



WAKE FOREST  
UNIVERSITY

COMBINED BULLETIN OF

The Undergraduate Schools,  
Graduate School of Arts and Sciences  
and School of Divinity



Announcements for 2021-2022



# THE UNDERGRADUATE SCHOOLS GRADUATE SCHOOL OF ARTS AND SCIENCES AND SCHOOL OF DIVINITY

ANNOUNCEMENTS FOR 2021-2022

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The course offerings and requirements of the undergraduate schools are continually under examination, and revisions are expected. This Bulletin presents the offerings and requirements in effect at the time of publication and in no way guarantees that the offerings and requirements will remain the same.

Every effort is made to provide advance information of any changes.

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# THE UNIVERSITY

*Wake Forest University is characterized by its devotion to the liberal arts and professional preparation, its strong sense of community and fellowship, and its encouragement of free inquiry and expression.*

Wake Forest Manual Labor Institute was founded in 1834 by the Baptist State Convention of North Carolina. The school opened its doors on February 3 with Samuel Wait as principal. Classes were first held in a farmhouse on the Calvin Jones plantation in Wake County, North Carolina, near which the village of Wake Forest later developed.

Re-chartered in 1838 as Wake Forest College, Wake Forest is one of the oldest institutions of higher learning in the state. The School of Law was established in 1894 and was followed by a two-year medical school in 1902. Wake Forest was a college for men until World War II, when women were admitted for the first time.

In 1941, the medical school moved to Winston-Salem to become affiliated with North Carolina Baptist Hospital and was renamed the Bowman Gray School of Medicine.

In 1946, the trustees of Wake Forest and the Baptist State Convention of North Carolina accepted a proposal by the Z. Smith Reynolds Foundation to relocate the College to Winston-Salem, 100 miles to the west. Charles and Mary Reynolds Babcock donated much of the R.J. Reynolds family estate as the site for the campus, and building funds were received from many sources. From 1952 to 1956, the first 14 buildings were constructed in Georgian style on the new campus. The move to Winston-Salem took place in the summer of 1956; the original, or "old" campus, is now home to Southeastern Baptist Theological Seminary.

Following the move, Wake Forest grew considerably in enrollment, programs, and stature and became a university in 1967. The School of Business Administration, first established in 1948, was named the Charles H. Babcock School of Business Administration in 1969 and admitted its first graduate students in 1971. In 1972, the school enrolled only graduate students and the name was changed to the Charles H. Babcock Graduate School of Management; departments of business and accountancy and economics were established in the College. In 1980, the Department of Business and Accountancy was reconstituted as the School of Business and Accountancy; the name was changed to the Wayne Calloway School of Business and Accountancy in 1995. On July 1, 2009, the Wayne Calloway School of Business and Accountancy and the Charles H. Babcock Graduate School of Management officially merged under the name Wake Forest University Schools of Business. In 2013, the name was changed to the Wake Forest University School of Business.

The Division of Graduate Studies, established in 1961, is now organized as the Graduate School and encompasses advanced work in the arts and sciences on both the Reynolda and Bowman Gray campuses. In 1997, the medical school was renamed the Wake Forest University School of Medicine; its campus is now known as the Bowman Gray Campus. The School of Divinity was established in 1999.

Wake Forest honors its Baptist heritage in word and deed. The University fulfills the opportunities for service arising out of that heritage.

Governance is by an independent Board of Trustees; there are advisory boards of visitors for Wake Forest College, each professional school and Z. Smith Reynolds Library. A joint board of University trustees and trustees of the North Carolina Baptist Hospital is responsible for Wake

Forest University Baptist Medical Center, which includes the hospital and the medical school.

The College, the School of Business, the School of Law, the Graduate School and the School of Divinity are located on the Reynolda Campus in northwest Winston-Salem. The Wake Forest School of Medicine is four miles away, near the city's downtown. The Wake Forest University Charlotte Center, located in that city's acclaimed uptown business district, is home to select graduate business programs. The University also offers instruction regularly at Casa Artom in Venice, at Worrell House in London, at Flow House in Vienna, in a newly opened facility in Washington, D.C., and in several other places around the world.

The College offers courses in more than 40 fields of study leading to the baccalaureate degree.

The School of Divinity offers the master of divinity degree and joint degree programs in law, education, counseling and sustainability in conjunction with other divisions of the University.

The Wake Forest School of Business offers a four-year bachelor of science degree, with majors in accountancy, business and enterprise management, finance, and mathematical business (offered jointly with the Department of Mathematics); and four graduate degree programs: master of science in accountancy (MSA), master of arts in management (MA), master of business administration (MBA), and master of science in business analytics (MSBA).

The School of Law offers the juris doctor and master of laws in American law degrees. The school also offers a joint JD programs with the School of Business and the School of Divinity.

In addition to the doctor of medicine degree, the Wake Forest School of Medicine offers, through the Graduate School, programs leading to the master of science and doctor of philosophy degrees in biomedical sciences. The School of Medicine and the School of Business offer a joint MD/MBA program.

The Graduate School confers the master of arts, master of arts in education, master of arts in liberal studies, and master of science degrees in the arts and sciences and the doctor of philosophy degree in biology, chemistry and physics. The Graduate School also offers an MFA in documentary film and dual degree programs with the School of Medicine and the School of Business.

The Higher Education Act requires that institutions of higher education make available by October 15 of each year a copy of the Equity in Athletics Disclosure Act annual report to any student who requests one. Please contact the Athletic Department to request a copy of this document.

# UNIVERSITY MISSION AND STATEMENT OF PURPOSE

## Statement of Mission and Purpose

Wake Forest is a university dedicated to the pursuit of excellence in the liberal arts and in graduate and professional education. Its distinctiveness in its pursuit of its mission derives from its private, coeducational, and residential character; its size and location; and its Baptist heritage. Each of these factors constitutes a significant aspect of the unique character of the institution.

The University is now comprised of six constituent parts: Wake Forest College, the Graduate School of Arts and Sciences, the School of Law, the School of Medicine, the School of Business and the School of Divinity. It seeks to honor the ideals of liberal learning, which entail commitment to transmission of cultural heritages; teaching the modes of learning in the basic disciplines of human knowledge; developing critical appreciation of moral, aesthetic and religious values; advancing the frontiers of knowledge through in-depth study and research; and applying and utilizing knowledge in the service of humanity.

Wake Forest has been dedicated to the liberal arts for over a century and a half; this means education in the fundamental fields of human knowledge and achievement, as distinguished from education that is technical or narrowly vocational. It seeks to encourage habits of mind that ask “why,” that evaluate evidence, that are open to new ideas, that attempt to understand and appreciate the perspectives of others, that accept complexity and grapple with it, that admit error, and that pursue truth. Wake Forest College has by far the largest student body in the University, and its function is central to the University’s larger life. The College and the Graduate School are most singularly focused on learning for its own sake; they therefore serve as exemplars of specific academic values in the life of the University.

Beginning as early as 1894, Wake Forest accepted an obligation to provide professional training in a number of fields, as a complement to its primary mission of liberal arts education. This responsibility is fulfilled in the conviction that the humane values embodied in the liberal arts are also centrally relevant to the professions. Professional education at Wake Forest is characterized by a commitment to ethical and other professional ideals that transcend technical skills. Like the Graduate School, the professional schools are dedicated to the advancement of learning in their fields. In addition, they are specifically committed to the application of knowledge to solving concrete problems of human beings. They are strengthened by values and goals which they share with the College and Graduate School, and the professional schools enhance the work of these schools and the University as a whole by serving as models of service to humanity.

Wake Forest was founded by private initiative, and ultimate decision-making authority lies in a privately appointed Board of Trustees rather than in a public body. Funded to a large extent from private sources of support, it is determined to chart its own course in the pursuit of its goals. As a co-educational institution it seeks to “educate together” persons of both sexes and from a wide range of backgrounds—racial, ethnic, religious, geographical, socio-economic and cultural. Its residential features are conducive to learning and to the pursuit of a wide range of co-curricular activities. It has made a conscious choice to remain small in overall size; it takes pride in being able to function as a community rather than a conglomerate. Its location in the Piedmont

area of North Carolina engenders an ethos that is distinctively Southern, and more specifically North Carolinian. As it seeks further to broaden its constituency and to receive national recognition, it is also finding ways to maintain the ethos associated with its regional roots.

Wake Forest is proud of its Baptist and Christian heritage. For more than a century and a half, it has provided the University an indispensable basis for its mission and purpose, enabling Wake Forest to educate thousands of ministers and lay people for enlightened leadership in their churches and communities. Far from being exclusive and parochial, this religious tradition gives the University roots that ensure its lasting identity and branches that provide a supportive environment for a wide variety of faiths. The Baptist insistence on both the separation of church and state and local autonomy has helped to protect the University from interference and domination by outside interests, whether these be commercial, governmental, or ecclesiastical. The Baptist stress upon an uncoerced conscience in matters of religious belief has been translated into a concern for academic freedom. The Baptist emphasis upon revealed truth enables a strong religious critique of human reason, even as the claims of revelation are put under the scrutiny of reason. The character of intellectual life at Wake Forest encourages open and frank dialogue and provides assurance that the University will be ecumenical and not provincial in scope, and that it must encompass perspectives other than the Christian. Wake Forest thus seeks to maintain and invigorate what is noblest in its religious heritage.

## History and Development

Since 1834, Wake Forest College has developed its distinctive pattern of characteristics: tenacity, independence, a fierce defense of free inquiry and expression, and a concern that knowledge be used responsibly and compassionately. Its growth from a small sectarian school to one of the nation’s most significant private universities proves the value of these core characteristics.

The brief history of Wake Forest is useful in understanding the University as it is today and appreciating the process through which it developed.

### Chronological History of Wake Forest University

Year	Event
1834	Founded in the town of Wake Forest, North Carolina, as Wake Forest Manual Labor Institute by the Baptist State Convention of North Carolina. <b>Samuel Wait, president</b>
1838	Named Wake Forest College
1845	<b>William Hooper, president</b>
1849	<b>John Brown White, president</b>
1854	<b>Washington Manly Wingate, president</b>
1879	<b>Thomas Henderson Pritchard, president</b>
1884	<b>Charles Elisha Taylor, president</b>
1894	School of Law established
1902	Two-year School of Medicine established
1905	<b>William Louis Poteat, president</b>
1921	First summer session
1927	<b>Francis Pendleton Gaines, president</b>

1930	<b>Thurman D. Kitchin, president</b>	1997	Change of name to Wake Forest University School of Medicine
1941	Relocation of the School of Medicine to Winston-Salem and eventual change of name to Bowman Gray School of Medicine and association with the North Carolina Baptist Hospital	1998	Purchased Flow House in Vienna to serve as an academic international house for students
1942	Women admitted as undergraduate students	1999	Divinity School founded
1950	<b>Harold Wayland Tribble, president</b>	2005	<b>Nathan O. Hatch, president</b>
1953	Wake Forest becomes a founding member of the Atlantic Coast Conference	2008	Wake Forest announces it will become the first Top-30 National University to no longer require admission applicants to submit standardized test scores. This is a distinction we still hold.
1956	Move to Winston-Salem, 100 miles west, in response to an endowment from the Z. Smith Reynolds Foundation. No American college has picked up roots as deep and moved them so far.	2009	The Wayne Calloway School of Business and Accountancy and the Charles H. Babcock Graduate School of Management officially merged under the name Wake Forest University Schools of Business (now named Wake Forest University School of Business)
1961	Graduate School of Arts and Sciences established	2010	Wake Forest begins a 10-year, \$625 million construction effort that enhances academic, residential and athletic facilities.
1962	First major private university in the South to integrate with the enrollment of Edward Reynolds	2012	Opening of Wake Forest University Charlotte Center in uptown Charlotte, N.C.
1967	<b>James Ralph Scales, president</b>	2017	Opening of Wake Downtown, home to new biomedical sciences and engineering programs; opening of the Wake Washington Center at One Dupont Circle, Washington, D.C.
1967	Change of name to Wake Forest University		
1969	Charles H. Babcock Graduate School of Management established		
1974	Purchased Casa Artom in Venice to serve as an academic international house for students		
1977	Purchased Worrell House in London to serve as an academic international house for students		
1983	<b>Thomas K. Hearn Jr., president</b>		
1984	Sesquicentennial anniversary		
1986	Established governing independence from the Baptist State Convention of North Carolina		
1994	Carnegie Foundation recognizes Wake Forest as a Doctoral II institution, an upgrade that qualifies the University for consideration as a National University according to U.S. News & World Report rankings		
1995	School of Business and Accountancy is renamed the Wayne Calloway School of Business and Accountancy		
1996	Wake Forest becomes the first college in the history of the U.S. News rankings to advance from classification as a Regional University to a Top-30 National University. It remains the only school to make this jump.		

# ACCREDITATION

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**Wake Forest University is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award baccalaureate, masters, and doctorate degrees.** For questions about the accreditation of Wake Forest University contact:

The Commission on Colleges  
1866 Southern Lane  
Decatur, Georgia, 30033-4097  
Telephone: 404-679-4500

**The School of Divinity** is accredited by the Commission on Accrediting of the Association of Theological Schools in the United States and Canada (ATS).

**The School of Law** is a member of the Association of American Law Schools, the American Bar Association, and is listed as an approved school by the Council of the Section of Legal Education and Admissions to the Bar of the American Bar Association and by the Board of Law Examiners and the Council of the North Carolina State Bar.

**The School of Business** is accredited by the Association to Advance Collegiate School of Business.

**The School of Medicine** is a member of the Association of American Medical Colleges and is fully accredited by the Liaison Committee on Medical Education, the joint accrediting body of the Association of American Medical Colleges and the American Medical Association. The Wake Forest University Physician Assistant program is accredited by the Accreditation Review Commission on Education for the Physician Assistant Inc. (ARC-PA). For more information on the accreditation status of the program, visit the ARC-PA website (<http://www.arc-pa.org/accreditation/accredited-programs/>) or the medical school website (<https://school.wakehealth.edu/About-the-School/Academic-Accreditation/>). The Nurse Anesthesia program is accredited by the Council on Accreditation of Nurse Anesthesia Educational Programs (<https://www.coacna.org/Pages/default.aspx>) (COA).

The program in counseling leading to the master of arts in education degree is accredited by the Council for the Accreditation of Counseling and Related Educational Programs.

Wake Forest University is a member of many major institutional organizations and associations at the national, regional and statewide levels, including the following: The American Council on Education, the Association of American Colleges, the National Association of Independent Colleges and Universities, the Council of Graduate Schools in the United States, the Commission on Colleges of the Southern Association of Colleges and Schools, Oak Ridge Associated Universities, Southern Universities Conference, the North Carolina Conference of Graduate Schools, the North Carolina Association of Colleges and Universities, the North Carolina Department of Public Instruction and North Carolina Independent Colleges and Universities. In addition, many offices of the University are members of associations which focus on particular aspects of university administration.

Wake Forest has chapters of the principal national social fraternities and sororities, professional fraternities and honor societies, including Phi Beta Kappa and Sigma Xi. There is an active chapter of the American Association of University Professors on campus.



# BUILDINGS AND GROUNDS

The Reynolda Campus of Wake Forest, which opened in the summer of 1956 upon the institution's move from its original home near Raleigh, is situated on approximately 340 acres. Its physical facilities consist of more than 80 buildings, most of which are of modified Georgian architecture and constructed of Old Virginia brick trimmed in granite and limestone.

The main Quadrangle, *Hearn Plaza*, is named for Wake Forest's 12th president, Thomas K. Hearn Jr., who served from 1983 to 2005. *Manchester Plaza*, named for benefactors and Wake Forest parents Doug Manchester (P '03, P '06) and Elizabeth Manchester (P '03, P '06), is located on south campus. The *Reynolda Gardens complex*, consisting of about 128 acres and including Reynolda Woods, Reynolda Village, Reynolda Gardens, and Reynolda House and Museum of American Art, is adjacent to the campus. The Graylyn International Conference Center is nearby.

*Wait Chapel*, named in memory of Samuel Wait, the first president of the College, seats 2,227. The Wait Chapel tower contains the Janet Jeffery Carlike Harris Carillon, an instrument of 48 bells.

*Divinity and Religious Studies Building* houses the Department for the Study of Religions and the School of Divinity.

*Reynolda Hall*, across the upper plaza from Wait Chapel, houses most of the administration, including offices of the President, the Provost, the Dean of the College, the Center for Global Programs and Studies, the Office of Personal and Career Development and the University Chaplain. It is also home of a large dining facility for the Reynolda Campus.

*Benson University Center*, named for the father of benefactor Clifton Linwood Benson Jr. ('64), houses the Student Union and is the central hub for student activities, services and events. The bottom floor of Benson is the home to Pugh Auditorium movie theater and several food venues, and the LGBTQ Center is located on the second floor.

*Z. Smith Reynolds Library and its Edwin Graves Wilson Wing*, named in honor of the Class of 1943 graduate who became a distinguished English professor and administrator at his alma mater, house the main collection of books and documents on the Reynolda Campus. Along with eight floors of open stacks, it has reading and reference rooms for study.

*Carswell Hall*, named in honor of alumnus and benefactor Guy T. Carswell (1922, LLD '62), houses the Department of Communication and the Annenberg Forum, a large multimedia lecture space.

*Winston Hall* houses the Department of Biology and *Salem Hall* is home to the Department of Chemistry. Both buildings have laboratories as well as classrooms and special research facilities. The *Olin Physical Laboratory* houses the physics department.

*Harold W. Tribble Hall*, named for Wake Forest's 10th president, accommodates primarily humanities departments. It has seminar rooms, a philosophy library and a multimedia lecture space, DeTamble Auditorium.

*The Museum of Anthropology* houses the Department of Anthropology and North Carolina's only museum dedicated to the study of world cultures.

*Calloway Center for Mathematics and Computer Science* was named in honor of former University Trustee Wayne Calloway ('59, LLD '88, P '95). The building houses the Departments of Mathematics and Statistics and

Computer Science in Manchester Hall and the Departments of Politics and International Affairs, Economics and Sociology in Kirby Hall.

*Farrell Hall*, named for Wake Forest parents and benefactors Michael (LLD '13, P '10) and Mary (P '10) Farrell, broke ground in April 2011 and is home to the School of Business. It hosted its first classes in July 2013 and was formally dedicated in November 2013.

*William B. Greene Jr. Hall*, named for alumnus and benefactor Bill Greene ('59), houses the Departments of Psychology, German and Russian, and Romance Languages.

*James R. Scales Fine Arts Center*, named for James Ralph Scales, Wake Forest's 11th president, supports the functions of studio art, theatre, musical and dance performances and instruction in art history, drama and music. Off its main lobby is the Charlotte and Philip Hanes Gallery, a facility for special exhibitions. The art wing includes spacious studios for drawing, painting, sculpture and printmaking, along with a smaller gallery and classrooms. Adjacent to the art wing is a dance studio for performances and rehearsals. The theatre wing has design and production areas and two technically complete theatres, the larger of traditional design and the smaller for ring productions. The music wing contains classrooms, practice rooms for individuals and groups, the offices of the Department of Music and Brendle Recital Hall for concerts and lectures.

*Worrell Professional Center*, named for alumnus and benefactor T. Eugene Worrell ('40, LHD '79), houses the School of Law. Recent additions to Worrell in 2016 provided a new home for instruction in the Department of Health and Exercise Science.

The *ROTC Building* is home to the Wake Forest Reserve Officers Training Corps program and military science studies.

*Wake Forest Wellbeing Center*, comprised of the Sutton Center and the Historic W.N. Reynolds Gymnasium, was reimagined and officially dedicated in 2018. The Sutton Center, named for alumnus and benefactor Ben Sutton ('80, JD '83, P '14, P '16, P '19), provides a large venue for wellbeing, social and academic gatherings; and Historic W.N. Reynolds Gymnasium, named for a prominent member of the family that helped bring the campus to Winston-Salem, has courts for indoor sports, a swimming pool and Student Health Services.

Wake Forest is home to outstanding athletics facilities designed to enhance the health, wellbeing and competitive excellence of all Demon Deacon teams.

Adjacent to the Wellbeing Center are *Kentner Stadium*, *Manchester Athletic Center* and the *Kenneth D. Miller Center*, all of which are named for University benefactors. Kentner is home to the Demon Deacon field hockey team and the Manchester and Miller Centers house athletics administration.

The newest facilities on campus opened in September 2019. The *Sutton Sports Performance Center*, also named for Ben Sutton, and the *Shah Basketball Performance Center*, honoring benefactor and alumnus Mit Shah ('91), are dedicated to the strength, conditioning, sport-specific practice and nutrition of student-athletes.

*Spry Stadium*, home of Wake Forest men's and women's soccer, is situated across from North Campus housing. Named for the father of benefactor William D. Spry, Jr. (P '97), the facility is one of the best in the country.

*McCreary Field House*, named for alumnus and benefactor Bob McCreary ('61), opened in 2016, providing indoor practice facilities and weightlifting for all of Wake Forest's intercollegiate sports teams.

The *Arnold Palmer Golf Complex*, named in honor of alumnus, benefactor and Life Trustee Arnold Palmer ('51, LLD '70), includes the *Dianne Dailey Golf Learning Center*, which opened in 2010 and is named for the coach who led the women's golf program for 30 years, and the *Haddock Golf Center*, completed in 2016 and named for Jesse Haddock ('52, P '68), who coached the Deacons to three NCAA championships in his 32 years of service.

The three largest athletics venues are located 1.3 miles off the Reynolda Campus. *BB&T Field* is the home of the football team; basketball teams play in *Lawrence Joel Veterans Memorial Coliseum*, named after a decorated Vietnam War veteran from Winston-Salem; and baseball's home is *David F. Couch Ballpark*, named a 1984 graduate and benefactor.

*Alumni Hall* houses University Advancement, the University Police Department and the Department of Parking and Transportation.

*Porter B. Byrum Welcome Center*, named for alumnus and benefactor Porter B. Byrum (JD '42), is at the entrance to Wake Forest. The building allows prospective students and their families an opportunity to learn more about the University and to meet with admissions staff.

*The Barn*, built to resemble a North Carolina farm barn, offers opportunities for concerts, performances and other on-campus events.

The Wake Forest campus has a wide variety of housing options available to students in residence halls named for alumni, faculty, benefactors and Wake Forest presidents: *Babcock Hall*, *Bostwick Hall*, *Collins Hall*, *Davis Hall*, *Efird Hall*, *Huffman Hall*, *Johnson Hall*, *Kitchin Hall*, *Luter Hall*, *Martin Hall*, *North Campus Apartments*, *Palmer Hall*, *Piccolo Hall*, *Polo Hall*, *Poteat Hall*, *Student Apartments*, *South Hall* and *Taylor Hall*. *Dogwood and Magnolia Residence Halls* opened in August 2013 and are coeducational by floor, wing or apartment. In January 2014, the North Dining facilities opened adjacent to the new residence halls providing alternative dining options to the north side of campus. In January 2017, *Maya Angelou Residence Hall*, named in honor of the distinguished Wake Forest faculty member and internationally acclaimed poet, opened. It is also home to the Office of Residence Life and Housing as well as the Deacon OneCard Office.

In January 2017, converted tobacco warehouses became the home of new degree programs in biomedical sciences and engineering. Known as *Wake Downtown*, this academic extension is located a 13-minute shuttle ride from the Reynolda Campus. That same year, the University opened *Wake Washington*, a home of academic operations on DuPont Circle in Washington, D.C.

Wake Forest is the only Top-30 national university to own academic-residential houses in three foreign countries. The University purchased *Casa Artom*, located on the Grand Canal in Venice and named for beloved medical school professor Dr. Camillo Artom, in 1974. Three years later, it acquired a London facility and named it *Worrell House* in honor of benefactor T. Eugene Worrell ('40, LHD '79) and his wife, Anne Worrell. And in 1998, *Flow House*, located in Vienna and named in honor of alumnus, benefactor and Life Trustee Victor I. Flow ('52, P '83) and his wife, Roddy Flow (P '83), became part of the Wake Forest family.

# ENROLLMENT

## All Schools—Fall 2020

School	Men	Women	Total
Undergraduate Schools	2,519	2,922	5,441
The Graduate School (Reynolda Campus)	227	431	658
The Graduate School (Bowman Gray Campus)	148	196	344
The School of Law	268	369	637
Divinity School	39	53	92
School of Business (Graduate)	469	326	795
The Wake Forest School of Medicine (Includes Physician Assistant, Nurse Anesthesia and Doctor of Nursing Practice)	344	478	822
<b>University Totals</b>	<b>4,014</b>	<b>4,775</b>	<b>8,789</b>

Geographic Distribution—Undergraduates

### By State (2020)

State	Number
Alabama	29
Alaska	3
Arizona	11
Arkansas	7
California	216
Colorado	67
Connecticut	187
Delaware	20
District of Columbia	21
Florida	358
Georgia	262
Hawaii	0
Idaho	2
Illinois	149
Indiana	14
Iowa	4
Kansas	8
Kentucky	37
Louisiana	28
Maine	15
Maryland	233
Massachusetts	252
Michigan	21
Minnesota	29
Mississippi	5
Missouri	32
Montana	3
Nebraska	2
Nevada	3
New Hampshire	13
New Jersey	344

New Mexico	3
New York	430
North Carolina	1,006
North Dakota	0
Ohio	87
Oklahoma	5
Oregon	8
Pennsylvania	207
Rhode Island	16
South Carolina	132
South Dakota	1
Tennessee	115
Texas	175
Utah	3
Vermont	10
Virginia	231
Washington	18
West Virginia	15
Wisconsin	11
Wyoming	2

### Countries Represented (Fall 2020)

- Australia
- Austria
- The Bahamas
- Belgium
- Bermuda
- Brazil
- Bulgaria
- Canada
- China
- Cyprus
- Dominican Republic
- Estonia
- Ethiopia
- France
- Gaza Strip
- Germany
- Guatemala
- Honduras
- Hong Kong
- Iceland
- India
- Indonesia
- Ireland
- Israel
- Italy
- Jamaica
- Japan
- Macau
- Mexico
- Netherlands

- New Zealand
- Norway
- Oman
- Pakistan
- Peru
- Philippines
- Romania
- Serbia
- South Africa
- South Korea
- Spain
- Sweden
- Switzerland
- Taiwan
- United Kingdom
- Vietnam

**International Students: 498**

# UNIVERSITY POLICIES

- Family Educational Rights and Privacy Act
- Inventions and Patent & Copyright Policy
- Non-Discrimination Statement
- Policy on Sexual Harassment
- Students' Rights and Responsibilities
- Summary of Computing Rights and Responsibilities

Wake Forest University endorses, as a basic principle of University life, the concept of responsible student freedom, which carries with it the recognition by each student of the rights and obligations of other members of the University community.

The University encourages students to conduct themselves as mature men and women and invites them to participate in the formation of rules and to assume major responsibility in judicial decisions. At the same time, all participants in University life must remember that, by the charter of the University, the board of trustees is ultimately responsible for the University and for its operation. Wake Forest also expects its students to abide by local, state, and federal laws, as well as by generally accepted moral standards. Although the University's role is not to duplicate civil law enforcement or judicial action, it may exercise authority for reasons appropriate to its function as an educational institution.

In keeping with its historic concern for students individually and corporately, Wake Forest has a legitimate interest in their welfare in and out of class, on campus and off. The University is concerned with student actions that are inconsistent with student obligations to the educational community. When, in the opinion of the University, the conduct of a student at any place is reprehensible or detrimental to the best interests of that student, his or her fellow students, or the University, appropriate disciplinary action will be taken.

Wake Forest believes in individual freedom, not as a right, but as a responsibility: freedom to be and to become. Attendance at Wake Forest is a privilege, not a right. The University's traditions and principles, accepted by each student in his or her voluntary registration, evolve from the core of this individual concept of freedom and responsibility. Therefore, it is assumed that the student who elects to come to Wake Forest does so with the intent of being, in fact and in spirit, a cooperating member of this community.

## Family Educational Rights and Privacy Act

The Family Educational Rights and Privacy Act (FERPA) affords students certain rights with respect to their education records. They are:

Directory information may be disclosed by Wake Forest for any purpose in its discretion without the consent of the student. Students have the right to refuse to permit the designation of any or all of the above information as directory information. In that case, this information will not be disclosed except with the consent of the student, or as otherwise allowed by FERPA. Any student refusing to have any or all of the designated directory information disclosed must file written notification to this effect with this institution at the Office of the Registrar. Forms are available at that office. If a refusal is not filed, Wake Forest assumes that a student does not object to the release of the directory information designated.

1. **Right to inspect and review the student's education records within 45 days of the day the University receives a request for access.** Students should submit to the registrar, dean, head of the academic department, or other appropriate official, written requests that identify the record(s) they wish to inspect. The University official will make arrangements for access and notify the students of the time and place where the records may be inspected. If the records are not maintained by the University official to whom the request was submitted, that official shall advise the student of the correct official to whom the request should be made.
2. **The right to request amendment of the student's education records that the student believes are inaccurate or misleading.** Students may ask the University to amend a record that they believe is inaccurate or misleading. The student should write the University official responsible for the record, clearly identify the part of the record they want changed, and specify why it is inaccurate or misleading. If the University decides not to amend the record as requested by the student, the University will notify the student of the decision and advise the student of his or her right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.
3. **The right to consent to disclosures of personally identifiable information contained in the student's education records, except to the extent that FERPA authorizes disclosures without consent.** One exception which permits disclosure without consent is disclosure to school officials with legitimate educational interests. A school official is a person employed by the University in an administrative, supervisory, academic or research, or support staff position (including law enforcement personnel and health staff); a person serving on the board of trustees; a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his or her tasks; or a person, company, or governmental unit with whom the University has contracted to perform duties or services involving education records. A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibility. Upon request, the University discloses education records without consent to officials of another school in which a student seeks or intends to enroll. The following information regarding students is considered directory information:
  - a. name
  - b. address
  - c. telephone number
  - d. electronic mail addresses
  - e. date and place of birth
  - f. major field of study
  - g. enrollment status (undergraduate or graduate, full or part-time)
  - h. grade level
  - i. participation in officially recognized activities and sports
  - j. weight and height of members of athletic teams
  - k. dates of attendance
  - l. degrees and awards received
  - m. the most recent previous educational agency or institution attended by the student, and
  - n. other similar information such as a photograph.
4. **The right to file a complaint with the U.S. Department of Education concerning alleged failures by the University to comply with the**



**requirements of FERPA.** The name and address of the Office that administers FERPA is:

Family Policy Compliance Office, U.S. Department of Education  
400 Maryland Avenue S.W.  
Washington, DC 20202-4605.

## Inventions and Patent & Copyright Policy

### Inventions

Review the policy here (<http://research.wfu.edu/files/2014/02/WFU-Patent-Policy.pdf>).

### Patent and Copyright Policies

Review the policies here (<http://groups.wfu.edu/CIT/copyrightpolicy.html>).

## Non-Discrimination Statement

Wake Forest University is committed to diversity, inclusion and the spirit of its motto, *Pro Humanitate*. In adherence with applicable laws and as provided by University policies, the University prohibits discrimination in its employment practices and its educational programs and activities on the basis of race, color, religion, national origin, sex, age, sexual orientation, gender identity and expression, genetic information, disability and veteran status.

The following person has been designated to handle inquiries regarding the University's non-discrimination policies:

Title IX Coordinator  
Section 504/ADA Coordinator  
[titleixcoordinator@wfu.edu](mailto:titleixcoordinator@wfu.edu)  
Reynolda Hall 307 Winston-Salem, NC 27106  
336-758-7258

Assistant Vice President Human Resources  
[AskHR@wfu.edu](mailto:AskHR@wfu.edu)  
2958 Reynolda Road, Winston-Salem, NC 27106  
(336)758-4700

Deputy Title IX Coordinators have also been designated and represent various University schools/divisions. Contact information for each Deputy Coordinator can be obtained from the University's Title IX Coordinator.

Inquiries concerning the application of anti-discrimination laws may be referred to the individuals listed above or to the Office for Civil Rights, United States Department of Education. For further information on notice of non-discrimination, visit <http://wdcrobcolp01.ed.gov/CFAPPS/OCR/contactus.cfm> for the address and phone number of the U. S. Department of Education office that serves your area, or call 1-800-421-3481.

## Policy on Sexual Harassment

Wake Forest University expects all members of its community to act in respectful and responsible ways towards each other. Wake Forest University is committed to providing programs, activities and an educational environment free from sex discrimination. This Student Sexual Misconduct Policy sets forth resources available to students, describes prohibited conduct, and establishes procedures for responding

to reports of sexual misconduct (including sexual assault, sexual harassment, and other unwelcome sexual behavior).

As a recipient of Federal funds, Wake Forest is required to comply with Title IX of the Higher Education Amendments of 1972, 20 U.S. C. § 1681 et seq. ("Title IX"), which prohibits discrimination on the basis of sex in education programs or activities. Sexual misconduct, as defined in this Policy, is a form of sex discrimination prohibited by Title IX.

This policy addresses complaints of sexual misconduct where the accused is a student of Wake Forest University. Complaints relating to sexual misconduct by a member of the University faculty or staff may be reported to the University's Title IX Coordinator. Details regarding Wake Forest's policy directed at sexual harassment by employees may be found at <http://www.wfu.edu/hr/policies/II-3.pdf>.

## Students' Rights and Responsibilities

**Introduction:** Wake Forest University exists for the transmission of knowledge, the pursuit of truth, the development of students, and the well-being of society. Free inquiry and free expression are indispensable to the attainment of these goals. The School of Divinity is committed to providing an environment that will encourage divinity students to develop the capacity for critical judgment and to engage in a sustained and independent search for truth. The School of Divinity is also dedicated to the principles of honor, mutual respect, and trust among the faculty and students. The common observance of professional ethics is basic to study and research.

**Rights:** The minimal standards of academic freedom outlined below are essential to any community of scholars. Any violation of these standards may be grounds for a student to initiate the grievance process.

**Freedom of access to higher education:** The facilities and services of the University should be open to all of its enrolled students, and the University should use its influence to secure equal access for all students to public facilities in the local community.

**Classroom and research environment:** Student performance will be evaluated solely on an academic basis, not on opinions or conduct in matters unrelated to academic standards.

**Protection of freedom of expression:** Students are free to take reasoned exception to the data or views offered in any course of study or research activity and to reserve judgment about matters of opinion, but they are responsible for learning the content of any course of study for which they are enrolled.

**Protection against improper academic evaluation:** Students have protection through orderly procedures against prejudiced or capricious academic evaluation. At the same time, they are responsible for maintaining standards of academic performance established for the program in which they are enrolled.

**Protection against improper disclosure:** Information about student views, beliefs, and political associations which professors acquire in the course of their work as instructors, advisers, and counselors is considered confidential. Protection against improper disclosure is a serious professional obligation. Judgments of ability and character may be provided under appropriate circumstances, always with the knowledge of consent of the student.

**Protection against harassment:** Students have protection through orderly procedures against physical (sexual, etc.) harassment and/or psychological abuse.

**Student records:** To minimize the risk of improper disclosure, access to academic and disciplinary records should be considered separately. Transcripts of academic records will contain only information about academic status. Information from disciplinary or counseling files will not be available to unauthorized persons on campus, or to any person off campus, without the written consent of the student involved, except where a judicial order of subpoena compels disclosure or health and safety emergency cases are involved. No records will be kept which reflect the political activities or beliefs of students. The dean of the School of Divinity should make provision for periodic review and possible destruction of non-current disciplinary records. Administrative staff and faculty members should respect confidential information that they acquire about students.

**Freedom of association:** Students bring to the campus a variety of interests previously acquired and develop many new interests as members of an academic community. They are free to organize and join associations to promote common interests.

**Freedom of inquiry and expression:** Students and their organizations are free to examine and discuss all questions of interest to them, and to express opinions publicly and privately. They are free to support causes by orderly means that do not disrupt the regular and essential operation of the University.

Students and their organizations will be allowed reasonable access to University facilities for academic purposes, organizational meetings, sponsored lectures, etc. Routine procedures required by the University for obtaining access to facilities are designed only to insure that there is orderly scheduling of a facility as well as adequate preparation for an event and that the occasion is conducted in a manner appropriate to an academic community. Students and their organizations are allowed to invite and hear any person of their choosing. The University's control of campus facilities cannot be used as a device of censorship.

**Student participation in University government:** As constituents of an academic community, students are free, individually and collectively, to express their views on issues of University policy and on matters of general interest to the student body.

**Off-campus freedom of students:** If activities of students result in violation of law, University officials should be prepared to apprise students of sources of legal counsel and may offer other assistance. Students who violate the law may incur penalties prescribed by civil authorities. Only where the University's interest as a community is clearly involved should the special authority of the University be asserted to consider off-campus violations. The student who incidentally violates University regulations in the course of his or her off-campus activity is subject to no greater penalty than would normally be imposed for such infractions on campus.

**Responsibilities:** The faculty expects students to be mature and responsible members of the community. Infractions of academic integrity include plagiarism, cheating on examinations, misrepresentation of the work of other scholars, and falsification or fabrication of data in reporting one's own research. These infractions, as well as acts that disrupt the educational environment and any violations of local or federal law that occur on the University campus or during University sponsored activities,

can be grounds for disciplinary action, which may include dismissal from the University.

## Summary of Computing Rights and Responsibilities

The policy applies to all computer and computer communication facilities owned, leased, operated, or contracted by the University. This includes, but is not limited to, tablets, personal computers, laptops, smart phones, computer networks, computer peripherals, and software, whether used for academic, administration, research or other purposes. This also includes use of University data or access to computer systems by personal devices such as computers, tablets, and smart phones by faculty, staff, students and guests. The policy extends to any use of University facilities to access computers elsewhere.

Wake Forest University provides each of its students and faculty with an email account. Outside of the classroom, email is an important means of communication between faculty, staff, and students. It is the responsibility of the student to regularly monitor his or her Wake Forest email account for University communications.

**Basic Principles.** The University's computing resources are for administrative, instructional, educational, and research use by the students, faculty, staff, vendors and contractors of Wake Forest University. Ethical standards which apply to other University activities (Honor Code, Social Regulations and Policies, and all local, state, and federal laws) apply equally to use of University computing resources.

As in all aspects of University life, users of the University's computing resources should act honorably and in a manner consistent with ordinary ethical obligations. Cheating, stealing, making false or deceiving statements, plagiarism, vandalism, and harassment are just as wrong in the context of computing resources as they are in all other domains.

Use of campus resources is restricted to authorized users. For the purposes of this policy, an "authorized user" is defined as an individual who has been assigned a login ID and authentication credentials such as a password for use of computing resources. Authorized users are responsible for the proper use of the accounts assigned to them under their login ID and authentication credentials. Users are also responsible for reporting any activities which they believe to be in violation of this policy, just as students are responsible for reporting Honor Code violations.

Use of these resources must be done:

- *In a manner consistent with the terms under which they were granted access*
- *In a way that respects the rights and privacy of other users; so as not to interfere with or violate the normal, appropriate use of these resources; and*
- *In a responsible manner and consistent with University policies and the workplace and educational environment.*

For faculty, staff, vendors, contractors, and other non-students, limited personal use of University issued computing resources is authorized so long as it does not impact University computers, network, or interfere with work related activities and is not prohibited by this or other policies.

For students, personal activity is allowed as long as it does not interfere with other University computers or network bandwidth and is not prohibited by this or other policies.

**Systems Monitoring.** This statement serves as notice to all users of campus computing resources that regular monitoring of system activities occurs and users should have no expectation of privacy while on the WFU network or computer systems. Only people engaged in supporting University computing resources are authorized to perform monitoring of systems and only for systems under their control.

**Policy Violations.** Suspected violation of this policy will be handled through the appropriate University process or office, such as administrative procedures, The Honor and Ethics Council, the Graduate Council, Dean's office, or Human Resources.

Violation of this policy may result in one or more of the following, in addition to any other actions deemed appropriate by the applicable authority:

- *Suspension of one's ability to perform interactive logins on relevant machines on campus.*
- *Suspension of one's ability to use the University's computing resources.*
- *Suspension of one's ability to send or receive email.*
- *Increased monitoring of further computer activity (beyond normal systems monitoring).*

**Locating Computing Policy Information and Policy Updates.** The above summary is based on the "Policy on Ethical and Responsible Use of Computing Resources". These policies may be updated, shortened, or expanded from time to time.

Full policies can be reviewed online (<https://is.wfu.edu/services/policies-and-standards/>).

# UNIVERSITY SERVICES

- Information Systems
- Libraries
- Parking and Transportation
- Student Health and Wellbeing
- University Police and Safety Services

## Information Systems

Information Systems (<https://is.wfu.edu/>) supports University instruction, research, and administrative needs through computing and telecommunications services. The University's computing resources serve both academic and business needs. Wake Forest's network infrastructure includes a 10-gigabit-per-second Ethernet backbone, a mixture of 100-Megabit and 1-Gigabit-per-second switched connectivity to the desktop, and pervasive wireless connectivity in all campus buildings and select outdoor locations.

All students are given a WFU account. This account is maintained as long as the student is enrolled and provides access to networked computer resources such as electronic mail, client software packages, various courseware applications, and administrative services. Students are able to reset their forgotten password or change their expired password through a self-service password management portal, [account.wfu.edu](https://account.wfu.edu/pwm/public/) (<https://account.wfu.edu/pwm/public/>). Eduroam provides a secured WiFi network for visiting students to use their home institution's WiFi credentials to access WiFi network services. Our students can take advantage of this service by using their Wake Forest credentials when visiting other eduroam participating institutions.

All undergraduate students are required to have a laptop with minimum configuration requirements to be able to handle all academic software. Students have the choice to bring their own device or purchase a laptop through the WakeWare (<http://wakeware.wfu.edu>) program. WakeWare provides students the opportunity to purchase a specially selected laptop configured to run academic technology at a negotiated price, bundled with extended warranties and protection, and provided with on-campus support. WakeWare evaluates new models, as available, to offer the most up-to-date technology to our students. WakeWare (<http://wakeware.wfu.edu/>) laptops have been thoroughly tested to ensure compatibility with academic software. Students receiving institutional aid qualify for a grant to cover the full cost of the WakeWare Standard computer and have two years to redeem their grant.

The Service Desk, a service center, located on the main floor of the Z. Smith Reynolds Library provides on-campus support for all IT-related questions and assistance. The Tech Shop, located in the Service Desk, is an authorized Apple, Dell, and Lenovo ThinkPad service center. With extended Service Desk hours, the online help portal, AskDeac (<https://help.wfu.edu/>), as well as Live Chat, there are extensive options for getting IT help. In addition, the IS website (<https://is.wfu.edu/>) provides timely announcements and in depth service-related content.

All students have access to licensed software and tools, via [software@WFU](mailto:software@WFU) (<http://software.wfu.edu>), for coursework, degree projects, and research; including SPSS, a statistical package used for data analysis, forecasting, and financial modeling; Maple; and Matlab, an interactive environment for algorithm development, data visualization, and data analysis.

Students also have access to computing resources outside the University. The University is a member of:

- The Inter-University Consortium for Political and Social Research (ICPSR), located at the University of Michigan. Membership in ICPSR provides faculty and students with access to a large library of data files, including public opinion surveys, cross-cultural data, financial data, and complete census data.
- EDUCAUSE, a national consortium of colleges and universities concerned with computing issues.
- Eduroam, a global wireless network access service for research and education, accessed using Wake Forest credentials.

Information Systems maintains an extensive array of online resources, including the Wake Information Network (WIN), Banner, and more, that support University admissions, student registration, grade processing, and other academic applications.

For advanced software with high computing requirements, WFU offers cloud-based virtualization. Engineering, among other departments, utilize a performance Workspace to run software, such as AutoCAD and COMSOL, needed for their Capstone Projects. The Wake Forest University Distributed Environment for Academic Computing (DEAC) cluster, a Linux-based High Performance Computing cluster provides supercomputing services academic research and coursework. These systems are available to students 24 hours a day through the Wake Forest University Network.

Students have unlimited access and full-time support using the One Button Studio (<https://is.wfu.edu/services/one-button-studio/>), a fully automated video production facility, located in Z. Smith Reynolds Library behind the IS Service Desk. Wake Forest also has a student run Makerspace, named the WakerSpace (<https://is.wfu.edu/academic-technology/wakerspace/>). The space allows students to not only build physical projects using technology such as 3D printers, laser cutters, and solder stations, but also to learn skills such as podcasting, knitting, sewing, and woodworking through workshop partnerships with Facilities, Information Systems, and other resources across campus. By offering both academic and non-academic programs, the WakerSpace serves a broad range of interests across campus.

Information Systems offers cable television and streaming services. All residence hall rooms are equipped with cable TV connections and/or the ability to stream cable TV. Cable and/or streaming services provide access to campus information, news, weather, select HDTV channels and DVR recording via Stream2 (<https://is.wfu.edu/services/stream2/>).

## Libraries

### Overview

The libraries of Wake Forest University support instruction and research at the undergraduate level and in the disciplines awarding graduate degrees. The libraries of the University hold membership in the Association of Southeastern Research Libraries.

The Wake Forest University libraries include the Z. Smith Reynolds (ZSR) Library (<https://zsr.wfu.edu/>), located on the Reynolda Campus and supports the undergraduate College, the Wake Forest School of Business, the Graduate School of Arts and Sciences, and the School of Divinity. The Law Library (<http://library.law.wfu.edu/>), housed in the Worrell Professional Center on the Reynolda Campus, serves the School of Law. The Coy C. Carpenter Library (<https://school.wakehealth.edu/Carpenter->

Library/) serves the Wake Forest School of Medicine and is located on the Bowman Gray Campus.

## Collections

The three library collections total over 2.4 million titles, including over 1.4 million e-books, more than 100,000 electronic journals and over 15,000 DVDs as well as streaming media and other formats. The ZSR Library serves as a congressionally designated selective federal depository. The Law Library holds nearly 130,000 volumes and the Coy C. Carpenter Library holds nearly 27,000 volumes. The three libraries share an online search portal, which provides access to books, electronic resources, journals and databases. Through interlibrary loan service (<https://zsr.wfu.edu/delivers/ill/>), students, faculty and staff may obtain materials from other libraries at no charge.

## Z. Smith Reynolds Library

The Z. Smith Reynolds Library (ZSR) provides comprehensive reference and research services (<https://zsr.wfu.edu/research/>) in-person and online. Research Librarians work with individual classes across the disciplines on research papers and library users can request personal research sessions (<https://zsr.wfu.edu/research/support/sessions/>) with Research Librarians at all phases of their research process. Library faculty also teach elective courses in the fundamentals of research and information literacy and upper-level courses geared towards research in the disciplines and special topics in information. The Digital Initiatives & Scholarly Communication (<https://zsr.wfu.edu/digital-scholarship/>) librarians and staff support and empower faculty scholarship through digital tools, methods, publication, and preservation.

Special Collections & Archives (SCA) (<https://zsr.wfu.edu/special/about/>) in the ZSR Library is the repository for the Baptist Historical Collection of North Carolina, Manuscripts, the Rare Book Collection, and the University Archives (<https://zsr.wfu.edu/special/collections/archives/>). The Baptist Historical Collection contains significant books, periodicals, manuscripts, and church records relating to North Carolina Baptists, as well as the personal papers of prominent ministers, educators, and government officials with ties to Wake Forest. SCA's Manuscripts include the papers of alumnus Harold Hayes (editor of *Esquire* magazine in the 1960s and 1970s) and other alumni, the Maya Angelou Film & Theater Collection, and the records of the Irish Dolmen Press. The Rare Books Collection, which includes the collections of Charles H. Babcock, Charles Lee Smith, and other donors, has collection strengths in 18th-20th century British, American, and Irish literature, African-American history and literature, and the history of material texts. SCA maintains the University Archives which serves as the primary repository for the historical records of Wake Forest University. The University Archives collects, describes, preserves, and exhibits University records (including electronic and born-digital) that contain historical, administrative, legal, or fiscal value. The records include documentation of the student experience, departmental records, and the papers of faculty. All are welcome to use the SCA collections, many of which are available online in SCA Digital Collections (<https://zsr.wfu.edu/special/collections/digital/>). Please contact [archives@wfu.edu](mailto:archives@wfu.edu) for access to the collections by appointment or submitting a specific question.

## Spaces

The Z. Smith Reynolds library has group study rooms equipped with large screen monitors and individual study carrels that can be booked online (<https://wfu.libcal.com/reserve/>). Publicly available Windows and Macintosh computers are available in the Scholars Commons, and media viewing stations are available in the Media Room. Multimedia equipment,

Chromebooks, tablets, and other technology devices may be reserved for checkout. Reference (<https://zsr.wfu.edu/research/support/>) and online chat (<https://zsr.wfu.edu/chat/>) are available to help library visitors to find resources and research assistance. The library has a 118-seat auditorium that is normally available for use by Wake Forest community groups for programs, lectures, and film screenings. For at least the fall 2021 semester, the auditorium will be used exclusively as classroom space.

ZSR houses the Information Systems Service Desk (<https://is.wfu.edu/>), the Center for the Advancement of Teaching (<https://cat.wfu.edu/>), and The Writing Center (<http://writingcenter.wfu.edu/>). The Center for the Advancement of Teaching is a resource center for Wake Forest faculty at all stages of their careers. The Writing Center provides help to guide students through their writing process.

## Access

ZSR library is committed to creating an accessible, enriching, and welcoming community space for all.

The library's hours vary by semester and can be found at [zsr.wfu.edu/calendar](https://zsr.wfu.edu/calendar) (<https://bulletin.wfu.edu/university/university-services/libraries/zsr.wfu.edu/calendar/>). A room located to the right of the entrance to the library and may be accessed by keycard when the library is closed, offering access to multifunctional printers/copiers/scanners, and the library's bank of touchless smart lockers for pickup of requested materials. The study room on the left of the entrance houses the Camino Bakery (<https://dining.wfu.edu/locations/starbucks-zsr-library/>) coffeeshop. Check out the hours and events calendar (<https://zsr.wfu.edu/calendar/>) to stay up to date. See a full description of the ZSR Library resources and services at [zsr.wfu.edu](https://zsr.wfu.edu) (<https://zsr.wfu.edu/>).

## Bowman Gray Campus and Innovation Quarter

All faculty, staff and students in the Wake Forest University Graduate School of Arts and Sciences have full and unrestricted access to the Coy C. Carpenter Library of Wake Forest School of Medicine at its main facility on the first floor of the Gray Building. The Library is centrally located within the Wake Forest-affiliated hospital (Wake Forest Baptist Medical Center), and most of the resources are available online.

## Parking and Transportation

### Motor Vehicle Registration and Fees

Anyone affiliated with the university as faculty, staff or student and wishes to park a vehicle in a university parking lot at any time of day or night, including after 4:00 p.m. weekdays, on weekends and during academic breaks, must register that vehicle with the Transportation and Parking Services office. Alumni and visitors coming to WFU more than once need to register their vehicle. For registration purposes, students, faculty, staff and alumni are defined as:

**Student** – Anyone enrolled in any class or program at Wake Forest University, including study-abroad programs. Unless formally withdrawn or graduated from the university, students are considered an active student.

**Faculty** – Assigned teaching responsibilities at Wake Forest University (Does not include students who are teaching assistants).



Staff – Non-faculty Wake Forest employee contracted to work on campus.

Alumni – Graduated from WFU and is not enrolled in a graduate program

Parking permits are not transferable from vehicle to vehicle or person to person. A vehicle is not considered registered until permits have been ordered, picked up and placed on the vehicle, as instructed on the permits.

A person may be asked to relinquish a permit due to a change in the permit holder's role at WFU or due to misuse of the permit.

## Parking Options

- First-year students are required to register their vehicle and park off campus in Lot Z5 in the designated area.
- Sophomore students are required to register their vehicle and park off campus in Lot Z2, which is located on the north side of Polo Rd. Parking in the sophomore parking lot (Z2) is limited. When lot Z2 is sold out, permits for Lot Z5 will be the only permits available to sophomores. The Z5 permit is not available online. A waitlist will be available when/if Z2 permits sell out. If Parking Services determines space is available at a later date, the waitlist will be honored. Students are encouraged to order the Z5 permit, even if on the waitlist, since there is no guarantee the waitlist will be honored.
- Junior and senior resident students are required to register their vehicle.
- Commuting upper-class students are required to register their vehicle and have the option to park on campus (on-campus commuter permits are limited and sold on a first-come first-serve basis), off campus (Winston-Salem First and the designated lot in Reynolda Village). Commuting upper-class students may also purchase an evening permit. A waitlist will be available, if/when on-campus or Winston Salem First/Reynolda Village commuter permits sell out. If Parking Services determines space is available in either of these areas at a later time, the waitlist will be honored. Students are encouraged to register for a permit, even if on the waitlist. There is no guarantee the waitlist will be honored.
- The evening parking permit is available to those who ride the shuttle to campus from apartment complexes or students who otherwise reside in off-campus housing and walk or bike to campus between 8:00 a.m. and 4:00 p.m., Monday-Friday. The permits must be placed on the vehicle to be considered registered to park on campus after 4:00 p.m. on weekdays and on weekends.

Fees for parking options can be found online (<https://parking.wfu.edu/parking-info/student-parking-information/>) during the vehicle registration process.

## Online Registration and Permit Distribution

All permits can be ordered online (<https://wfuparking.t2hosted.com/cmn/>). WFU IDs are required to pick up permits, if not delivered to a campus P.O. Box.

### First Year Students Permit Distribution Information

- Permits ordered on or before August 6, 2021:
  - **Pickup Date:** Permits will be included in your packet from RL&H on move-in day
- Permits ordered after August 6, 2021:

- **Pickup Date:** August 16 - August 20
- **Pickup Time:** 10:00 a.m. – 2:00 p.m.
- **Pickup Location:** First Assembly Christian School (3730 University Parkway) located on the north side of the church
- Your Wake Forest ID is required to pick up your permit.
- Permits ordered after August 6, 2021 OR you did not pick up permits on the above dates:
  - **Pickup Date:** Monday, August 23, 2021 and thereafter
  - **Pickup Time:** Mon. – Thurs. 8:30 a.m. – 4:30 p.m. and Friday 8:30 a.m. – 3:00 p.m.
  - **Pickup Location:** Transportation and Parking Services will communicate to students with a registered vehicle via email on how to pick-up permits.
  - Your Wake Forest ID is required to pick up your permit.
- **First-year students Permits Will Not Be Mailed to a Campus P.O. Box.**

### Resident Upper-class Students Permit Distribution Information

- Permits ordered on or before August 13, 2021:
  - Permits will be available in your Campus P.O. Box.
  - If you met the deadline and your permit is not in your Campus P.O. Box, inquire with Mail Services regarding your P.O. Box.
  - **Permits will not be mailed to a Campus P.O. Box if you did not register online by August 13.**
- Permits ordered after August 13, 2021:
  - **Pickup Date:** August 16 - August 20
  - **Pickup Time:** 10:00 a.m. – 2:00 p.m.
  - **Pickup Location:** First Assembly Christian School (3730 University Parkway) located on the north side of the church
  - Your Wake Forest ID is required to pick up your permit.
- Permits ordered after August 13, 2021 OR you did not pick up permits on the above dates:
  - **Pickup Date:** Monday, August 23, 2021 and thereafter
  - **Pickup Time:** Monday through Thursday 8:30 a.m. – 4:30 p.m. and Friday 8:30 a.m. – 3:00 p.m.
  - **Pickup Location:** Transportation and Parking Services will communicate to students with a registered vehicle via email on how to pick-up permits.
  - Your Wake Forest ID is required to pick up your permit.

### Undergraduate Commuter, Arts and Sciences Graduate Student or Divinity Student

- Permits ordered on or before August 15, 2021:
  - **Pickup Date:** August 16 - August 20
  - **Pickup Time:** Between 10:00 a.m. and 2:00 p.m.
  - **Pickup Location:** First Assembly Christian School (3730 University Parkway) located on the north side of the church
  - Your Wake Forest ID is required to pick up your permit.
- Permits ordered after August 15, 2021 OR you did not pick up permits on the above dates:
  - **Pickup Date:** Monday, August 23, 2021 and thereafter
  - **Pickup Time:** Monday through Thursday 8:30 a.m. – 4:30 p.m. and Friday 8:30 a.m. – 3:00 p.m.
  - **Pickup Location:** Transportation and Parking Services will communicate to students with a registered vehicle via email on how to pick-up permits.
  - Your Wake Forest ID is required to pick up your permit.

Fines are assessed for violating parking regulations and range from \$25 to \$250. Visitors are subject to all parking rules and regulations (<https://wfuparking.t2hosted.com/cmn/>). Students are responsible for their visitors. Students will be held financially responsible for citation fines issued to vehicles driven by family members or by friends who use a Wake Forest student's vehicle. Visitors who plan to park on campus for more than one day require a visitor parking pass. Visitor parking passes can be obtained from the Transportation and Parking Services office.

The Transportation and Parking Services office is located in Alumni Hall, Suite 138. Office hours are 8:30 a.m. to 4:30 p.m., Monday through Thursday and 8:30 a.m. and 3:00 p.m. on Friday.

For more information call 336-758-PARK or email ([parking@wfu.edu](mailto:parking@wfu.edu)).

## Alternative Transportation

Wake Forest Transportation and Parking Services adopted an app that it encourages all shuttle riders to download and begin using immediately. The app, The TransLoc Rider, is designed to make the shuttle service more convenient for all riders, including those who take advantage of the OnCall service.

### Deacon's Downtown Shuttle

The downtown shuttle provides evening service beginning at 9:30 p.m. on Thursday, Friday and Saturday. Shuttles go to various restaurants and venues. The last downtown pick-up is between 2:30 and 2:45 a.m.

### Bicycle

To register your bicycle, go here (<http://parking.wfu.edu/alternativemodes-of-transportation/bicycle-registration/>).

### ZimRide

ZimRide's electronic ride-sharing board helps Wake Forest students and coworkers connect with others who are traveling to the same destination or just in the same direction. Rides are matched based on the criteria set by the individuals offering and seeking ride-share partners. Go here (<http://www.zimride.com/wfu/>) to find a carpool partner today.

### Zipcar

Wake Forest offers a car-sharing program as an alternative to bringing your own car to campus. Zipcars are an affordable option that are available by the hour or by the day. Cars are parked on campus near the first-year residence halls and between Kitchin and Poteat Halls.

## Student Health and Wellbeing

- Campus Recreation
- CARE Team
- Chaplain's Office and Religious Life
- Learning Assistance Center and Disability Services
- Office of Wellbeing
- Student Health
- University Counseling Center

## Campus Recreation

### Campus Recreation

The Office of Campus Recreation seeks to enrich the quality of life for students, faculty, and staff by providing a broad program of sports, outdoor, and fitness activities for men and women of all ability levels. Such programs include intramural sports, club sports, Outdoor Pursuits,

open recreation, group fitness, and personal training. Campus Recreation is also responsible for managing the Miller Fitness Center and all of the activities within Reynolds Gymnasium. Campus Recreation provides a healthy outlet for every student, and a convenient option for every staff and faculty member in a safe place where the whole person is central each and every day. In support of the gym and the University's extensive wellbeing center facilities, the University is introducing wellness center membership fees for some community members starting September 1. The wellness fee for full-time, Reynolda campus students will be \$150 per semester. Graduate students may opt to have the fee waived online through the Wake Information System (WIN). Graduate students who elect to opt out of the wellness fee will not have access to campus wellness, recreation and fitness facilities, equipment and related programs, including intramural sports and club sports.

The spouses and live-in partners of Wake Forest University students who have a wellness membership may purchase their own wellness center membership through Campus Recreation.

The Miller Fitness Center houses Campus Recreation's one large group fitness studio. The fitness studio is located on the 4th floor. The Miller Center has two gender-specific locker rooms, each has 12 day-use only lockers and one shower available.

Reynolds Gymnasium is the home of Campus Recreation as well as the Office of Wellbeing, Student Health Service, and the Varsity Athletics Gym. The newly renovated state of the art facility includes the following: Welcome Lobby Desk, Living Room lounge space, Indoor Swimming Pool and Whirlpool, Classrooms, 2 Multipurpose Activity Courts (MAC) with dasher boards and goals, Bouldering and Climbing Wall, 5 Cardio and Strength Training Fitness Spaces, and Locker Rooms.

The Sutton Center is an expansion of Reynolds Gymnasium. Opened in January, 2016 this expansion includes: two full sized gymnasiums with state of the art sound systems, Outdoor Pursuits retail and rental center, Two connector atriums with an abundance of natural light, digital signage, and lounge areas for student interactions. The gymnasiums are lined to accommodate basketball, volleyball and badminton but can be transformed to host receptions, unique competitions and other university & community events.

Intramural sports are competitions between students, faculty, and staff. With undergraduates and graduate students participating every year, competitive games of all levels are offered.

## CARE Team

### CARE Team

The Campus Assessment, Response and Evaluation (CARE) Team serves the Wake Forest University community by evaluating and responding to disruptive, troubling, or threatening behaviors brought to the attention of the Team. As a part of this work the Team also seeks to help identify members of the Wake Forest community who are in need of support, guidance, or other intervention and to refer them to appropriate campus and community resources. The CARE Team is empowered by the University President to make decisions and take appropriate action in fulfillment of its mission. The Vice President for Campus Life provides administrative oversight for the Team. The CARE Team is composed of representatives from throughout the University who have specific expertise and professional training in the assessment of, and intervention with, individuals who may present a threat to themselves and/or the University community. The CARE Team serves to follow up with persons

who display behaviors of concern and connect them with supportive resources as warranted. The CARE Team also educates the campus community about how to identify and promptly report concerning behaviors.

The CARE Team is not tasked with responding to emergencies. If this is an emergency and you are in need of immediate assistance or consultation, contact WFU Police at 336.758.5911 or 911 from a campus phone.

#### **CARE Team Contact Information:**

Email ([CARE@wfu.edu](mailto:CARE@wfu.edu))

Website (<http://careteam.wfu.edu>)

CARE Team Case Manager – 336.758.2464

## **Chaplain's Office and Religious Life**

The Office of the Chaplain and Religious Life seeks to support a diversity of beliefs through the multifaith character of the chaplaincy and its relationship to some 16 religious life affiliates. The office acknowledges the importance of faith, both in our individual and collective lives, and strives to provide opportunities for members of the Wake Forest community to express and explore their faith in a supportive community. The core work of chaplaincy is rooted in the care of the whole person – body, soul and spirit. As such, a key aspect of our office is to make available pastoral care and advisement for any member of the Wake Forest community – students, staff, faculty, and alumni. This can happen through individual counsel, programming on critical spiritual themes, intervention in medical emergencies, mortality concerns and presiding at key life rituals.

The University Chaplains and Campus Ministers are available for pastoral counseling on a variety of issues. If ongoing counseling is deemed appropriate, referrals to clinically trained therapists in the University Counseling Center may be made.

Chaplains and Campus Ministers also offer spiritual direction or guidance to members of the Wake Forest community seeking to discern God's call in the midst of everyday life and assistance to persons wishing to grow closer to God through disciplines such as prayer, spiritual reading, and meditation.

Location: Suite 22 Reynolda Hall

Phone: 336.758.5210

## **Learning Assistance Center and Disability Services**

**Wake Forest is an equal access institution that admits qualified applicants without regard to disability.** When a student with a disability is admitted, the University seeks to accommodate those needs that are determined to be reasonable and that do not compromise the integrity of the curriculum.

The Learning Assistance Center (LAC) provides study skills training and counseling. Students can learn to read critically, take notes effectively, manage their time, improve their motivation, increase their reading speed, and prepare for tests. Assistance is provided through counseling and individual and group tutoring. Students with a wide range of learning and other documented disabilities may also receive academic support, training, and advocacy through the Learning Assistance Center. Our hours of operation are Monday-Friday, 8:30am-5:00pm (excluding Holidays).

Students with a disability who require accommodations, should submit a request and documentation to one of the individuals listed below, depending on the nature of the accommodation requested. The information a student provides will be treated confidentially and will be shared with other administrators or faculty members only to the extent necessary to reach decisions and take actions on requests for accommodations.

Please make an appointment at the Learning Assistance Center once you arrive on campus.

Additional information on disability services is available on the Learning Assistance Center website (<http://lac.wfu.edu/>).

If an accommodation is granted, students are responsible for obtaining copies of the accommodation letter from the Learning Assistance Center and for delivering a copy of the letter to their professors at the beginning of each semester.

#### **Regarding medical or mobility issues:**

Cecil D. Price, M.D.

Student Health Service

P.O. Box 7386

Winston-Salem, NC 27109

Email ([price@wfu.edu](mailto:price@wfu.edu))

Phone: 336.758.5218

#### **Regarding learning issues:**

Michael Shuman, Ph.D., Director

Learning Assistance Center & Disability Services

P.O. Box 7283

Winston-Salem, NC 27109

Email ([shumanmp@wfu.edu](mailto:shumanmp@wfu.edu))

Phone: 336.758.5929

## **Office of Wellbeing**

### **Office of Wellbeing**

**Thrive is a campus-wide initiative – owned by every member of the Wake Forest University community.** The Office of Wellbeing leads the campus in making wellbeing a part of every experience in the lives of our students, faculty, and staff. Wellbeing is about much more than physical health. It includes the eight dimensions of wellbeing - emotional, environmental, financial, intellectual, occupational, physical, social, and spiritual.

Wake Forest created Thrive to give students, faculty, and staff, the skills, knowledge, and perspective to maintain a healthy, balanced life. Programs include monthly focus on specific dimensions, bystander interventions, dimension champion awards, Gold Apron cooking, WFU Certified Peer Education Program, mindfulness resources, Signs of Stress, and many other initiatives.

## **Student Health**

### **Student Health Service**

The Student Health Service's goal is to promote and advance the health and wellbeing for all students. A physician-directed medical staff offers primary care services, urgent care, illness care, physical examinations, counseling, limited psychiatric care, allergy injections, immunizations, radiology, gynecological services, pharmacy, laboratory, sports medicine

clinic, referral to specialists, and medical information and vaccinations related to travel to international destinations.

## Student Health Portal

Students now can make most appointments online through the Student Health Portal. The best way to access this portal is through the SHS website (<http://shs.wfu.edu>). This is a secure way to make appointments, view published labs, print off a copy of your immunization history on file, print receipts and securely communicate with our clinic. SHS's primary way to communicate with students will be through their student email account. We send out appointment reminders 24 hours before your appointment and send messages for you to log into the Student Health Portal to view secure messages from the clinic. Students are encouraged to make appointments to be seen at the clinic. If you choose to walk in without an appointment, you will be seen by one of our staff nurses. The nurse will evaluate you and try to get you in with a medical provider if necessary and if one is available. We cannot guarantee the availability of a medical provider if you choose to come to the clinic without an appointment.

## Medical Charges

Most services at SHS are covered by the Student Health Fee. In addition, there are discounted "fee-for-service" charges for medications, laboratory tests, observation care, procedures, and some supplies. Payment can be made by paying cash, check, Deacon One Card, Student Blue Insurance, or the charge can be transferred to the student's account in Office of Financial and Accounting Services. Each student is given a copy of the medical charges incurred on the date of service which can be used for insurance filing. Student Health Service does not participate nor do we file insurance claims on behalf of the patient.

## Radiology

New to Student Health. As a partnership with Wake Forest Baptist Medical Center, Student Health now offers on site X-rays. With this partnership Wake Forest Baptist will be able to bill your medical insurance for services. All billing will be handled by Wake Forest Baptist and the remaining portion after your insurance processes the claim will be your responsibility.

## Confidentiality

Student medical records are confidential. Medical records and information contained in the records may be shared with therapists and physicians who are involved in the student's care, and otherwise will not be released without the student's permission except as allowed by law. Students who wish to have their medical records or information released to other parties should complete a release of information form at the time of each office visit or service.

## Class Excuses

The responsibility for excusing students from class rests with the faculty. Consequently the Student Health Service does not issue "excuses" for students. Students who are evaluated at the Health Service are encouraged to discuss their situations with their professors. A receipt documenting visits is available to students at checkout. Information concerning hospitalization and prolonged illnesses is sent, with the student's permission, to the appropriate Dean.

## Student Insurance Program

Health insurance is required as a condition of enrollment for all degree-seeking\* students at Wake Forest University. Students who demonstrate

comparable coverage to WFU's health insurance plan and meet our criteria may waive the coverage provided by WFU. Information about the policy plan, process instructions and full information regarding eligibility can be found online (<http://sip.studentlife.wfu.edu/>).

## Inclement Weather

When the University is closed due to inclement weather, the Student Health Service may have limited staff and may be able to provide care only for injuries and urgent illnesses. Appointments may be rescheduled.

## Retention of Medical Records

Student medical records are retained for 10 years after the last treatment, after which time they are destroyed. Immunization records are kept longer.

\* Certain part-time students are not eligible.

## Student Health Information and Immunization Form

All new students are required to complete this form (<http://shs.wfu.edu/forms/>). It must be received by the Student Health Service before June 30 for new students entering fall semester or before January 1 for new students entering spring semester. This form (<http://shs.wfu.edu/forms/>) requires information in regard to documentation of immunizations required by the University and the State of North Carolina.

## Immunization Policy

**North Carolina State Law** (G.S. 130A-152) requires documentation of certain immunizations for students attending a North Carolina college or university. Wake Forest University adheres to the State Law, also requiring WFU students to provide documentation of immunizations. Students must submit certification of these immunizations **prior to registration**. Documentation should be on or attached to *the completed* "Health Information & Immunization form (<https://bulletin.wfu.edu/university/university-services/health-wellbeing/student-health/shs.wfu.edu/forms/>)" *provided by the Student Health Service* in order to assure correct identification of the student. Acceptable documentation is a statement signed by the appropriate official(s) having custody of the records of immunization, such as a physician, county health department director. The State statute applies to all students except those registered in off-campus courses only, attending night or weekend classes, or taking a course load of four credit hours or less.

The American College Health Association recommendations and **North Carolina State law** require certification in accordance with the following.

### Required:

1. **Tetanus/Diphtheria/Pertussis**. Students must document **three doses** of a combined tetanus diphtheria vaccine (DTaP, Td, or Tdap) of which one must be a Tdap after May 2005.
2. **Rubeola (Measles)**. Students must document **two doses** of live virus measles vaccine given at least 30 days apart, on or after their first birthday unless
  - a. they were born prior to January 1, 1957 or
  - b. they have documentation of a titer indicating they are immune.
3. **Rubella (German measles)**. Students must document that they have had one dose of live virus vaccine on or after their first birthday unless
  - a. they have documentation of a titer indicating they are immune, or
  - b. they will be 50 years old before they enroll. History of the disease is **not** acceptable.



4. **Mumps.** Students must document **two doses** of live virus mumps vaccine given at least 30 days apart, on or after their first birthday unless
  - a. they were born before January 1, 1957 or
  - b. they have documentation of a titer indicating they are immune. History of the disease is **not** acceptable.
5. **Polio.** Students must document that they have had a total of three doses of trivalent polio vaccine if they are less than 18 years of age when they enroll. One of these doses must be after the age of four years.
6. **Hepatitis B.** Students are required to document three doses of Hepatitis B vaccine if born on or after July 1, 1994. The first and second doses must be at least 28 days apart. The third dose must be at least 56 days (or eight weeks) after the second dose and at least 16 weeks after the first dose; the third dose cannot be given any earlier than 24 weeks of age. Regardless of age Hepatitis B vaccine is recommended for all students.
7. **Tuberculosis test (PPD or TB blood test).** Required within 6 months of the University registration date for
  - a. students who may have been exposed to tuberculosis or have signs or symptoms of active tuberculosis disease or
  - b. students who have lived more than 30 days in a country other than those designated as low risk for tuberculosis by Centers for Disease Control (CDC). If the student's tuberculosis test is positive, chest x-ray results and record of treatment must be documented.
8. **Meningococcal.** CDC recommends routine vaccination with quadrivalent meningococcal conjugate vaccine at age 11 or 12 years, with a booster dose at age 16 years. For adolescents who receive their first dose at age 13-15 years, a one-time booster dose should be administered after age 16 years. Persons who receive their first dose at age 16 years do not need a booster dose.

#### Recommended:

1. **Varicella.** The two-dose series is recommended. Discuss with your health care provider.
2. **Human Papillomavirus Vaccine (HPV/Gardasil).** A three-dose series.
3. **Pneumovax.** A vaccine which prevents illness from a strain of bacteria that can cause pneumonia and death. This vaccine is recommended for individuals 19 and older who have asthma or smoke. It is also recommended for those ages 2-64 with any of the following conditions: diabetes, sickle cell disease, lung disease, cochlear implants, CSF leaks, or conditions or medication which lower resistance to infection.
4. **Hepatitis A.** A two-dose series.

**Immunizations required under North Carolina law must be documented within 30 days following registration.** After that time, students with incomplete documentation of immunizations will not be permitted to attend classes. Please note that some series require several months for completion.

## University Counseling Center

### University Counseling Center

The University Counseling Center, located in 118 Reynolda Hall (Reynolda Campus), provides short-term, time limited counseling and consultation to currently enrolled Reynolda Campus students. All services are confidential, and no fees are charged to students. The Center offers

counseling for a variety of concerns including depression, anxiety, personal adjustment, disordered eating, managing stress, sexuality, and relationship issues. The Center is open Monday-Friday from 8:30 a.m. to 5 p.m. (excluding holidays). For more information or to schedule an appointment, call the center at 336.758.5273. More information is also available online (<http://counselingcenter.wfu.edu>). For life-threatening emergencies call 911 from a campus phone or 336.758.5911.

## University Police and Safety Services

### University Police

To report an emergency dial 911 (on-campus phone) or 336.758.5911.

The Student's Right-to-Know and Campus Security Act requires institutions of higher learning to issue an annual report describing campus security procedures, facilities, policies, crime prevention programs, statistics, and other information. The purpose of the report is to give individuals in the University community the information they need for their personal safety and security while on campus. A copy of this annual report is available online at [www.wfu.edu/police](http://www.wfu.edu/police) (<http://www.wfu.edu/police/>). For further information regarding this policy, please call 336.758.3567.

### Safety Services

If a safety escort is required after 3 a.m., one can be provided by calling University Police at 336.758.5911, calling 911 from a campus telephone, or utilizing one of the "call-box" telephones found around campus. The safety escort service is provided by either a police officer in a patrol car or a walking security officer. The timeliness of a safety escort's arrival is dependent on the availability of personnel and the number of high-priority calls to which they may already be committed.

Persons requiring ADA assistance or other special transportation needs that prohibit them from using one of the regular shuttle stops should call University Police at 336.758.5911 (ext. 911 on campus) for alternate arrangements.

Wake Forest University provides a safety app, powered by LiveSafe that can be downloaded to your phone or tablet. LiveSafe is a free personal mobile application for Wake Forest University students, staff, and faculty to engage in a two-way conversation with WFU police. With LiveSafe, you can use your cell phone as a personal security device that allows direct access to police, 911 emergency services, emergency location sharing, information sharing with quick tips, and a peer-to-peer SafeWalk tool. Registration with a Wake Forest University email address is encouraged.

#### Features:

**Summon Help** – Trigger 911 or the WFU Police Department with the press of a button. Based on your cell phone signal and if your location services is enabled a GPS locator is activated during your call.

**SafeWalk** (a peer-to-peer tool) – Invite friends and family to temporarily follow your location on a real-time map. They will see your approximate location as you walk to your destination and will know when you get there safely.

**Share information** – Submit tips or reports about campus safety concerns and live chat with campus safety officials. You can attach a picture, video, or audio and even send it anonymously if you choose.



**Access Campus Resources and Emergency Information** – Access campus resources, emergency information, and important phone numbers.

# GOVERNING AND ADVISORY BOARDS

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### 2019-2023

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## Wake Forest College Board of Visitors

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Keith W. Vaughan, *Winston Salem, NC*  
Lydia H. Vaughan, *Winston Salem, NC*

*Terms Expiring June 30, 2022*

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*Terms Expiring June 30, 2023*

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 Lori A. Martin, *Charlotte, NC*  
 William A. Martin, *Charlotte, NC*  
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 Jeffrey M. Saltzman, *Nashville, TN*  
 Christina M. Thornton, *Burlington, CT*  
 Jeffrey S. Torosian, *Lake Forest, IL*  
 Mary M. Wallace, *Houston, TX*

*Terms Expiring June 30, 2024*

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 Roland H. Bauer, *Silver Lake, OH*  
 Beth Becton, *Augusta, GA*  
 Andrew Blaisdell, *Atlanta, GA*  
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 Amy Dunham, *Indianapolis, IN*  
 Kevin Felder, *Columbia, SC*  
 Donna B. Gaut, *Houston, TX*  
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 Rhoda Juckett, *Charlotte, NC*  
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Tisha S. Turner, *Raleigh, NC*  
 Kara Van Duzee, *Dallas, TX*

## Wake Forest University School of Business Board of Visitors

**Chairperson:** Marybeth Torbert Hays, *Fayetteville, AR*

*Terms Expiring June 30, 2021*

John A. Allison, IV, *Lewisville, NC*  
 Steven C. Anderson, *Arlington, VA*  
 Margaret G. Beasley, *Charlotte, NC*  
 Susan M. Benz, *New York, NY*  
 Mary E.W. Bourne, *Charlotte, NC*  
 P. James Brady, III, *Houston, TX*  
 Peter C. Brockway, *Boca Raton, FL*  
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 R. Doyle Parrish, *Raleigh, NC*  
 Mitchell W. Perry, *Durham, NC*  
 Adam E. Phillips, *Weston, CT*  
 Billy D. Prim, *Winston-Salem, NC*  
 Scott M. Purviance, *Charlotte, NC*  
 Jorge Rodriguez, *Switzerland*  
 José R. Rodriguez, *Greensboro, NC*  
 Michael E. Rogers, *Kiawah Island, SC*  
 Jan A. Schipper, *Greenville, SC*  
 Matthew J. Shattock, *Lake Forest, IL*  
 Patricia A. Shields, *Montclair, NJ*  
 William C. Sinclair, *New York, NY*  
 Gerald F. Smith, Jr., *Winchester, VA*  
 Ralph M. Snow, III, *Charlotte, NC*  
 Theodor C. Swimmer, *Charlotte, NC*  
 A. Coleman Team, *Winston Salem, NC*  
 Anthony W. Thomas, *Little Rock, AR*  
 C. Jeffery Triplette, *Oxford, MS*

Howard Upchurch, *Winston-Salem, NC*  
David I. Wahrhaftig, *New York, NY*  
Gregory J. Wessling, *Cornelius, NC*  
Eric C. Wiseman, *Greensboro, NC*

## Wake Forest University School of Divinity Board of Visitors

**Chairperson:** Piper J. Chanel, *Winston-Salem, NC*

*Terms Expiring June 30, 2021*

David W. Ammons, *Raleigh, NC*  
Shelmer D. Blackburn Jr., *Purlear, NC*  
Mark W. Boyce, *Matthews, NC*  
Meg A. Finnerud, *Southport, CT*  
J. Lynn Killian, *Hendersonville, NC*  
Stephany W. Sherman, *Atlanta, GA*  
M. Gray Styers Jr., *Raleigh, NC*  
Forrest H. Truitt II, *Winston-Salem, NC*  
Dee Dee Turlington, *Palm Coast, FL*  
Garrett L. Vickrey, *San Antonio, TX*  
Mary Lynn Wigodsky, *Winston-Salem, NC*  
George Williamson Jr., *Katonah, NY*

*Terms Expiring June 30, 2022*

Darryl W. Aaron, *Greensboro, NC*  
Cassandra M. Baker, *Macon, NC*  
Jerry H. Baker, *Macon, NC*  
Sara O. Bissette, *Asheville, NC*  
Piper J. Chanel, *Winston-Salem, NC*  
Sue L. Henderson, *Winston-Salem, NC*  
Brandon C. Jones, *Madison, MS*  
Nathan E. Kirkpatrick, *Durham, NC*  
Jared G. Lilly, *New York, NY*  
Gloria H. Martin, *Winston-Salem, NC*  
W. David Shannon, *Winston-Salem, NC*  
R. Craig Siler, *Greensboro, NC*  
Drew W. Snorton III, *Snellville, GA*  
Rebecca L. Wiggs, *Jackson, MS*

*Term Expiring June 30, 2023*

Ann W. Brinson, *High Point, NC*  
M. Evelyn Curtis, *Marietta, GA*  
M. Beth Hopkins, *Advance, NC*  
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Obi Okwara, *Atlanta, GA*  
Amy Palmer, *Austin, TX*  
Liz O. Seely, *Columbus, OH*

# THE ADMINISTRATION

*Administration reflects leadership as of July 1, 2018. Year following name indicates year of hire.*

## Administration—Reynolda Cabinet

Susan R. Wente (2021)

President

BS, University of Iowa; PhD, University of California Berkeley

Rogan Kersh (2012)

Provost

BA, Wake Forest University; MA, MPhil, PhD, Yale

Andrew R. Chan (2009)

Vice President, Innovation and Career Development

BA, MBA, Stanford

John Currie

Director of Athletics

BA, Wake Forest University; MS Tennessee

James J. Dunn (2009)

Special Assistant to the President & CEO, Verger Capital Management, LLC

BS, Villanova

Julie A. Freischlag, MD (2018)

CEO, Wake Forest Baptist Medical Center, Dean of Wake Forest School of Medicine and Chief Academic Officer of Atrium Health Enterprise

BS, University of Illinois; MD, Rush University

Michele K. Gillespie (1999)

Dean of Wake Forest College

BA, Rice; MA, PhD, Princeton University

Charles Iavocou (2001)

Dean, School of Professional Student and Vice Provost Charlotte

BS, University of Vermont; PhD, University of British Columbia

Todd Johnson (2012)

Vice President and Executive Director, Wake Forest University Charlotte

BA, UNC; MBA, Wake Forest University

Eric Maguire (2019)

Vice President for Enrollment

BA, Muhlenberg College; MA, Indiana University

B. Hofler Milam (2010)

Executive Vice President and CFO

BS, MBA, Wake Forest University

James Reid Morgan (1979)

Senior Vice President and General Counsel

BA, JD, Wake Forest University

Mark A. Petersen (2008)

Vice President for University Advancement

BA, Brandeis; MA, University of Southern California

Mary E. Pugel (2005)

Chief of Staff, President's Office

BA, University of Washington

Michelle Roehm (1997)

Interim Dean, School of Business

BS, MS, University of Illinois at Urbana-Champaign; PhD Northwestern University

Penny Rue (2013)

Vice President for Campus Life

AB, Duke University; MA, The Ohio State University; PhD, Maryland

José Villalba (2011)

Vice President for Diversity and Inclusion and Chief Diversity Officer

BS, MEd, EdS, PhD, Florida

Jonathan L. Walton (2020)

Dean, Divinity School

BA, Morehouse College; MDiv and PhD, Princeton Theological Seminary

## College

Michele K. Gillespie (1999)

Dean of Wake Forest College

BA, Rice; MA, PhD, Princeton

Rebecca W. Alexander (2000)

Director of Academic Planning for Wake Downtown

BS, Delaware University; PhD, University of Pennsylvania

Karen M. Bennett (1985)

Assistant Dean for Academic Advising

BS, Winston-Salem State University; MA, Wake Forest University

Jane H. Caldwell (1999)

Senior Associate Athletic Director; Assistant to the Dean of the College, Student Athlete Academic Services

BS, UNC-Greensboro; MS, Wake Forest University

Anne E. Hardcastle (2002)

Associate Dean for Academic Planning

BA, Texas A&M University; MA, PhD, University of Virginia

T. Nathaniel French (1995)

Director, Magnolia Scholars

BA, Wake Forest University; MA, PhD, UNC-Chapel Hill

Laura Giovanelli (2014)

Associate Dean for Learning Spaces

BA, UNC-Chapel Hill; MFA, North Carolina State University

Mike Haggas (2010)

Assistant Dean of College Development

BA, Clark University

Eric Ashley Hairston (2019)

Associate Dean for Academic Advising

BA, Wake Forest University; MA, PhD, University of Virginia; JD, UNC-Chapel Hill

Cherise James (2009)

Associate Director of Orientation and Lower Division Programming

BS, University of Florida; MS, Nova Southeastern University; PhD, UNC-Greensboro

Michael Lamb (2016)

Director of the Program for Leadership and Character



BA, Rhodes College; BA, University of Oxford (UK); PhD, Princeton University

Anthony P. Marsh (1996)  
Senior Associate Dean of Faculty  
BPE, MEd, Western Australia; PhD, Arizona State

George E. Matthews Jr. (1979)  
Director, Academics and Instructional Technology  
BS, PhD, UNC-Chapel Hill

Tom Phillips (1982)  
Associate Dean and Director of Wake Forest Scholars and  
Interdisciplinary Humanities  
BA, MA, Wake Forest University; PhD, UNC-Chapel Hill

Seneca Rudd (2011)  
Director of Finance and Administration  
BS, Appalachian State University

Erica Still (2007)  
Associate Dean for Faculty Recruitment, Diversity, and Inclusion  
BA, Temple University; MA, PhD, University of Iowa

Eric Stottlemeyer (2012)  
Associate Dean for the Engaged Liberal Arts  
BA, Ohio State University; MA, San Diego State University; PhD, University of Nevada

David F. Taylor (2005)  
Assistant Dean for Global Study Away Programs, Center for Global  
Programs and Studies  
BA Princeton; MALS, Wake Forest University

Kimberly Wieters (2007)  
Assistant Dean for Finance and Administration  
BS, College of Charleston

## Provost

Rogan Kersh (2012)  
Provost and Professor of Politics and International Affairs  
BA, Wake Forest University; MA, MPhil, PhD, Yale

J. Kline Harrison (1990)  
Vice Provost for Global Affairs and Kemper Professor of Business  
BS, Virginia; PhD, Maryland

Beth Hoagland (2004)  
Assistant Provost for Budget and Finance  
BA, UNC-Charlotte

Kenneth Gilson (2020)  
Assistant Provost for Academic Administration and University Registrar  
BA, Wheaton College (IL), MS, UIC John Marshall Law School, EdD,  
University of Southern California

Keith D. Bonin (1992)  
Associate Provost for Research and Scholarly Inquiry and Professor of  
Physics  
BS, Loyola University; PhD, University of Maryland

Kami Chavis (2006)  
Vice Provost for Academic Initiatives and Professor of Law  
BA, UNC-Chapel Hill; JD, Harvard

Christina T. Soriano (2006)  
Associate Provost for Arts and Interdisciplinary Initiatives, Director of  
Dance and Associate Professor  
BA, Trinity College; MFA, Smith College

José Villalba (2011)  
Vice President for Diversity and Inclusion and Chief Diversity Officer  
BS, MEd, EdS, PhD, Florida

Philip G. Handwerk (2013)  
Assistant Provost of Institutional Research  
BA, Wake Forest University; MS, NC State; PhD, Pennsylvania

Martha Blevins Allman (1982)  
Senior Associate Provost and Dean, University Collaborations  
BA, MBA, Wake Forest University

## Graduate School

Dwayne Godwin (1997)  
Dean, Bowman Gray Campus  
BA, University of West Florida; PhD, University of Alabama (Birmingham)

Bradley T. Jones (1989)  
Dean, Reynolda Campus  
BS, Wake Forest University; PhD, Florida

Sandy Dickson (2009)  
Senior Associate Dean for Academic Initiatives  
BSEd, Mississippi College, MA, University of West Florida; PhD, Florida  
State University

Jennifer Rogers (2012)  
Associate Dean for Students, Reynolda Campus  
BFA, BA, University of North Carolina at Greensboro; MA, Wake Forest  
University; PhD, Syracuse University

Ron Von Burg (2012)  
Associate Dean for Academic Initiative, Reynolda Campus  
BS, BA, Arizona State University; MA, PhD, University of Pittsburgh

## School of Business

Michelle L. Roehm (1997)  
Interim Dean  
BS, MS, University of Illinois; PhD, Northwestern

Kenneth C. Herbst (2007)  
Associate Dean of the Undergraduate Program  
BA, Wake Forest University; MA, PhD, University of North Carolina at  
Chapel Hill

Mark Evans (2014)  
Associate Dean of Accountancy  
BBA, MBA, Radford University; PhD, Duke

Jeff Camm (2015)  
Associate Dean, Business Analytics Program  
BS, Xavier; PhD, Clemson

Norma R. Montague (2010)  
Associate Dean of the Master of Science in Management Program  
BA, MA, NC State; PhD, University of South Florida

Timothy R. Janke (2007)  
Associate Dean of MBA Programs

BS, University of North Carolina at Chapel Hill; LLM, JD, Oglethorpe; MBA, Wake Forest University

Mark Johnson (2017)

Assistant Dean of MBA Programs

BS, Florida State University; MSF, Florida International University; MSFE, PhD, University of New Orleans

Mercy Eyadiel (2011)

Chief Corporate Engagement Officer

BA, Southern Nazarene; MEd, Oklahoma City

Keith Gilmer (2015)

Chief Administrative Officer

BS, Lander University; MBA Vanderbilt University

Sylvia Green (2009)

Chief Marketing Officer

BS, University of Colorado

Matt W. Imboden (2018)

Chief Student Services Officer

BA, MA Wake Forest University

Haresh Gurnani (2015)

Program Director, Mathematical Business

BE, Indian Institute of Technology, New Delhi; MS, PhD, Carnegie Mellon

Bill Marcum (1996)

Program Director, Finance

BA, Furman; MA, UNC-Greensboro; PhD, UNC-Chapel Hill

Bren Varner (2006)

Program Director, Business and Enterprise Management

BS, Wake Forest University; MBA, Virginia

## School of Divinity

Jonathan Lee Walton (2019)

Dean

BA, Morehouse College; MDiv, PhD, Princeton Theological Seminary

Kevin Jung (2007)

Associate Dean of Academic Affairs

BA, Seoul Theological University; MDiv, Princeton Theological Seminary; STM, Yale Divinity School; PhD, University of Chicago

Shonda R. Jones (2011)

Senior Associate Dean for Strategic Initiatives and Integrative Learning

BA, Texas Christian; MDiv, Brite Divinity School; EdD, University of Alabama

Sheila Virgil (2014)

Assistant Dean of Development

BA, St. John's College (Annapolis); MNO, Case Western Reserve University

## School of Law

Jane H. Aiken (2019)

Dean of the School of Law

BA, Holins College; JD, New York University; LL.M, Georgetown

Wendy Parker (2003)

Executive Associate Dean, Academic Affairs

BA, JD, Texas

Cassandra W. Adams (2020)

Dean of Students

BA, Fisk University (TN); MPH, Meharry Medical College; JD, University of Tennessee Knoxville

Richard C. Schneider (1992)

Associate Dean for International Affairs and Professor of Law

BA, Colorado; MA, Yale; JD, New York

Ronald Wright (1988)

Associate Dean of Research

AB, William and Mary; JD, Yale

Christopher Knott (2012)

Associate Dean for Information Services and Technology and Professor of Law

BA, Iowa; MLIS, Indiana; JD, Michigan

Simone Rose (1993)

Associate Dean for Innovation and Entrepreneurship

BS, University of Pennsylvania; JD, University of Maryland

Aurora Edenhart-Pepe (2020)

Chief Administrative Officer

BS, West Chester

## Wake Forest School of Medicine

Julie A. Freischlag (2018)

CEO, Wake Forest Baptist Medical Center, Dean of Wake Forest School of Medicine and Chief Academic Officer of Atrium Health Enterprise

BS, University of Illinois; MD, Rush University

Evelyn (Lynn) Y. Anthony (2017)

Senior Associate Dean of Faculty Affairs

BS, University of North Carolina, Chapel Hill; MD, Duke University School of Medicine

C. Randall Clinch (2011)

Associate Dean for MD Program Academic Affairs (Interim); Associate Dean Faculty Development; Medical Director, Employee Health; and Professor of Family and Community Medicine

BS, College of New Jersey; DO, University of Medicine and Dentistry of New Jersey - School of Osteopathic Medicine; MS, Wake Forest University

Michael T. Fitch (2018)

Associate Dean for Faculty Affairs, Professor and Vice Chair for Academic Affairs, Emergency Medicine

BS, College of William and Mary; PhD, Case Western Reserve School of Medicine; MD, Case Western Reserve School of Medicine

Beth Gianopoulos (2018)

Associate Dean of Faculty Relations and Retention, Senior Counsel, Wake Forest Baptist Medical Center Legal Department, and Assistant Professor of Surgery

JD, Wake Forest University

Gregory L. Burke, MD, MSc (2017)

Senior Associate Dean for Research and Professor of Public Health Sciences and Chief Science Officer

MD, MSc, University of Iowa

Stephen Kritchevsky (2012)

Associate Dean of Research Development and Director of the Sticht Center on Aging

MSPH, PhD, University of North Carolina, Chapel Hill

Donald A. McClain (2016)  
Associate Dean for Clinical and Translational Science  
MD, PhD, The Rockefeller University, Cornell Medical College

Lynne Wagenknecht (2013)  
Associate Dean for Interdisciplinary Research  
BS, Lenoir-Rhyne, Dr PH, Alabama-Birmingham

Terry L. Hales, Jr. (2014)  
Senior Vice President, Academic Administration and Operations &  
Executive Vice Dean  
BSBA, Appalachian State; MBA, Wake Forest University

Christopher O'Byrne, (2016)  
Vice President and Associate Dean of Research Administration and  
Operations  
BA, Stonehill College; MS, Northeastern University

Terri S. Yates (2015)  
Vice President and Associate Dean, Healthcare Education Administration  
BS, MA, Wake Forest University; PhD, University of North Carolina-  
Greensboro

James Hoekstra (2018)  
Senior Vice President and Associate Dean, Clinical and Academic  
Network Development  
MD, University of Michigan Medical School

Michael P. Lischke (2001)  
Associate Dean of Continuing Medical Education and Richard Janeway,  
MD Distinguished Director, Northwest Area Health Education Center  
BA, MPH, Emory; EdD, Temple

Brenda Latham-Sadler (2012)  
Associate Dean of Student Inclusion and Diversity  
BS, Pace; MD, Wake Forest University

Marcia M. Wofford (2013)  
Associate Dean of Student Affairs  
BA, Millsaps College; MD, University of Mississippi Medical Center

Avinash (Avi) Shetty, (2015)  
Associate Dean of Global Health  
MBBS, University of Bombay; MD, University of Bombay

Mitchell Sokolosky (2014)  
Associate Dean of Graduate Medical Education, ACGME Designated  
Institutional Official, Associate Professor, Emergency Medicine  
MD, West Virginia University School of Medicine

Daryl Rosenbaum (2019)  
Associate Dean of Admissions and Student Financial Aid  
BA, University of Michigan; MD, Wake Forest University

Modupeola Akinola (2019)  
Assistant Dean of Admissions and Student Financial Aid  
BS, MB, University of Ibadan Medical School - Nigeria

Marquita Hicks (2019)  
Assistant Dean of Student Inclusion and Diversity  
Ba, Hendrix College; MD, University of Kansas

## Admissions and Financial Aid

Eric Maguire (2019)  
Vice President for Enrollment  
BA, Muhlenberg College; MA, Indiana University

Karen Vargas (2017)  
Dean of Admissions  
BA, Haverford College; MSM Rosemont College

Tamara L. Blocker (1999)  
Sr. Associate Dean of Admissions - Admissions Operations  
BS, Florida State University; MA, University of Central Florida

Dawn E. Calhoun (1999)  
Sr. Associate Dean of Admissions - Admissions Programming  
BA, MA, Wake Forest University

Paul M. Gauthier (2003)  
Associate Dean of Merit-Based Scholarships  
BA, Wake Forest University; MA, St. Louis University

Kevin Pittard (2007)  
Associate Dean of Admissions  
BA, Wake Forest University; MEd, Georgia

Nicole McInteer (2015)  
Associate Dean of Admissions  
BA, Wake Forest University; PhD, Penn State

Adrian Greene (2018)  
Associate Dean of Admissions  
BA, MA, Wake Forest University; PhD, UNC-Chapel Hill

Morgan Wehrkamp (2018)  
Associate Dean of Admissions  
BA, Augustana University; MDiv, Wake Forest University

Susan Faust (2014)  
Assistant Dean of Admissions  
BA, MA, University of Arkansas at Fayetteville

Lowell Tillett (2014)  
Assistant Dean of Admissions  
BA, Wake Forest University; JD, Quinnipiac University

Thomas Ray (2014)  
Assistant Dean of Admissions, Diversity Admissions  
BA, Wake Forest University

Lando Pieroni (2018)  
Coordinator, International Admissions  
BA, Wake Forest University

Matthew Avara (2017)  
Admissions Counselor  
BS, Wake Forest University

Addie Folk (2019)  
Admissions Counselor  
BA, Wake Forest University

Cesar Grisales (2019)  
Admission Counselor  
BA, Wake Forest University

Yong Su An (2019)  
Admission Counselor  
BA, Wake Forest University

Michelle White (2019)  
Admissions Counselor  
BA, Wake Forest University

Christopher R. Franklin (2013)  
Admissions Business/Systems Analyst  
BS, University of Maryland

Terri E. LeGrand (2005)  
Director of Enrollment Compliance & Technology  
BS, Iowa State; JD, Wake Forest University

Thomas P. Benza (2006)  
Director of Financial Aid  
BA, BS, Appalachian State; MA, Wake Forest University

Milton W. King (1992)  
Associate Director of Financial Aid  
BA, MBA, Wake Forest University

Roberta L. Powell (2007)  
Assistant Director of Financial Aid  
BA, Asbury College; MS, Kentucky

Lauren Trethaway (2013)  
Assistant Director of Financial Aid & Student Employment Coordinator  
BS, North Carolina State University

Elizabeth G. Sandy (2013)  
Coordinator for Study Abroad, External Scholarships & State Grants  
BS, MA, Rider

Lisa A. Myers (1996)  
Financial Aid Counselor

Asia Parker (2019)  
Financial Aid Counselor  
BA, Wake Forest University

Marisa Hernandez (2020)  
Financial Aid Counselor  
BA, University of North Carolina at Chapel Hill; MSM Wake Forest University

John Royal (2017)  
Data Coordinator  
BA, Western Carolina University

Rhonda Myrick (2008)  
Reporting Analyst III  
BS, High Point University; MA, Appalachian State University

## Athletics

John Currie (2019)  
Director of Athletics  
BA, Wake Forest University; MS, Tennessee

Lindsey Babcock (2020)  
Deputy Director of Athletics, Internal Operations  
BS, Elmira College; MS, West Virginia University

Pete Paukstelis (2019)  
Associate Counsel/Senior Athletics Advisor for Strategy & Risk Management  
BA, University of Kansas; JD, University of Michigan

Jane Caldwell (1999)  
Senior Associate Athletic Director for Student-Athlete Services and Assistant to the Dean of the College  
BS, UNC-Greensboro; MA, Wake Forest University

Randy Casstevens (2012)  
Senior Associate Athletic Director for Finance  
BS, MBA, Wake Forest University

Brad Darmofal (2004)  
Senior Associate Athletic Director for Finance  
BS, MBA, Wake Forest University

Barry Faircloth (2001)  
Senior Associate Athletic Director, Development  
BS, Wake Forest University

Murphy Grant (2019)  
Senior Associate Athletic Director, Sports Performance/Health Care Administrator  
BS, Quincy University; MS, Illinois State University

C. Todd Hairston (2005)  
Senior Associate Athletic Director for Compliance  
BS, Wake Forest University; MS, Meharry Medical College; PhD, Florida State

Rhett Hobart (2020)  
Associate Athletic Director, Fan Engagement and Brand Development  
BA, MBA Mississippi State University

Will Pantages (2019)  
Associate Athletic Director, Athletic Communications  
BA, Baldwin-Wallace College

Michael Piscetelli (2005)  
Associate Athletic Director, Principal Gifts  
BA, Wake Forest University

Ellie Shannon (2012)  
Associate Athletic Director  
BS, Grand Valley State; MS, Kansas State

Barbara Walker (1999)  
Deputy Director/SWA  
BS, MAEd, Central Missouri State

Ashley Wechter (2013)  
Assistant Athletic Director, Student-Athlete Development  
BS, Wake Forest University

## Campus Life

Penny Rue (2013)  
Vice President for Campus Life  
BA, Duke University; MA, Ohio State University; PhD, University Maryland (College Park)

Andrea Bohn (1997)  
Associate Vice President, Campus Life Finance & Operations

BS, Gardner Webb University

Adam Goldstein (2014)

Associate Vice President & Dean of Students

BA, Indiana University of PA; MEd, University of Georgia; PhD, University of Georgia

Matthew Clifford (2010)

Assistant Vice President & Dean of Residence Life and Housing

BA, Davidson College; MEd, University of South Carolina; EdD, University of North Florida

James D. Raper (2008)

Assistant Vice President, Health & Wellbeing

BA, Colgate University; MAEd, Wake Forest University; PhD, Syracuse University

Regina G. Lawson (1989)

Chief of University Police

BS, UNC-Wilmington

Timothy L. Auman (2003)

University Chaplain

BA, Wofford College; MDiv, Duke University; PhD, Interfaith Seminary/Mahidol University

Cecil D. Price (1991)

Director of Student Health Service

BS, MD, Wake Forest University

Joseph Cassidy (2016)

Executive Director for Campus Fitness & Recreation

BA, Bellarmine University; MS, Eastern Illinois University; MBA, University of Notre Dame

Michael P. Shuman (1997)

Director, Learning Assistance Center and Disability Services

BA, Furman University; MEd, University of South Carolina; PhD, UNC-Greensboro

Marian Trattner (2019)

Interim Director, Office of Wellbeing

BSW, MSW, University of Missouri

Warrenetta Mann (2021)

Director, University Counseling Center

BA, Vanderbilt University; MA, University of Louisville; PsyD, Spalding University

Ashleigh Hala (2021)

Director, Office of Wellbeing

BSW, Wheelock College; MSW, Boston University

## Chaplain's Office

Timothy L. Auman (2001)

Chaplain

BA, Wofford College; MDiv, Duke

Kellee Monet (K. Monet) Rice (2012)

Associate Chaplain

BA, Louisiana State; MDiv, Princeton Theological Seminary

K. Virginia Christman (2015)

Associate Chaplain

BA, University of Richmond; MDiv, Fuller Theological Seminary

Elizabeth Orr (2014)

Associate Chaplain, Catholic Life

BA, Stonehill College; MA, Boston College School of Theology and Ministry

Gail H. Bretan (2014)

Associate Chaplain, Jewish Life

BS, Temple University; BBA, Northwood University; MS, University of Arizona; PhD, UNC-Greensboro

Naijla Faizi (2017)

Associate Chaplain, Muslim Life

BS, Wake Forest University, MS University of Pennsylvania

Peggy Beckman (1997)

Office Manager

BA, Central Bible College

## Finance and Administration

B. Hofler Milam (2010)

Executive Vice President/CFO

BS, MBA, Wake Forest University

Kenneth Basch (2008)

Executive Director, Wake Forest Properties

BA, Ohio State; MBA, Case Western Reserve

Dedee DeLongpré Johnston (2009)

Vice President, Human Resources and Sustainability

BS, Southern California; MBA, Presidio

Mur K. Muchane (2015)

Vice President, Information Technology/CIO

BA, Warren Wilson College; MS, University of Tennessee

Emily G. Neese (2006)

Vice President, Finance, Strategy and Planning

BS, Wake Forest University

John J. Shenette (2014)

Vice President, Facilities & Campus Services

BS, Central New England College

John K. Wise (2002)

Associate Vice President, Hospitality & Auxiliary Services

BS, Wisconsin (Stout)

## Global Wake Forest

J. Kline Harrison (1990)

Associate Vice President

Associate Provost for Global Affairs and Kemper Professor of Business

BS, Virginia; PhD, Maryland

Leigh Hatchett Stanfield (1999)

Executive Director of Global Engagement and Administration

BA, Wake Forest University

David F. Taylor (2005)

Assistant Dean of Global Study Away

BA, Princeton; MALS, Wake Forest University

Jessica A. Francis (2007)



Director of Global Abroad Programs  
BA, St. Edward's; MALS, Wake Forest University

Nelson Brunsting (2008)  
Director of Global Research & Assessment  
BA, Wake Forest University; MA, Victoria University of Wellington, New Zealand; PhD, UNC-Chapel Hill

Kelia Hubbard (2016)  
Director of International Student & Scholar Services  
BA, UNC-Charlotte; MPA, Grand Canyon University

Steve Seaworth (2017)  
Executive Director, INSTEP-WFU Programs  
BA (Hons), University of Redlands; MA, University of California - Riverside

Blair Bocook (2017)  
Associate Director of International Student & Scholar Services  
BA, MA, Marshall

Porshe Chiles (2017)  
Associate Director of International Student & Scholar Services  
BS, University of Texas, Tyler; MEd, University of North Texas

Michael J. Tyson (2010)  
Assistant Director for Global Abroad Programs  
BA, UNC-Charlotte; MEd, University of South Carolina

Janice W. Claybrook (2006)  
Assistant Director & Program Coordinator for Global AWAKEnings  
BA, UNC-Chapel Hill; MS, UNC-Greensboro

Sandra Lisle McMullen (2012)  
Assistant Director for Global Campus Programs  
BS, Ball State; MA, Wake Forest University

Silvia Corraera (2014)  
Assistant to the Associate Provost of Global Affairs  
AA, LaGuardia Community College

Tara Grischow (2016)  
Senior Advisor for International Students and Scholars  
BA, Youngstown State; MA Youngstown State

Greta Smith (2018)  
Senior Advisor for International Students and Scholars  
BA, UNC-Greensboro

Rayna Minnigan (2017)  
International Student Advisor  
BS, Shaw University; MS, Georgetown University

Cody Ryberg (2016)  
Senior Study Abroad Advisor  
BA, Luther College; MS, St. Cloud State

Anna Marter (2016)  
Senior Study Abroad Advisor  
BFA, Tisch-New York University; MA, SIT Graduate Institute

Marcia Crippen (2017)  
Study Abroad Advisor  
BA, UNC-Charlotte; MEd, Old Dominion University

Sean McGlynn (2017)  
Study Abroad Advisor

BA, Plymouth State

Ashley Brookes (2017)  
Study Abroad Advisor  
BA, Gettysburg; MA, Boston College

Taylor Burdette (2017)  
Study Abroad Advisor  
BA, Gettysburg; MA, Boston College

Kim Snipes (2008)  
Project Coordinator for Global Campus Programs  
Attended Bob Jones

Kara Rothberg (2017)  
Program Coordinator for Global Campus Programs  
BA, Emory University; MA, Teachers College, Colombia

Sarah Dale (2018)  
Data and Records Specialist  
BA, Rollins; MS, University of Texas, Austin

Christina Deloglos (2019)  
Office Administrator  
BA, National Louis University

Sonali Kathuria (2019)  
Research Coordinator for Global Research & Assessment  
BA, University of North Carolina at Greensboro; BA, North Carolina State University

## Graylyn International Conference Center

John K. Wise (2002)  
Associate Vice President for Hospitality and Auxiliary Services  
BS, Wisconsin (Stout)

Alex Crist (2010)  
Director Parking and Transportation  
BS, University of Indianapolis

T. Matthew Pack (2004)  
Director of Conference Services  
BA Kentucky Wesleyan; MA, Murray State

Alyssa Armenta (2015)  
Marketing Manager  
BA, Salem College

Roger Brown (2015)  
Director of Food and Beverage  
Northern Arizona University

Shelley Brown (2010)  
Director of Sales  
BA, Austin Peay State

Mark McFetridge (2006)  
Director of Rooms  
BS, University of Florida

## Information Systems

Mur Muchane (2015)  
Vice President for Information Technology & CIO  
BA, Warren Wilson College; MS, University of Tennessee

Mary Jones (2015)  
Senior Director of IT Finance & Administration  
BA, UNC-Chapel Hill

Lynn McGowan (1998)  
Senior Director of Client Services  
BS, Wake Forest University

Rob Smith (2017)  
Senior Director of IT Infrastructure  
BA, College of William & Mary, USC-Columbia

Odi Iancu (2009)  
Senior Director, Enterprise Systems  
PhD, Delft University of Technology, the Netherlands

David Easton (2019)  
Director, Analytics and Data Governance  
BS Business Administration, University of North Carolina - Greensboro;  
MBA, Queens University

Steve Bertino (2018)  
Chief Information Security Officer  
BA, Rochester Institute of Technology; AAS, Monroe Community College

Hannah Inzko (2017)  
Senior Director, Academic Technology  
BA, Pennsylvania State University; MEd, University of Miami

Brent Babb (2015)  
Assistant Director IT Infrastructure  
AA, ECPI

Marty McGowan (1998)  
Assistant Director IT Infrastructure  
BS, UNC-Greensboro

Will Tomlinson (2014)  
Assistant Director of IT Infrastructure  
BA, Elon University

Sarah Wojcik-Gross (2007)  
Assistant Director Client Services  
BA, Mansfield University; MEd, Elmira College

Mike Greco (2015)  
Assistant Director Client Engagement  
BS, Lenoir-Rhyne College

Anthony Hughes (2010)  
Assistant Director Enterprise Systems  
BS, Southern Illinois University

Jeffrey Teague (2011)  
Assistant Director Information Security  
BS, MS, North Carolina State University

Sophia Bredice (2015)  
Assistant Director Client Services  
BS, Wake Forest University; MS, University of Virginia

Greg Collins (2013)  
Assistant Director of Client Services  
BS, East Carolina University

Phil May 1996)

Assistant Director of Workday Engagement  
BS, MBA, Wake Forest University

George Campbell (2019)  
Assistant Director Analytics & Data Governance  
BA, Wake Forest University; MA, Indiana University-Bloomington

Eudora Struble (2015)  
Assistant Director Technology Accessibility  
BA, University of Colorado - Boulder; MA, University of Chicago

Paul Whitener (2007)  
Assistant Director Digital Fabrication & Maker Education  
BA, University of North Carolina - Greensboro; AA, Forsyth Technical College

Georgre Campbell (2019)  
Assistant Director Analytics and Data Governance  
BA, Wake Forest University; MA, Indiana University-Bloomington

## Institutional Research

Philip G. Handwerk (2013)  
Director of Institutional Research  
BA, Wake Forest University; MS, NC State; PhD, Pennsylvania

Adam Shick (2001)  
Associate Director of Institutional Research  
BS, US Merchant Marine Academy; MA, Wake Forest University

Sara Gravitt (1996)  
Assistant Director of Institutional Research  
BS, High Point University

Alexandra Strullmyer (2021)  
Data Scientist  
BS, DePaul University; MA Wake Forest University

## Investments

James J. Dunn (2009)  
Senior Adviser to the President and CEO and CIO, Verger Capital Management, LLC  
BS, Villanova

Craig O. Thomas (2003)  
Managing Director of Investments, Verger Capital Management, LLC  
BS, Alfred; MS, Syracuse

Vicki J. West (2006)  
Chief Operating Officer, Verger Capital Management, LLC  
BA, Lenoir-Rhyne

Jeffrey M. Manning (2015)  
Chief Financial Officer, Verger Capital Management, LLC  
BS, MS & MBA, Wake Forest University

## Legal Department

J. Reid Morgan (1979)  
Senior Vice President, General Counsel and Secretary of the Board of Trustees  
BA, JD, Wake Forest University

William K. Davis (2012)  
Senior Counsel

AB, Davidson; MBA, UNC-Chapel Hill; LLB, Wake Forest University

Anita M. Conrad (1999)  
Counsel and Assistant Secretary of the Board of Trustees  
BA, Akron; JD, Wake Forest University

Dina J. Marty (2001)  
Deputy General Counsel  
BA, Drake; JD, Wake Forest University

K. Carter Cook (2004)  
Counsel  
BS, MBA, JD, Wake Forest University

Brian J. McGinn (2007)  
Associate Counsel  
BA, JD, Wake Forest University

Peter J. Paukstelis (2019)  
Associate Counsel  
BA, University of Kansas; JD, University of Michigan

## Libraries

Timothy Pyatt (2015)  
Dean, Z. Smith Reynolds Library  
AB, Duke University; MLIS, NC Central

Lauren Corbett (2008)  
Director, Resource Services, Z. Smith Reynolds Library  
BA, Davidson College; MLIS, UNC-Greensboro

Thomas P. Dowling (2012)  
Director, Technologies, Z. Smith Reynolds Library  
BM, MLIS, University of Michigan

James Harper (2012)  
Interim Director, Access Services, Z. Smith Reynolds Library  
BA, MLIS, University of North Carolina - Greensboro

Molly Keener (2006)  
Director, Digital Initiatives & Scholarly Communication, Z. Smith Reynolds Library  
BA, UNC-Chapel Hill; MLIS, UNC-Greensboro

Mary Beth Lock (2007)  
Associate Dean, Z. Smith Reynolds Library  
BS, Wayne State; MLS, NC Central; MALS, Wake Forest University

Rosalind Tedford (1994)  
Director, Research and Instruction, Z. Smith Reynolds Library  
BA, MA, Wake Forest University; MLIS, UNC-Greensboro

Tanya Zanish-Belcher (2013)  
Director, Special Collections and University Archives, Z. Smith Reynolds Library  
BA, Ohio Wesleyan; MA, Wright State

Mikhaela Payden-Travers (2018)  
Assitant Director, Library and College Development, Z. Smith Reynolds Library  
BA, College of William and Mary; MA, University of San Diego

E. Parks Welch III (1991)  
Director of the Coy C. Carpenter Library

BS, UNC-Chapel Hill; MBA, Wake Forest University; MLS, UNC-Greensboro

Christopher Knott (2012)  
Associate Dean for Information Services and Technology, Professional Center Library  
BA, Iowa; JD, Michigan; MLIS, Indiana

## Personal and Career Development

Andrew Chan (2009)  
Vice President, Innovation and Career Development  
BA, MBA, Stanford

Vicki L. Keslar (2009)  
Office Operations Manager & Executive Assistant to the Vice President  
BS, Indiana University of PA; MPM, Carnegie Mellon

Allison McWilliams (2010)  
Director, Mentoring Resource Center & Alumni Career Development  
BA, Wake Forest University; MA, PhD, Georgia

Amy Willard (2011)  
Assistant Director, Career Education & Coaching  
BA, NC State

Caleigh McElwee (2011)  
Associate Director, Career Coaching, School of Business  
BA, Wake Forest University; MS, EdS, UNC-Greensboro

Shan Woolard (2001)  
Assistant Director, Career Education and Coaching  
BA, Salem College; MS, UNC-Greensboro

Jessica Long (2014)  
Assistant Director, Career Education & Coaching  
BA Wake Forest, MS, UNCG

Cheryl Hicks (2014)  
Assistant Director, Career Education & Coaching  
BS, Texas A&M

Lauren Beam (2010)  
Associate Director, Mentoring Resource Center & Alumni Career Development  
BA, Wake Forest University; MS, UNC-Greensboro

Patrick Sullivan (1997)  
Interim Director, Career Education & Coaching  
BA, MBA, Wake Forest University

Heidi Robinson (2011)  
Part-time Associate Professor of the Practice in Education  
BA, Washington State; MA, Wake Forest University

Dana Hutchens (1991)  
Employer Experience Manager  
BS, UNC-Greensboro

Amy Bull (2013)  
Employer Experience Manager  
BS, Grove City College

Amy Wagner (1986)  
Office Manager

ShaShawna McFarland (2010)

Receptionist  
BS, Winston-Salem State

Rhonda Stokes (2007)  
Associate Director, Family Business Center- Charlotte Metro  
BA, Georgia

Polly Black (2010)  
Director, Center for Innovation, Creativity and Entrepreneurship  
BA, Vassar College; MA, Columbia; MBA, Virginia

Elisa Burton (1998)  
Program Coordinator, Office of Innovation, Creativity and  
Entrepreneurship  
BA, High Point

Michael A. Crespi (2004)  
Sr. Associate Director, Career Coaching, School of Business  
BA, BS, New Hampshire; MBA, Wake Forest University

Lori Sykes (2004)  
Associate Director, Corporate Relations  
BS, MBA, Appalachian State

Lisa Simmons (2002)  
Associate Director, Employer Experience  
BS, Rollins College; MALS, Wake Forest University

Mercy Eyadiel (2011)  
Associate Vice President, Career Development & Executive Director  
Corporate Engagement  
BA, Southern Nazarene; MAEd, Oklahoma City

## University Advancement

Mark A. Petersen (2008)  
Vice President for University Advancement  
BA, Brandeis; MA, Southern California

Robert T. Baker (1978)  
Senior Associate Vice President, University Development  
BA, MS, George Peabody (Vanderbilt)

Melissa N. Combes (1996)  
Associate Vice President, Presidential Advancement and Liaison to the  
Trustees  
BA, Washington College; MBA, Wake Forest University

Brett Eaton (2010)  
Senior Associate Vice President, Communications and External Relations  
and Executive Director of Wake Will Lead  
BA, Clemson; MBA, American

Michael Haggas (1994)  
Assistant Dean of Development, College  
BA, Clarke University

Maria Henson (2010)  
Associate Vice President and Editor-at-Large Wake Forest Magazine  
BA, Wake Forest University

Shaida Horner (1993)  
Associate Vice President, Gift Planning  
BA, UNC-Chapel Hill; M.Acct., UNC-Chapel Hill; JD, Wake Forest University

Linda Luvaas (2009)

Associate Vice President, Corporate and Foundation Relations  
BA, Allegheny College; MA, Duke

Minta A. McNally (1978)  
Associate Vice President, Office of Family Engagement  
BA, Wake Forest University

William T. Snyder (1988)  
Associate Vice President, Alumni and Donor Services  
BA, Wake Forest University

Mary Tribble (1982)  
Associate Vice President and Senior Advisor for Engagement Strategies  
BA, MA, Wake Forest University

T.J. Truskowski (2002)  
Executive Director of Development, School of Business  
BS, Eastern Michigan University; MBA, Davenport University

Sheila Virgil (1988)  
Assistant Dean of Development, School of Divinity  
BA, St. John's College; MNO, Case Western Reserve University

Logan Roach (2015)  
Assistant Dean of Development, School of Law  
BS, Wake Forest University

## University Registrar

Kenneth Gilson (2020)  
Assistant Provost for Academic Administration and University Registrar  
BA, Wheaton College (IL), MS, UIC John Marshall Law School; EdD,  
University of Southern California

Michael Moore (2019)  
Senior Associate Registrar  
BA, Ohio University; MBA, Strayer University; PhD, Old Dominion  
University

Brooks Brown (2018)  
Assistant Registrar  
BS, MEd, East Carolina University

Margaret Clayton (2014)  
Assistant Registrar  
BS, MS, East Carolina University

Fagueye Ndiaye-Dalmadge (2008)  
Assistant Registrar  
BS, MBA, Southern Illinois  
Damian Patterson (2019)  
Data Services Specialist  
BA, Bridgewater College

Susan Parrott (2007)  
Certification Officer  
BA, Duke University; JD, UNC-Chapel Hill

Shemeka Penn (2008)  
Assistant Registrar  
BA, East Tennessee State; MA, Strayer

Candace Speaks (2010)  
Academic Records Specialist

Sasha Suzuki (2006)

Assistant Registrar  
BA, MA, Wake Forest University

Richard Titus (2019)  
Assistant Registrar  
BA, MA, UNC-Greensboro

Jarrett Zongker (2017)  
Senior Systems Analyst  
BA, University of North Florida

## University Theatre

Jonathan Christman (2019)  
Director of University Theatre  
AB, Franklin & Marshall College; MFA, University of Massachusetts at Amherst

Evan Shuster (2019)  
Technical Director  
BA, Susquehanna University; MFA Virginia Tech

Leslie Spencer (2001)  
Audience Services Coordinator  
BA, Salem College

Alice Barsony (2012)  
Costume Studio Supervisor  
BFA, Rhode Island School of Design; MFA, UNC School of the Arts

Clare Parker (2018)  
Costume and Wardrobe Assistant  
BFA, Southern Oregon University; MFA, UNC School of the Arts

## Other Administrative Offices

Jarrod Atchison (2010)  
Director of Debate  
BA, MA, Wake Forest University; PhD, Georgia

Sam L. Beck (2008)  
Director, Student Professional Development (EY Professional Development Center, School of Business)  
BA, MA, Wake Forest University

C. Kevin Bowen (1994)  
Director of Bands  
BS, Tennessee Tech; MM, Louisville; PhD, Florida State

Paul Bright (2004)  
Director of Art Galleries and Programming  
BFA, South Carolina

Jessica Burlingame (2007)  
Interim Curator of Art Collections  
BA, Edinboro University of Pennsylvania; MA, UNC-Greensboro

Brian Gorelick (1984)  
Director of Choral Ensembles  
BA, Yale; MM, Wisconsin-Madison; DMA, Illinois

Andrew W. Gurstelle (2015)  
Academic Director of the Museum of Anthropology  
BA, University of Wisconsin-Madison; MA, PhD, University of Michigan

David Hagy (1995)

Director of Orchestra  
BM, Indiana; MM, MMA, DMA, Yale

Katy J. Harriger (1995)  
Faculty Director of the Wake Washington Program (Washington, D.C.)  
BA, Edinboro State University; MA, PhD, University of Connecticut

Dedee Delongpré Johnston (2009)  
Director of Sustainability  
BS, Southern California; MBA, Presidio Graduate School

Peter D. Kairoff (1988)  
Program Director of Casa Artom (Venice)  
BA, California (San Diego); MM, DMA, Southern California

Benjamin T. King (2007)  
Director of Interdisciplinary Programs (School of Business)  
BA, Virginia; MBA, Wake Forest University

Jonathan A. McElderry (2016)  
Assistant Dean of Students and Director of the Intercultural Center  
BS, George Mason University; MEd, Ohio University; PhD, University of Missouri

Véronique McNelly (2002)  
Faculty Director of the Dijon Program  
BA, MA, University of Virginia

Martine Sherrill (1985)  
Visual Resources Librarian and Curator of Print Collection  
BFA, MLS, UNC-Greensboro

Peter M. Siavelis (1996)  
Faculty Director of the Southern Cone Program (Argentina and Chile)  
BA, Bradley; MA, PhD, Georgetown

Kathy Smith (1981)  
Faculty Director of Worrell House (London)  
BA, Baldwin-Wallace University; MA, PhD, Purdue University

Rebecca Thomas  
Faculty Director of Flow House (Vienna)  
BA, MA, University of California-Los Angeles; PhD, Ohio State University



# UNDERGRADUATE

## Wake Forest College

### and the School of Business of Wake Forest University

Announcements for 2021/2022

The course offerings and requirements of the undergraduate schools are continually under examination, and revisions are expected. This Bulletin presents the offerings and requirements in effect at the time of publication and in no way guarantees that the offerings and requirements will remain the same.

Every effort is made to provide advance information of any changes.

- Wake Forest College
- Academic Calendar
- Procedures
- Financial Aid
- Special Programs
- Center for Global Programs and Studies
- Requirements for Degrees
- Departments/Programs
- Wake Forest University School of Business
- Wake Forest College Faculty
- School of Business Faculty
- Emeriti

## Academic Calendar

The following calendar is effective as of June 15th, 2021. Updates may have occurred since the publication of the Bulletin. Please refer to the Academic Services calendar on the Registrar's website (<https://registrar.wfu.edu/calendars/>) for the most up-to-date version.

### Fall Semester 2021

Date	Day	Event
August 18	Wednesday	Residence Halls open for new students*
August 20	Friday	Residence Halls open for returning students*
August 23	Monday	Classes begin
September 6	Monday	Last day to add full-term classes**
September 6	Monday	Labor Day - classes are in session, staff holiday
September 27	Monday	Last day to drop a full-term class**
October 7-10	Thursday-Sunday	Fall Break (No Thursday and Friday classes)
October 18	Monday	Mid-term grades due by noon
October 25	Monday	Last day to drop with a grade of "W"
November 24-28	Wednesday-Sunday	Thanksgiving Holiday
December 3	Friday	Classes end
December 4-5	SA-SU	Reading Days

December 6-11	Monday-Saturday	Fall final exams
December 12	Sunday	All Residence Hall close at 2pm*
December 15	Wednesday	Fall final grades due by noon
December 13-Jan 9		Winter Recess

### Spring Semester 2022

Date	Day	Event
January 8	Saturday	Residence Hall open*
January 10	Monday	Classes begin
January 17	Monday	Martin Luther King Jr. Holiday (no classes)
January 25	Tuesday	Last day to add full-term classes**
February 15	Tuesday	Last day to drop a full-term class**
February 18	Thursday	Founders' Day Convocation
March 5-13	Saturday-2nd Sunday	Spring Break (no classes)
March 21	Monday	Last day to drop with a grade of "W"***
April 15	Friday	Good Friday observed (No classes)
April 27	Wednesday	Classes end
April 28, May 1 & 3	Thursday, Sunday, Tuesday	Reading Days
April 29-30, May 2, May 4-6	F-Sa, Mon, Wed-Fri	Spring final exams
May 10	Tuesday	Final grades due for May Degree Candidates by noon
May 16	Monday	Commencement
May 17	Tuesday	Final grades due for non-degree candidates

\* Consult Residence Life and Housing (<https://rlh.wfu.edu/>) for a schedule of opening and closing times.

\*\* For courses taught in less than the full term's duration (e.g., 7.5 week classes) proportional drop and add deadlines are available on the Academic Services calendar on the Registrar's website (<https://registrar.wfu.edu/calendars/>).

# WAKE FOREST COLLEGE

*Wake Forest College of Wake Forest University is the center of the University's academic life; through it, the University carries on the tradition of preparing men and women for personal enrichment, enlightened citizenship, and professional life.*

Wake Forest College is a place of meeting. Its teachers and students are of diverse backgrounds and interests, and that diversity is crucial to the distinctive character of the College. Wake Forest continually examines its educational purpose and evaluates its success in fulfilling it. A formal statement of purpose was prepared as part of the school's decennial reaccreditation process and was adopted by the Board of Trustees.

## The Undergraduate Schools

The undergraduate schools, Wake Forest College and the Wake Forest School of Business, are governed by the Board of Trustees, the University administration and by their respective faculties. Responsibility for academic administration is delegated by the president and trustees to the provost, who is the chief academic officer of the University. The deans of the schools report to the provost and are responsible for academic planning and administration for their schools.

Wake Forest College has undertaken bold initiatives to make standardized tests optional for undergraduate applicants, develop new programs to educate the whole person, reinvent the 21<sup>st</sup> century liberal arts education with personal and career preparedness a key focus and build greater community through a three-year residency requirement.

## Honor System

Wake Forest University upholds the ideals of honor and integrity. The Honor System is central to University life; its essence is a commitment by each person to do what is right and abide by community standards. Each student is pledged to be trustworthy in all matters, and a violation of that trust is an offense against the community as a whole. In the specific terms of the Honor Code, a student pledges in all phases of life not to cheat, plagiarize, engage in other forms of academic or social misconduct, deceive, or steal. The strength of the Honor System derives from the commitment of each and every student to uphold its ideals.

The undergraduate student conduct system is jointly administered by the Office of the Dean of the College, the Office of the Dean of Student Services, and the Judicial Council. Complete details are available at the Offices of the Dean of the College and the Dean of Students.

## Student Complaints

Situations may arise in which a student believes that he or she has not received fair treatment by a representative of the University or has a complaint about the performance, actions, or inaction of the staff or faculty affecting a student. There are mechanisms in place for the reporting and resolution of complaints regarding specific types of concern (student conduct, honor system, bias, grade dispute, harassment and discrimination, for instance), and these should be fully used where appropriate. Students are encouraged to seek assistance from faculty advisers, deans' offices in the College or Business School, or the Office of the Dean of Students when evaluating the nature of their complaints and deciding on an appropriate course of action.

The complaint process outlined below is meant to answer and resolve issues arising between individual students and the University and its

various offices when a mechanism for reporting and resolution of the specific type of concern is not already in place. A complaint cannot be filed on behalf of another person. A complaint should first be directed as soon as possible to the person or persons whose actions or inactions have given rise to the problem—not later than three months after the event.

For complaints in the academic (i.e., classroom) setting, the student should talk personally with or send a written complaint explaining the concern directly to the instructor. Should the student and instructor be unable to resolve the conflict, the student may then turn to the chair of the involved department (in the Wake Forest School of Business, this would be the dean) for assistance. The chair (or dean) will communicate with both parties, seek to understand their individual perspectives, and within a reasonable time, reach a conclusion and share it with both parties. If the student's complaint is not resolved by these procedures, the student should consult with the Office of Academic Advising for assistance. The Associate Dean for Academic Advising will consult with the parties to obtain a resolution. Finally, a student may appeal to the Committee on Academic Affairs which will study the matter, taking input from all parties, and reach a final decision concerning resolution.

For complaints outside the academic setting, the student should talk personally with or send a written complaint explaining the concern directly to the individual involved. Should the student and individual be unable to resolve the concern, the student may then turn to the appropriate administrative channel for assistance, which may be an immediate supervisor, department head, or Dean. The immediate supervisor, department head, or dean will meet or communicate with both parties, seek to understand their individual perspectives, and within a reasonable time, reach a conclusion and share it with both parties. Finally, a student may appeal to the vice president with administrative responsibility for the issue that is the subject of the concern. The vice president will study the matter, work with the parties, and reach a final resolution. Students uncertain about the proper channels are encouraged to seek advice from faculty advisers, deans' offices, or the Office of the Dean of Students.

# PROCEDURES

*Students are responsible for familiarizing themselves with the portions of this bulletin that pertain to their course of study. Statements concerning courses and expenses are not to be regarded as irrevocable contracts between the student and the institution. The University reserves the right to change the schedule and modality of classes and the cost of instruction at any time within the student's term of enrollment.*

## Admission

Candidates for admission must furnish evidence of maturity and educational achievement. The Committee on Admissions carefully considers the applicant's academic records, scores on any submitted standardized tests, written portion of the application, and evidence of character, motivation, goals, and general fitness for study in the College. The applicant's secondary school program must establish a commitment to the kind of broad liberal education reflected in the academic requirements of the College.

Admission as a first-year student normally requires graduation from an accredited secondary school with a minimum of 16 units of high school credit. These should include 4 units in English, 3 in mathematics, 2 in history and social studies, 2 in a single foreign language, and 1 in the natural sciences. An applicant who presents at least 12 units of differently distributed college preparatory study can be considered. Homeschooled students submitting all required documentation of the application will be considered. Additional documentation outlining the homeschool curriculum, including transcripts from courses taken outside the home and Advanced Placement or other standardized test scores are welcomed. A limited number of applicants may be admitted without the high school diploma, with particular attention given to ability, maturity, and motivation.

## Application

An application is secured from the Office of Undergraduate Admissions in person, online (<https://admissions.wfu.edu/>), or by mail:

P.O. Box 7305  
Winston-Salem, North Carolina 27109-7305

It should be completed and returned to that office no later than January 1 for the fall semester. Most admissions decisions for the fall semester are made by April 1, with prompt notification of applicants. For the spring semester, applications should be completed and returned no later than November 15.

The admission application requires records and recommendations directly from secondary school officials. Submission of standardized test scores is optional. If submitting scores, they should be sent directly to the University by the official testing service. A nonrefundable \$65 fee to cover the cost of processing must accompany an application. It cannot be applied to later charges for accepted students or refunded for others. The University reserves the right to reject any application without explanation.

A \$1500 nonrefundable admission deposit is required of all regularly admitted students and must be sent to the Office of Undergraduate Admissions no later than May 1 following notice of acceptance. It is credited toward first semester fees and is nonrefundable. Students notified of acceptance after May 1 for the fall semester or November 1 for the spring semester should make a

nonrefundable admission deposit within two weeks of notification. Failure to make the admission deposit is taken as cancellation of application by the student. No deposit is required for summer session enrollment.

## Early Decision

Wake Forest has two binding early decision plans for students who have decided conclusively that Wake Forest is their first college choice. While early decision applicants may submit regular decision applications to other institutions, Wake Forest must be the applicant's first choice and only early decision application. Students, parents, and school counselors must sign the Early Decision Agreement stating that the applicant will enroll if admitted and will withdraw all applications to other colleges upon acceptance to Wake Forest.

Early Decision I (ED I) students may apply after completion of the junior year but no later than November 15. ED I applicants are notified on a rolling basis, typically six to eight weeks after the application is completed.

Early Decision II (ED II) applicants must follow the same exclusivity guidelines as required for ED I. The ED II application deadline is January 1. ED II is not rolling; decisions are released in mid-February.

A \$1500 enrollment deposit is due within two weeks of acceptance notification for both ED I and ED II.

## Admission of Students with Disabilities

Wake Forest College will consider the application of any qualified student, regardless of disability, on the basis of the selection criteria established by the University which include personal and academic merit. Upon matriculation, all students will be required to meet the same standards for graduation.

The University endeavors to provide facilities which are in compliance with applicable laws and regulations regarding access for individuals with disabilities. Additionally, services are available to provide reasonable accommodations to students with disabilities. For more information on assistance for undergraduate students, please contact the director of the Learning Assistance Center, at 336-758-5929 or refer to Disability Services under Campus Life on the Wake Forest website.

## Admission of Transfer Students

The number of transfer students who can be admitted each year depends upon the availability of space in the first-year (second semester), sophomore, and junior classes. Transfer students must be eligible for readmission to the last college attended and must supply a Dean's Statement(s) from all colleges attended. The Dean's Statement addresses any disciplinary action that may have been taken against the student for academic or non-academic reasons. The student must have an overall average of at least C on all college work attempted.

Courses satisfactorily completed in other accredited colleges are accepted subject to faculty approval. In general, no credit is allowed for courses not found in the Wake Forest curriculum. To earn a baccalaureate degree from Wake Forest University, a minimum of half of the degree requirements must be completed at Wake Forest, the senior year and one other.

Additionally, Wake Forest has a six-semester (typically three-year) residency requirement. Students are required to live in campus housing their first three years unless they live with a parent or guardian in

the Winston-Salem area. In addition, the University is committed to housing students who request to live on-campus after fulfilling the residency requirement. Students who study abroad during the fall or spring semesters are given credit for that time toward their residency requirement; summer sessions do NOT count toward residency requirements. Transfer students are expected to fulfill the six-semester residency requirement. However, transfer students who have lived on campus at another institution are given credit for that time toward their residency requirement. See "Housing" for more information.

## Student Health

### Student Health Service

The Student Health Service's goal is to promote and advance the health and wellbeing for all students. A physician-directed medical staff offers primary care services, urgent care, illness care, physical examinations, counseling, limited psychiatric care, allergy injections, immunizations, radiology, gynecological services, pharmacy, laboratory, sports medicine clinic, referral to specialists, and medical information and vaccinations related to travel to international destinations.

### Student Health Portal

Students now can make most appointments online through the Student Health Portal. The best way to access this portal is through the SHS website (<http://shs.wfu.edu>). This is a secure way to make appointments, view published labs, print off a copy of your immunization history on file, print receipts and securely communicate with our clinic. SHS's primary way to communicate with students will be through their student email account. We send out appointment reminders 24 hours before your appointment and send messages for you to log into the Student Health Portal to view secure messages from the clinic. Students are encouraged to make appointments to be seen at the clinic. If you choose to walk in without an appointment, you will be seen by one of our staff nurses. The nurse will evaluate you and try to get you in with a medical provider if necessary and if one is available. We cannot guarantee the availability of a medical provider if you choose to come to the clinic without an appointment.

### Medical Charges

Most services at SHS are covered by the Student Health Fee. In addition, there are discounted "fee-for-service" charges for medications, laboratory tests, observation care, procedures, and some supplies. Payment can be made by paying cash, check, Deacon One Card, Student Blue Insurance, or the charge can be transferred to the student's account in Office of Financial and Accounting Services. Each student is given a copy of the medical charges incurred on the date of service which can be used for insurance filing. Student Health Service does not participate nor do we file insurance claims on behalf of the patient.

### Radiology

New to Student Health. As a partnership with Wake Forest Baptist Medical Center, Student Health now offers on site X-rays. With this partnership Wake Forest Baptist will be able to bill your medical insurance for services. All billing will be handled by Wake Forest Baptist and the remaining portion after your insurance processes the claim will be your responsibility.

### Confidentiality

Student medical records are confidential. Medical records and information contained in the records may be shared with therapists and

physicians who are involved in the student's care, and otherwise will not be released without the student's permission except as allowed by law. Students who wish to have their medical records or information released to other parties should complete a release of information form at the time of each office visit or service.

### Class Excuses

The responsibility for excusing students from class rests with the faculty. Consequently the Student Health Service does not issue "excuses" for students. Students who are evaluated at the Health Service are encouraged to discuss their situations with their professors. A receipt documenting visits is available to students at checkout. Information concerning hospitalization and prolonged illnesses is sent, with the student's permission, to the appropriate Dean.

### Student Insurance Program

Health insurance is required as a condition of enrollment for all degree-seeking\* students at Wake Forest University. Students who demonstrate comparable coverage to WFU's health insurance plan and meet our criteria may waive the coverage provided by WFU. Information about the policy plan, process instructions and full information regarding eligibility can be found online (<http://sip.studentlife.wfu.edu/>).

### Inclement Weather

When the University is closed due to inclement weather, the Student Health Service may have limited staff and may be able to provide care only for injuries and urgent illnesses. Appointments may be rescheduled.

### Retention of Medical Records

Student medical records are retained for 10 years after the last treatment, after which time they are destroyed. Immunization records are kept longer.

\* Certain part-time students are not eligible.

### Student Health Information and Immunization Form

All new students are required to complete this form (<http://shs.wfu.edu/forms/>). It must be received by the Student Health Service before June 30 for new students entering fall semester or before January 1 for new students entering spring semester. This form (<http://shs.wfu.edu/forms/>) requires information in regard to documentation of immunizations required by the University and the State of North Carolina.

## Immunization Policy

**North Carolina State Law** (G.S. 130A-152) requires documentation of certain immunizations for students attending a North Carolina college or university. Wake Forest University adheres to the State Law, also requiring WFU students to provide documentation of immunizations. Students must submit certification of these immunizations **prior to registration**. Documentation should be on or attached to *the completed* "Health Information & Immunization form (<https://bulletin.wfu.edu/undergraduate/procedures/student-health/shs.wfu.edu/forms/>)" *provided by the Student Health Service* in order to assure correct identification of the student. Acceptable documentation is a statement signed by the appropriate official(s) having custody of the records of immunization, such as a physician, county health department director. The State statute applies to all students except those registered in off-campus courses only, attending night or weekend classes, or taking a course load of four credit hours or less.

The American College Health Association recommendations and **North Carolina State law** require certification in accordance with the following.

#### Required:

1. **Tetanus/Diphtheria/Pertussis.** Students must document **three doses** of a combined tetanus diphtheria vaccine (DTaP, Td, or Tdap) of which one must be a Tdap after May 2005.
2. **Rubeola (Measles).** Students must document **two doses** of live virus measles vaccine given at least 30 days apart, on or after their first birthday unless
  - a. they were born prior to January 1, 1957 or
  - b. they have documentation of a titer indicating they are immune.
3. **Rubella (German measles).** Students must document that they have had one dose of live virus vaccine on or after their first birthday unless
  - a. they have documentation of a titer indicating they are immune, or
  - b. they will be 50 years old before they enroll. History of the disease is **not** acceptable.
4. **Mumps.** Students must document **two doses** of live virus mumps vaccine given at least 30 days apart, on or after their first birthday unless
  - a. they were born before January 1, 1957 or
  - b. they have documentation of a titer indicating they are immune. History of the disease is **not** acceptable.
5. **Polio.** Students must document that they have had a total of three doses of trivalent polio vaccine if they are less than 18 years of age when they enroll. One of these doses must be after the age of four years.
6. **Hepatitis B.** Students are required to document three doses of Hepatitis B vaccine if born on or after July 1, 1994. The first and second doses must be at least 28 days apart. The third dose must be at least 56 days (or eight weeks) after the second dose and at least 16 weeks after the first dose; the third dose cannot be given any earlier than 24 weeks of age. Regardless of age Hepatitis B vaccine is recommended for all students.
7. **Tuberculosis test (PPD or TB blood test).** Required within 6 months of the University registration date for
  - a. students who may have been exposed to tuberculosis or have signs or symptoms of active tuberculosis disease or
  - b. students who have lived more than 30 days in a country other than those designated as low risk for tuberculosis by Centers for Disease Control (CDC). If the student's tuberculosis test is positive, chest x-ray results and record of treatment must be documented.
8. **Meningococcal.** CDC recommends routine vaccination with quadrivalent meningococcal conjugate vaccine at age 11 or 12 years, with a booster dose at age 16 years. For adolescents who receive their first dose at age 13-15 years, a one-time booster dose should be administered after age 16 years. Persons who receive their first dose at age 16 years do not need a booster dose.

#### Recommended:

1. **Varicella.** The two-dose series is recommended. Discuss with your health care provider.
2. **Human Papillomavirus Vaccine (HPV/Gardasil).** A three-dose series.
3. **Pneumovax.** A vaccine which prevents illness from a strain of bacteria that can cause pneumonia and death. This vaccine is recommended for individuals 19 and older who have asthma or

smoke. It is also recommended for those ages 2-64 with any of the following conditions: diabetes, sickle cell disease, lung disease, cochlear implants, CSF leaks, or conditions or medication which lower resistance to infection.

4. **Hepatitis A.** A two-dose series.

**Immunizations required under North Carolina law must be documented within 30 days following registration.** After that time, students with incomplete documentation of immunizations will not be permitted to attend classes. Please note that some series require several months for completion.

## Tuition and Fees

### Expenses

Statements concerning expenses are not to be regarded as forming an irrevocable contract between the student and the University. The costs of instruction and other services outlined herein are those in effect on the date of publication of this bulletin, and the University reserves the right to change without notice the cost of instruction and other services at any time.

Charges are due in full on August 1 for the fall semester and December 1 for the spring semester. Faculty regulations require that student accounts be settled in full before the student is entitled to receive an official transcript or diploma, or to register for classes.

### Tuition

Fee	Per Semester	Per Year
Full-time	\$29,354	\$58,708
Part-time	\$2,434/semester hour *	
Audit Fee	\$75/semester hour	

\* *Students must receive approval prior to the start of classes for part-time study.*

Students should expect an increase yearly in tuition. Students must obtain approval for part-time status prior to the beginning of the semester from the Office of Academic Advising to be eligible for part-time tuition.

Students enrolled in the College or in the School of Business for full-time residence credit are given full privileges regarding libraries, laboratories, athletic contests, concerts, publications, the Student Union, the University Theatre, and Student Health Services. Part-time students are granted the use of the libraries, laboratories, and Student Health Services but not to the other privileges mentioned above.

Students are required to arrive on campus by the last day to add a course for each semester.

### Room Rates

Room Type	Per Semester	Per Year
Deacon Place rooms	\$6,216	\$12,432
Single rooms and all apartments	\$5,983	\$11,966
Double rooms	\$5,072	\$10,144
Triple rooms	\$4,506	\$9,012



## Meal Plans

All resident students are required to sign-up for a meal plan. Choose the plan that best fits your lifestyle and the minimum plan for your housing type. To select your plan, first, log in to the Housing Portal (<https://wfu.starrezhousing.com/StarRezPortalX/>). Off-campus residents may purchase a meal plan, but are not required to do so. For specific details on all meal plans choices, including the specific meal plans and prices, please visit Deacon Dining's website (<https://www.deacondining.com/meal-plans/undergraduate-meal-plans/>).

All students, regardless of class year, can change (increase or decrease) their meal plan for the fall semester through August 1, adhering to area and class year minimums. **Plan decreases for the fall semester are not allowed after August 1**; however, plan increases will be accepted through September 30 adhering to area and class year minimums. **Plan decreases for the spring semester are not allowed after January 3**; however, plan increases will be accepted through January 31 adhering to area and class year minimums.

Summer meal plans are nonrefundable. Fall and spring meal plan adjustments due to withdrawal are based on the last day residing in the Residence Hall and follow the University Official Schedule of Refunds for Withdrawal or Continuous Enrollment.

## Deacon Dollars

In addition to a meal plan, students may also purchase Deacon Dollars. The Deacon Dollar account is a debit account system on the student ID card that allows purchases throughout campus.

## Meal Plan Options

Meal Plan	Food Dollars	Cost/Semester
Freedom Plan	\$400	\$3,935 (Available to everyone; Includes 10 Guest Meals)
Black Plan	\$400	\$3,314 (Available to everyone, including first-year students)
Base Plan	\$400	\$2,950 (First-year students minimum, available to everyone)
Gold Plan	\$800	\$2,865 (Available to all upper-class and off-campus students)
Screamin' Plan	\$450	\$1,959 (Minimum for Quad, Palmer/Piccolo, Dogwood & Magnolia. Also available to Apartments, Road Houses and off campus only)
Apartment Style Plan	\$300	\$1,124 (Minimum for all Apartments (including Martin & Polo) and Road Houses. Also available to off-campus students)

Commuter Plan	\$250	\$704 (Available to off-campus students only)**
Forestry Plan	\$150	\$2950

\*\* Commuter students only

## Other Fees

An *admission application fee* of \$85 is required with each application for admission to cover the cost of processing and is nonrefundable.

An *admission deposit* of \$1,500 is required for students applying to Wake Forest University. All admissions deposits must be submitted to the director of admissions and are nonrefundable. The applicable deposit is credited to the student's charges for the semester for which he or she has been accepted for admission.

A *tuition deposit* of \$500 is required by March 31st of students enrolled in the spring semester who expect to return for the fall semester. It is credited to the student's fall semester University charges and is nonrefundable.

*Individual instruction music fees* are required in addition to tuition for students enrolling for individual study in applied music in the Department of Music and are billed to the student account by Student Financial Services. The fee is \$325 for ½-hour music classes and \$650 for 1-hour music classes with a maximum fee of \$650 per semester.

A *one-time nonrefundable new-student orientation fee* of \$270 is charged to all new and transfer students in the fall semester.

A *mandatory nonrefundable student health fee* of \$490 per year is charged for all full time students.

A *mandatory nonrefundable student activity fee* of \$200 per year is charged to all full time students.

A *mandatory nonrefundable wellness fee* of \$372 per year is charged to all full time students.

A *study abroad enrollment fee* of \$3,522 per semester is charged to students enrolled in an Affiliate (non-Wake Forest) program.

A *continuous enrollment fee* of \$100 per semester is charged to a student who has been granted continuous enrollment.

*Library fees* are charged for lost or damaged books and are payable in the library.

*Returned check fee* of \$25 is charged for each returned check or returned DEAC payment by the Office of Financial Services

## Student Health Insurance

*Student Health Insurance Premium.* Wake Forest University requires health insurance for all full-time, degree-seeking students. Students who demonstrate coverage that meets our criteria may waive the insurance provided by WFU. Students may apply for a waiver or enroll online (<http://www.bcsnc.com/wfu/>) beginning June 1st. Premiums for student health insurance will be determined each year and published on the Wake Forest University website. Complete details and criteria can be found online (<https://shi.wfu.edu/>).

*Medical Leave Continuous Enrollment Status.* Students enrolled in the health insurance plan may continue coverage for a maximum of one

year while on medical continuous enrollment status approved by the University. Students must intend to return and remain a degree-seeking candidate and remit appropriate premiums. To determine if you are eligible, please contact Student Blue for more information at 800-579-8022 or Ann Madigan at 336-758-4247.

## Refunds

A student who officially withdraws or is granted continuous enrollment status during a semester may be entitled to a refund of tuition, housing, and dining charges depending on the student's date of withdrawal, date of continuous enrollment status, and/or the last day residing in University housing. A withdrawal, official or otherwise, or grant of continuous enrollment status also affects financial aid eligibility, as outlined in the federal Return of Title IV Program Funds Policy and the Return of Non-Title IV Program Funds Policy. A student using scholarships, grants, or loans to pay educational expenses, whose account was paid-in-full prior to withdrawal or grant of continuous enrollment status, is likely to owe the University after withdrawal or grant of continuous enrollment status. Procedures for such changes of status are coordinated by the Office of Academic Advising.

## Refund of Charges Policy

### Tuition and Fees

Tuition refunds are based on the date of official withdrawal or the effective date of continuous enrollment status. Please refer to the official "Schedule of Refunds for Withdrawal or Continuous Enrollment" for the respective semester of enrollment. Refunds will be reduced by the amount of any outstanding charges on a student's account. If refunded charges leave a credit balance on the student account, the student is responsible for completing an online student refund request at (<http://finance.wfu.edu/sfs/student-refund/>) or the credit balance will remain on the student account and will be applied for future semesters. If the credit is a direct result of Title IV aid, the credit is automatically refunded to the student.

There are no refunds for mandatory fees after the first class day in a semester as reflected in the academic calendar.

Vehicle registration fees will not be refunded unless the issued permit is returned to Transportation and Parking Services before the first day of class. Students graduating or studying abroad for spring semester may receive a prorated refund of the vehicle registration fee by returning the issued permits to the Transportation and Parking Services office.

### Fall & Spring Semesters - Schedule of Refunds for Withdrawal or Continuous Enrollment

Official Date	Tuition Refunded
Before classes begin	100% tuition (-) deposit
First week of classes	85%
Second week of classes	75%
Third week of classes	50%
Fourth week of classes	30%
Fifth week of classes	20%
After fifth week of classes	0%

### Summer Sessions I & II (6 week sessions) - Schedule of Refunds for Withdrawal or Continuous Enrollment

Official Date	Tuition Refunded
First three class days	100% tuition, less deposit
Fourth class day	75%
Fifth class day	50%
Sixth class day	25%
After sixth class day	0%

### Full Summer Session (12 week session) - Schedule of Refunds for Withdrawal or Continuous Enrollment

Official Date	Tuition Refunded
First five class days	100% tuition, less deposit
Sixth - Ninth class day	75%
Tenth - Twelfth class day	50%
Thirteenth - Fifteenth class day	25%
After fifteenth class day	0%

Students are responsible for officially dropping courses to be eligible for a refund. Nonpayment for classes for which a student is registered or non-attendance in a registered class does not release the student from financial obligations and will not drop the student from the class. Student Financial Services calculates the refund of charges and will apply the amount of tuition refunded in the applicable refund schedule listed above. Student Financial Services has available an example of the application of the University Refund of Charges Policy. If charges originally paid by financial aid funds are no longer covered after financial aid funds are returned to the respective programs, the student is responsible for the remaining balance.

### Housing and Dining

Housing and dining refunds for the fall and spring semesters are based on the student's official check-out date from University housing and are calculated based on the official "Schedule of Refunds for Withdrawal or Continuous Enrollment" for the applicable semester. Students with dining plans who do not reside in University housing will receive a refund of dining charges based on the date of official withdrawal or the effective date of the continuous enrollment status. Dining refunds are only applicable to dining charges billed to the student account. If a student's dining plan balance is less than the eligible calculated refund then the lesser of the two amounts will be refunded. There are no housing or dining refunds for summer terms; those charges are nonrefundable.

### Conduct or Honor Code Violations

Tuition, fees, housing, dining and all other charges will not be refunded when a student is suspended or expelled from the University as a result of a conduct or honor code violation. Similarly, housing charges will not be refunded when a student is suspended or expelled from University housing. Return of Title IV funds are handled in accordance with federal law.

\*Refunds will be reduced by the amount of any outstanding charges on a student's account.

## Pursuant to The Veterans Benefits and Transition Act of 2018

GI Bill and VR&E beneficiaries (Chapter 33 and Chapter 31 beneficiaries) may attend a course of education or training for up to 90 days from the date the beneficiary provides:

A certificate of eligibility, or a "statement of benefits" obtained from the VA's eBenefits web site, or a valid VAF 28-1905 form for Chapter 31 authorization purposes, provided that the student beneficiary provides such documentation to the appropriate VA Certifying Official no later than the first day of a course of education, and provided that the student provides any additional payment amount due that is the difference between the amount of the student's financial obligation and the anticipated amount of the VA education disbursement to Wake Forest University.

This policy allows a student to attend the course until the VA provides payment to Wake Forest University. Wake Forest University will not impose a penalty, or require the beneficiary to borrow additional funds to cover tuition and fees due to late payments from the VA.

## University Disruption Refund Policy

Circumstances may arise during a semester that cause significant disruptions to University operations and result in the University closing the campus. These circumstances include, without limitation, extreme weather, fire, natural disaster, war, labor disturbances, loss of utilities, riots or civil commotions, epidemic, pandemic, public health crisis, power of government, or any other circumstance like or unlike any circumstance mentioned above, which is beyond the reasonable control or authority of the University.

In the event of a significant disruption to University operations either:

- During a semester that results in the University closing campus for the remainder of the semester;
- At the beginning of a semester that delays or prevents the University opening campus; or
- During a semester that results in the University closing campus temporarily during the semester

The University will issue refunds for housing and dining charges and wellness and parking fees to students where applicable and according to the refund schedule below. There will be no refunds for tuition or Student Health, Student Activity, or any other fees paid by or on behalf of students. Refunds (if applicable) will be calculated at the end of the semester.

This policy applies to significant disruptions where the University closes campus. It does not apply where students officially withdraw from the University or are officially granted continuous enrollment status during a semester. Refunds, if any, in those circumstances are governed by the University's Refund of Charges Policy.

## Fall & Spring Semesters - University Disruption Refund Schedule

Number of Whole or Partial (Sunday-Saturday) Weeks When Campus is Open	Refund Percentage
0	100%
1	85%

2	78%
3	71%
4	64%
5	57%
6	50%
7	43%
8	36%
9	29%
10	22%
11	15%
12	10%
13	No Refund
14	No Refund
15	No Refund
16	No Refund

## Summer Sessions I & II (6 week sessions) - University Disruption Refund Schedule

Number of Whole or Partial (Sunday-Saturday) Weeks When Campus is Open	Refund Percentage
0	100%
1	75%
2	50%
3	25%
4	No Refund
5	No Refund
6	No Refund

## Full Summer Session (12 week session) - University Disruption Refund Schedule

Number of Whole or Partial (Sunday-Saturday) Weeks When Campus is Open	Refund Percentage
0	100%
1	85%
2	75%
3	65%
4	55%
5	45%
6	35%
7	25%
8	15%
9	No Refund
10	No Refund
11	No Refund
12	No Refund

## Return of Title IV Program Funds Policy

The 1998 amendments to the Higher Education Act (HEA) of 1965 (Section 484B), and subsequent regulations issued by the United States Department of Education (34 CFR 668.22), establish a policy for the return of Title IV, HEA Program grant and loan funds for a recipient who withdraws. Wake Forest University's continuous enrollment policy does

not exempt any student from the requirements of the Return of Title IV Funds policy; nor does it extend federal student loan deferment benefits. Title IV Funds subject to return include the following aid programs: Federal Pell Grant, Federal Supplemental Educational Opportunity Grant, Federal Iraq & Afghanistan Service Grant, Federal Teacher Education Assistance for College & Higher Education Grant, Federal Direct Loan (subsidized and unsubsidized), and Federal Direct PLUS Loan.

Title IV aid is awarded and paid on a payment period basis. For students enrolled in a single session or module of a payment period (such as summer), the single session or module is the payment period. For students who are awarded Title IV aid based on a reported registration in multiple sessions or modules of a payment period, the payment period is the beginning (start date) of the first session or module through the end (last day of exams) of the last session or module. Students who do not complete a payment period upon which Title IV aid was awarded, are considered to be withdrawn from the payment period and are subject to the Return of Title IV Program Funds Policy.

The percentage of the payment period completed is determined by dividing the total number of calendar days comprising the payment period (excluding breaks of five or more consecutive days) into the number of calendar days completed. The percentage of Title IV grant and loan funds earned is:

1. up through the 60% point in time, the percentage of the payment period completed,
2. after the 60% point in time, 100%. The amount of Title IV grant and loan funds unearned is the complement of the percentage of earned Title IV funds applied to the total amount of Title IV funds disbursed (including funds that were not disbursed but could have been disbursed, i.e., post-withdrawal or post-grant of continuous enrollment status disbursements). If the amount earned is less than the amount disbursed, the difference is returned to the Title IV programs. If the amount earned is greater than the amount disbursed, the difference is treated as a late disbursement in accordance with the federal rules for late disbursements.

A student who completes all the requirements for graduation from his or her academic program before completing the payment period is not considered to have withdrawn.

In a program offered in modules, a student is not considered to have withdrawn if the student successfully completes one module that includes 49 percent or more of the number of days in the payment period, excluding scheduled breaks of five or more consecutive days and all days between modules.

In a program offered in modules, a student is not considered to have withdrawn if the student successfully completes a combination of modules that when combined contain 49 percent or more of the number of days in the payment period, excluding scheduled breaks of five or more consecutive days and all days between modules.

In a program offered in modules, a student is not considered to have withdrawn if the student successfully completes coursework equal to or greater than the coursework required for definition of a half-time student for the payment period.

Institutional charges (costs) include tuition and required fees, on-campus room rental, and on-campus dining plan. The federal Return of Title IV

Funds policy requires that federal aid be considered as first applied toward institutional charges, regardless of other non-federal aid received.

Unearned funds, up to the amount of total institutional charges multiplied by the unearned percentage of funds, are returned by the University; the return of Title IV Program funds may be rounded to the nearest dollar for each aid source. The student returns any portion of unearned funds not returned by the University. A student (or parent for PLUS loans) repays the calculated amount attributable to a Title IV loan program according to the loan's terms. If repayment of grant funds by the student is required, only 50% of the unearned amount must be repaid. A student repays a Title IV grant program subject to repayment arrangements satisfactory to the University or the Secretary of Education's overpayment collection procedures.

Funds returned are credited in the following order: Federal Direct Unsubsidized Loans, Federal Direct Subsidized Loans, Federal Direct PLUS Loans, Federal Pell Grants, Federal Iraq & Afghanistan Service Grants, Federal Supplemental Educational Opportunity Grants, Federal Teacher Education Assistance for College & Higher Education Grants, and other Title IV funds for which a return of funds is required.

The Office of Student Financial Aid calculates the amount of unearned Title IV grant and loan funds, and has available examples of the application of this federal policy and a copy of the relevant Code of Federal Regulations section (CFR 668.22).

## Return of Non-Title IV Program Funds Policy

A student who drops to less-than-full-time enrollment within the timeframe to drop courses as published in the academic calendar loses eligibility for all institutional aid for the entire term. For financial aid purposes, full-time enrollment is defined as twelve or more hours each semester.

The Office of Student Financial Aid calculates the amount of non-Title IV program funds to be returned to the various programs when a recipient withdraws or is granted continuous enrollment status. The return of non-Title IV Program funds may be rounded to the nearest dollar for each aid source.

Return of funds to various state and private aid programs is determined by specific program rules. If rules allow, state and private loan funds are returned before gift funds. State and private funds may be retained in amounts necessary to satisfy the student's remaining University charges or adjusted need, whichever is larger.

Awards from institutional funds for which all disbursement requirements have not been met by the student prior to withdrawal or change to continuous enrollment status are canceled and no disbursements are made.

Upon withdrawal or change to continuous enrollment status, an adjusted estimated cost of attendance (COA) is established in two parts. For an on-campus student, the first part equals the adjusted tuition and room rental charges (not to exceed the standard allowance, and not including charges that result from a student remaining in his/her room after the date of withdrawal) and the standard allowance for books and supplies; the second part equals pro-rated estimates (by weeks) of dining, transportation, and personal living expenses. For an off-campus student, the first part equals the adjusted tuition charge and the standard allowance for books and supplies; the second part equals pro-rated



estimates (by weeks) of room, dining, transportation, and personal living expenses.

If the adjusted COA is greater than the full semester expected family contribution (EFC), the student retains institutional aid (in the same mix of initially-awarded gift and loan), up to the amount required to meet the adjusted need and not exceeding the initial amount(s). **The EFC represents a best estimate of a family's capacity (relative to other families) to absorb, over time, the costs of education. For a student withdrawing or changing to continuous enrollment status, the full EFC is expected to support educational expenses incurred, prior to any support from aid programs.** For purposes of this calculation, a student who receives only merit-based institutional gift is considered to have an EFC equal to the full semester COA minus the amount of that gift. The order in which each institutional fund is reduced is determined on a case-by-case basis by the aid office, with the guiding principle being the return of funds to University accounts most likely to be needed by other students.

**A student who withdraws or changes to continuous enrollment status after receiving a cash disbursement must repay Wake Forest scholarship funds up to the amount of Title IV funds that the University must return.**

Fines and other incidental charges not included in the financial aid COA are solely the responsibility of the student. Required returns of funds to all financial aid programs are made prior to the refund to the student.

## Housing

Wake Forest has a six-semester (typically three-year) residency requirement. Students are required to live in campus housing their first three years unless they live with a parent or guardian in the Winston-Salem area. The University is also committed to housing students who request to live on-campus after fulfilling the residency requirement. Students who study abroad during the fall or spring semesters are given credit for that time toward their residency requirement; summer sessions do NOT count toward residency requirements.

Transfer students are expected to fulfill the six-semester residency requirement. However, transfer students who have lived on campus at another institution are given credit for that time toward their residency requirement.

The University's commitment to providing eight semesters of on-campus housing is for residential students in good standing who pay their tuition deposit by the published deadline each semester. Additionally, students who successfully petition to live off campus or have fulfilled their residency requirement and do not select housing during the room selection process will no longer be given priority for housing on campus.

For more information about the Office of Residence Life and Housing or their processes and policies, please visit their website (<https://rlh.wfu.edu>).

## Off-Campus Housing

**Petition to be Released.** Students requesting to be released from the University's residency requirement must petition for approval to reside off-campus. Additionally, students who wish to change their residency status (on-campus to off-campus day) to live with parents at their permanent home in the Winston-Salem area may petition to be released.

**Exceptions to the residency requirement for reasons other than living at home in the Winston-Salem area are typically very rare and only granted for individually compelling circumstances.** If your petition to move off-campus is granted, you are reclassified as a non-resident student and

will no longer be eligible for any part of guaranteed campus housing (including Greek Block housing). All students who are released and remain enrolled as full-time students must register their off-campus address with the Office of Residence Life and Housing.

Students on named scholarships are reminded they must maintain four years of campus residency. Exceptions are rare and may be granted at the discretion of the Scholarship Committee.

Students who are discovered to have moved off-campus without receiving prior permission will, minimally, have their class registration held (or possibly canceled), risk financial penalties, and be required to submit an application for review. If the application is approved, the student will receive a warning similar to those students who have had a law enforcement officer visit their residence (see Off-Campus Conduct (<https://rlh.wfu.edu/housing/off-campus-living/student-resources/off-campus-conduct/>)). If the application is denied, the student will need to apply to return to campus housing (based on space availability).

For more information on the petition process and other policies related to living off-campus, please visit the Office of Residence Life and Housing's Off-Campus Housing page (<https://rlh.wfu.edu/housing/off-campus-living/student-resources/policies/>).

**Off-Campus Address Registration.** Eligible students choosing to live off-campus must register their residential address, thereby declaring their compliance with the University's off-campus housing policy. Enrollment and registration for classes each semester are conditioned upon verification of compliance by the Office of Residence Life and Housing. All students living off-campus, including those living in apartment complexes, will be required to provide addresses.

City of Winston-Salem ordinances state that there shall be no more than four (4) individuals that are not related by blood, adoption, or marriage living together in a single-family dwelling unit. The Office of Residence Life and Housing will monitor the number of students that are granted permission to reside in residential areas zoned for these units. The office will, at no time, grant permission to any individual(s) to exceed the number, nor is there an appeal process to do so.

Students currently residing, or desiring to move, off-campus must register their address each year to comply with the policy and to ensure individual records are updated. Though a student has registered to reside off-campus, the application submitted is purely a request, and it should not be inferred that approval has been received. Students whose applications are approved will receive written notification. Once a student has been approved to reside off-campus, the local address provided is valid for one academic year only. Additionally, if a student would like to change location of residency, they must re-register with their new address and check to make sure that the location of residency is approved before changing locations.

Continuing enrolled students who do not re-register to reside off-campus (prior to the expiration of the original approved local address) will have a hold placed on future class registration processes (or may risk having their registration canceled) until approval is received.

Students who previously lost, or lose during the current academic term, campus housing due to judicial sanctions also need to register to reside off-campus. Other populations of students who need to register upon acceptance to the University include transfer or any student classified with non-resident student status.



## Advising and Registration

### Orientation and Advising

For new students in the College, a required orientation program and a required meeting with the student's lower-division academic adviser precede the beginning of classes and the drop/add period. Some required orientation programs also occur during fall semester of the first year. The lower-division academic adviser provides guidance during and between registration periods until the student declares a major.

During orientation, advisers meet with students both individually and in small groups. A meeting with the adviser is required before all subsequent registration periods. Students are encouraged to take the initiative in arranging additional meetings at any time to seek advice or other assistance. The lower-division adviser works with the student until the student declares a major, typically during the fourth semester. Then, an adviser in the student's major department is assigned.

### Registration

Registration for continuing students in the College and the School of Business undergraduate program typically begins in March for the fall and the summer terms, and in October for the spring term. Consultation with the academic adviser must be completed before registration. New students entering in the fall term register during the prior summer. Readmitted students and those approved for resumption of full- or part-time status, once officially advised, may work with the Office of the University Registrar staff to enroll in classes. Students currently enrolled at the University may register for the summer sessions classes. All tuition and fees must be paid in full to the Office of Financial and Accounting Services by the announced deadlines.

### Classification

Classification of students by class standing and as full-time or part-time is calculated in terms of semester hours earned.

The requirements for classification are as follows:

- *Sophomore—completion of no fewer than 25 hours toward a degree;*
- *Junior—completion of no fewer than 55 hours toward a degree;*
- *Senior—completion of no fewer than 87 hours toward a degree.*

### Course Load

Most courses in the College and the School of Business undergraduate program have a value of 3 credit hours, but they may vary from one-half hour to five hours. The normal load for a full-time undergraduate student is 15 credit hours per semester. The maximum credit hours allowed in the College without permission is 17, and the maximum allowed in the School of Business is 18. A student who feels that he or she has valid and compelling reasons to register for more than the maximum hours in a semester must seek permission starting each semester after self-service registration has opened for all students (see academic services calendar (<https://registrar.wfu.edu/calendars/>) for exact date). Only if the adviser, the appropriate staff of the Office of Academic Advising, and the Committee on Academic Affairs agree that the proposed course load is in the best interest of the student will permission be granted. Non-business or non-accounting majors wishing to take courses in the School of Business must have met the specific courses' prerequisites and have permission of the instructor. Enrollment in the course is subject to space availability.

Twelve hours per semester constitute minimum full-time enrollment for undergraduates at the University. Recipients of Wake Forest scholarships and loans, as well as some types of federal aid, must be enrolled for at least 12 hours. Recipients of veterans' benefits, grants from state government, and other governmental aid must meet the guidelines of the appropriate agencies.

### Part-time Students

A student may not register for part-time status (i.e., fewer than 12 hours in a single semester) without specific permission from the Office of Academic Advising by the last day to add a class. Students enrolled on a part-time basis are not eligible for the Dean's List Approval for part-time status requires that students pay for such work on a per hour basis. Petitions for part-time status after the last day to add a class will be denied, except in the case of special circumstances, and the student will be required to pay full tuition. Part-time students may be ineligible for campus housing unless an exception is made by the Office of Residence Life and Housing. For information regarding the consequences of part-time status on tuition, housing, or financial aid, students should visit the offices of Student Financial Services, Student Financial Aid, and Residence Life and Housing.

### Summer Full-time Status Policy

A Wake Forest University undergraduate student registered for one (1) or more credit hours at Wake Forest University during the summer is considered to be a full-time student during the summer part-of-term in which they are enrolled (Session I, Session II, or Full Summer).

Important Note: The above definition of full-time status during the summer session may not be coincident with requirements for Federal financial aid eligibility in the summer. For more information, contact Financial Aid (<https://financialaid.wfu.edu/>) (email ([financial-aid@wfu.edu](mailto:financial-aid@wfu.edu)); 336-758-5154)

### Class Attendance

The responsibility for class attendance lies with the student, who is expected to attend classes regularly and punctually. A vital aspect of the residential college experience is class attendance; its value cannot be measured by testing procedures alone. Students are considered sufficiently mature to appreciate the necessity of regular attendance, to accept this personal responsibility, to demonstrate the self-discipline essential for such performance, and to recognize and accept the consequences of failure to attend. Students who cause their work or that of the class to suffer because of absence or lateness may be referred by the instructor to the appropriate dean in the Office of Academic Advising for suitable action. Any student who does not attend classes regularly or who demonstrates other evidence of academic irresponsibility is subject to such disciplinary action as the Committee on Academic Affairs may prescribe, including immediate suspension from the College or from the School of Business.

Students who miss class while acting as duly authorized representatives of the University at events and times approved by the appropriate dean are considered excused. The undergraduate faculties are sensitive to the religious practices of members of the student body. At the beginning of the semester, students who will be absent from class for religious observances should confer with the instructor(s) about the date of the absence. The disposition of missed assignments will be arranged between instructor and student. Students anticipating many excused absences should consult the instructor before enrolling in classes in which attendance and class participation count heavily toward the final

grade. For policies pertaining to absences resulting from illness or other extenuating circumstances please see the statement under Student Health Service.

## Auditing Courses

When space is available after the registration of degree-seeking students, others may request permission of the instructor to enter a class as auditors. No additional charge is made to full-time students in the College or the School of Business; for others the fee is \$75 per hour. Permission of the instructor is required. An auditor is subject to attendance regulations and to other conditions imposed by the instructor.

Although an auditor receives no credit, a notation of audit is made on the final grade report and entered on the academic record of students who have met the instructor's requirements. An audit may not be changed to a credit course or a credit course changed to an audit after the first official day of classes for each semester or term.

## Dropping a Course

Students may drop full term courses through the 26th class day. The last day in each term for dropping a class is listed on the Academic Calendar (<https://registrar.wfu.edu/calendars/>). A student who wishes to drop any course on or before this date must follow the procedure prescribed by the registrar.

## Drop/Add of Partial-Semester Courses

Students adding or dropping classes lasting for shorter durations than the full semester and/or that begin after the opening of the semester may add or drop those classes any time prior to the first class meeting, but instructor's permission may be required. The add and drop period for such classes is proportionate to the duration of the course. Consult with the Academic Services Calendar (<https://registrar.wfu.edu/calendars/>) or the Office of the University Registrar for the enforced add and drop dates.

## Course Withdrawal

Students may withdraw from one or more full term courses from the 27th class day until five days after midterm grades are due. Students may withdraw from one or more half term courses from the 14th instructional day until the 22nd instructional day of each respective half of term. Intentions of course withdrawal (see details below) are due by 5pm on the respective last day for withdrawal. The last day in each term for withdrawing from a course is listed on the Academic Services Calendar (<https://registrar.wfu.edu/calendars/>).

A "W" grade will be recorded on a student's transcript for any course withdrawal during this period. In order for a course withdrawal to be processed, a student must contact the Office of Academic Advising.

The student must consult with his or her course instructor and faculty adviser. The instructor and faculty advisor must indicate that consultation has occurred, not that they necessarily approve of the student's decision. Once the Office of Academic Advising has received the required information, the Office of the University Registrar will process the course withdrawal.

## Independent Study, Individual Study, Directed Reading and Internships

Such work is ordinarily reserved for junior and senior students in the undergraduate schools. Any student requesting approval for such a course must possess a cumulative grade point average of at least 2.0 in

Wake Forest courses. All such course requests must be approved by the appropriate department. The academic requirements must be completed during the semester in which a student is enrolled.

The number of credit hours the student registers for in an independent study, individual study, directed reading, or internship course may not be changed during the add period unless approved by the sponsoring faculty member.

## Undergraduates in Graduate Courses

In exceptional circumstances, undergraduate students may enroll in Wake Forest graduate-level courses. Such students must have junior or senior status and must obtain written permission from the course instructor, the student's adviser, and the associate dean for academic advising. Typically, undergraduate students will not be allowed to take 600-level classes for credit if the related 300-level class is available; undergraduate students who wish to take a cross-listed course at the graduate level must follow the procedure described above. Graduate programs have no obligation to admit undergraduate students to their courses and do so at their own discretion.

## Examinations and Grading Examinations

Final examinations for each class are scheduled at specific periods during the six final examination days at the end of the term. All examinations are conducted in accordance with the Honor and Ethics System adopted by the student body and approved by the faculty. Students should have no more than two final exams in a 24-hour period. They should be allowed to reschedule exams in excess of two in a 24-hour period.

## Grading

For most courses carrying undergraduate credit, there are twelve final grades: A (exceptionally high achievement), A-, B+, B (superior), B-, C+, C (satisfactory), C-, D+, D, D- (passing but unsatisfactory), and F (failure).

**Incomplete Grade Designation.** "I" (incomplete) may be assigned only when a student fails to complete the work of a course because of illness or some other extenuating circumstance that is beyond the student's control. If the work recorded as "I" is not completed within thirty days after the student begins his or her next semester, the grade is automatically changed to the grade of F.

**Not Reported Grade Designation.** "NR" (Not Reported) is an administrative designation assigned by the University Registrar indicating that a faculty member has not reported a grade or grades by the reporting deadline. It is expected that the appropriate earned grade will quickly be reported. However, if the NR grade is not replaced within 45 days after the student enters his or her next semester, the NR is automatically changed to a grade of F.

**Grade Points.** Grades are assigned grade points per hour for the computation of academic averages, class standing, and eligibility for continuation, as follows:

Grade	Points
for each grade of A	4.00 points
for each grade of A-	3.67 points
for each grade of B+	3.33 points
for each grade of B	3.00 points

for each grade of B-	2.67 points
for each grade of C+	2.33 points
for each grade of C	2.00 points
for each grade of C-	1.67 points
for each grade of D+	1.33 points
for each grade of D	1.00 points
for each grade of D-	0.67 points
for each grade of F	no points
for each grade of I	no points
for each grade of NR	no points

**Pass/Fail.** To encourage students to venture into fields outside their major areas of competence and concentration, the College makes available the option, under certain conditions, of registering in courses on a pass/fail basis. The criteria for a passing grade can vary, and is established by the instructor. Courses taken under the pass/fail option yield full credit when passed but, whether passed or not, are not computed in the grade point average. The last day to change from grade mode to pass/fail is the drop date. The last day to change from pass/fail to grade mode is the Friday of the twelfth week of the semester.

A student may count no more than 18 hours taken on a pass/fail basis toward the degree. First-year students are not eligible to elect the pass/fail mode, but may enroll for courses offered only on a pass/fail basis. Second, third, and fourth-year students at Wake Forest may elect no more than 4 pass/fail hours in a given semester. Courses used to fulfill core, quantitative reasoning, cultural diversity, major, minor, or certificate program requirements may not be taken on a pass/fail basis unless they are offered only on that basis. Courses in the major(s) not used for satisfying major requirements may be taken on a pass/fail basis if the department of the major does not specify otherwise and if the student obtains the written or electronic permission of his or her academic adviser and the course instructor. Any student who is eligible to enroll for pass/fail credit must follow the prescribed enrollment process overseen by the Office of the University Registrar.

No courses in the School of Business may be taken pass/fail unless they are offered only on that basis.

## Grade Reports and Transcripts

The registrar will announce midterm and final grades in the students' WIN account, usually the day following the faculty grade reporting deadline.

Official transcripts of the permanent educational record will be issued by the registrar upon the student's request, unless there are unpaid financial obligations to the University or other unresolved issues.

Under the Family Educational Rights and Privacy Act (FERPA), the University has the right to inform parents/guardians of dependent students and certain other qualified individuals of the contents of the educational records.

## Dean's List

The Dean's List is issued after the end of the fall and spring semesters. It includes all full-time, degree-seeking students in the College and the School of Business who have a grade point average of 3.4 or better for a full-time course load in the semester and who have earned no grade below C during the semester. Students registered for part-time are not eligible for the Dean's List.

## Graduation Distinctions (Latin Honors)

**Effective for the Class of 2024 forward**, the candidate for a degree with distinction must earn a cumulative grade point average (GPA), based on all grades earned in Wake Forest courses, sufficient to place the candidate in the top 30 percent of their graduating class, with the honors awarded at the following specific percentage cut offs:

- Top 5% are to be awarded the distinction of *summa cum laude*
- Next 10% are to be awarded the distinction of *magna cum laude*
- Next 15% are to be awarded the distinction of *cum laude*

Percentages will be calculated on the basis of those degree candidates for May (gpa cut-offs for May candidates will be in-effect for the following August and December degree candidates). Cumulative GPAs will be calculated to three decimal places and truncated without rounding.

**Policy ending with the 2023 graduating class:** Graduation distinctions are determined by the grade-point average system and are based entirely on grades earned in Wake Forest courses. A degree candidate with a cumulative average of not less than 3.8 for all courses attempted is graduated with the distinction *summa cum laude*. A candidate with a cumulative average of not less than 3.6 for all courses attempted is graduated with the distinction *magna cum laude*. A candidate with a cumulative average of not less than 3.4 for all courses attempted is graduated with the distinction *cum laude*. Details are available in the Office of the University Registrar.

## Repetition of Courses

A Wake Forest course can be repeated at Wake Forest if the grade earned is C- or lower. In this case, all grades received will appear on the transcript, but the course will be counted only one time for credit. If a student fails a course previously passed, the hours originally earned will not be forfeited. For purposes of determining the cumulative grade point average, a course will be considered as attempted only once, and the grade points assigned will reflect the highest grade received. A grade of irreplaceable F received in a class as a consequence of an honor violation does not prevent a student from repeating the class, but if the repeat successfully earns credit for the class, both the repeat grade and the irreplaceable F will be included in the cumulative grade point average. Students seeking to repeat WRI 105 must petition the English department.

## Enrollment Policies and Procedures

### Continuous Enrollment Status

An undergraduate student who needs to interrupt his/her full- or part-time status for personal or medical reasons may petition for continuous enrollment status with the Office of Academic Advising. This status can be approved for one or two semesters. When students approved for continuous enrollment status wish to resume full- or part-time status, they must submit a notification to this effect to the Office of Academic Advising and any other information required by the Committee on Academic Affairs. See Resumption of Full- or Part-time Status for more details.

In the case of change to continuous enrollment status granted during an academic term for medical reasons, the student may request that no grades be recorded for that semester. Such requests require the formal support of either the Student Health Service or the University Counseling Center, and the student's standing in courses at the time of departure

may be taken into consideration. The Committee on Academic Affairs has final authority on such requests.

Residence hall keys (if applicable), mailbox keys, the Wake Forest University ID card, along with any other pertinent University property items, must be returned to the appropriate offices. The student retains active enrollment status with the University, and retains email and registration privileges, and all applicable University policies will continue to apply. *Wake Forest University's policy on Continuous Enrollment Status does not exempt any student from the requirements of the Return of Title IV Funds policy; nor does it extend federal student loan deferment benefits.*

A continuous enrollment fee will be assessed.

## Withdrawal

A student who intends to interrupt full- or part-time status for more than two semesters on a voluntary or medical basis and is not granted continuous enrollment status (see above), or any student who is suspended for academic or judicial reasons, is deemed to have withdrawn from the University.

A student who initially requests continuous enrollment status but who has been in that status for more than two semesters (or one year), is re-classified as withdrawn, will no longer have registration privileges and an email account, and must return all university property to the appropriate office(s). In addition, any student who discontinues class attendance or does not properly resume full- or part-time status, but who has not properly requested continuous enrollment status in advance, will also be deemed to have withdrawn.

A student who discontinues class attendance during an academic term from the College or the School of Business without officially applying for continuous enrollment status or withdrawal is assigned failing grades in all current courses, and is deemed to have withdrawn. All university property must be returned to the appropriate offices. Holds may be placed on the record of a student who does not return university property or those who have outstanding financial obligations to the university.

Withdrawn students do not retain email and registration privileges. Return of Title IV funds will be handled in accordance with federal law.

## Probation/Suspension

Any student who is placed on probation because of honor code or conduct code violations may be placed on such special academic probation as determined by the Committee on Academic Affairs. The Committee on Academic Affairs may at any time suspend or place on probation any student who has given evidence of academic irresponsibility, such as failing to attend class regularly, failing to complete papers, examinations, or other work on time, failure to earn more than six grade points in any semester, or failing to maintain a minimum GPA (see Requirements for Continuation).

If poor academic performance is attributable to circumstances over which the student clearly had no control (e.g., serious injury or illness), the student may, after consultation with an academic counselor or dean in the Office of Academic Advising, petition the Committee on Academic Affairs for further consideration of his or her status.

In deciding whether to permit exceptions to the foregoing eligibility requirements, the Committee on Academic Affairs will take into account such factors as convictions for violations of the College honor code

or social conduct code, violations of the law, and any other behavior demonstrating disrespect for the rights of others.

Any student convicted of violating the honor code and, as a result, suspended from the University or assigned the penalty of "activities suspension" is ineligible to represent the University in any way until the period of suspension is completed and the student is returned to good standing. Such students also may not be initiated into any fraternity or sorority during the time of the sanction.

No student suspended from Wake Forest may take coursework at another institution and have that work transferred to Wake Forest for credit.

## Requirements for Continuation

A student's academic eligibility to continue is determined by the number of hours passed and the grade point average. The number of hours passed is the sum of the hours transferred from other institutions and the hours earned in the undergraduate schools of the University. The grade point average is computed only on work attempted in the undergraduate schools of the University and excludes both non-credit and pass/fail courses.

Students are expected to make reasonable and systematic progress toward the accomplishment of their degree programs. To be eligible to continue in the College, students must maintain:

For Hours Passed	A Minimum Cumulative GPA of
fewer than 30	1.60
at least 30, fewer than 60	1.70
at least 60, fewer than 90	1.80
90 and above	1.90

Students are responsible for knowing their academic standing at all times. Any student whose GPA falls below the required minimum will have a grace period of one semester to raise the average to the required level. Students also have the option of attending summer school at Wake Forest in an effort to raise the average.

The Committee on Academic Affairs will suspend students who earn six or fewer grade points in any given semester in courses other than CNS 353; military science courses; MUS 111-MUS 129 (ensemble courses); DCE 128; and elective 100-level courses in health and exercise science. In cases where failure was due to circumstances beyond the student's control, he or she may appeal to the Committee for an exception.

Any student who is in academic difficulty is urged to seek advice and counsel from his or her academic adviser, from the Office of Academic Advising, from the Learning Assistance Center, and from the University Counseling Center.

A student who has or develops a health problem which, in the judgment of the director of the Student Health Service, creates a danger to the safety and well-being of the student or others may be required to withdraw or convert to continuous enrollment status until the problem is resolved.

## Resumption of Full- or Part-Time Status

The Committee on Academic Affairs oversees matters affecting students who have been granted continuous enrollment status. A student who has been granted continuous enrollment status for medical or psychological reasons must submit documentation from his or her physician or



therapist to either the director of the Student Health Service or the director of the University Counseling Center attesting to his or her readiness to resume a full academic program. The physician or therapist should also provide professional guidance to these directors as to the nature of the student's ongoing care once a resumption of full- or part-time status has been approved.

For students whose change to continuous enrollment status is based upon mental health needs, it will be understood that a resumption of full- or part-time status generally can be accomplished only after an appropriate recovery period. In all such instances, the student's resumption of full- or part-time status is contingent upon a statement from appropriate medical authorities that the medical condition has been sufficiently addressed so that normal study can be resumed.

Any student who has been granted continuous enrollment status and who hopes to receive transfer consideration for work done elsewhere must provide the University with a properly documented statement attesting to his or her good standing at the institution from which the transfer credit would come. (See Transfer Credit rules.) Additionally, an official copy of the student's transcript must be made available to the Office of the University Registrar.

Should a student, upon interruption of full- or part-time status, fail to comply with procedures for a change to withdrawn or continuous enrollment status, "holds" may be placed upon his or her record that will prevent consideration of readmission or resumption of full- or part-time status. Although a resumption of full- or part-time status can normally be approved (subject to medical or psychological approvals as described here), any request for resumption of full- or part-time status to the University may be denied if a student has violated any laws or regulations or has engaged in conduct or exhibited behaviors that have demonstrated a disregard for the rights of others. Notification forms required for resumption of full- or part-time status and deadlines for submission are posted on the Office of Academic Advising website (<http://advising.wfu.edu>).

Deadlines for the receipt of all necessary information are as follows:

- *Fall Resumption - August 1*
- *Spring Resumption - December 1*
- *Summer Resumption - April 15.*

## Readmission

The Committee on Academic Affairs oversees the readmission of students who have withdrawn—voluntarily, for medical or psychological reasons, due to academic or judicial suspension, or otherwise. In making a decision on whether to readmit, the Committee considers both the academic and non-academic records of the student. A student who has withdrawn from the University for medical or psychological reasons must submit documentation from his or her physician or therapist to either the director of the Student Health Service or the director of the University Counseling Center attesting to his or her readiness to resume a full academic program. The physician or therapist should also provide professional guidance to these directors as to the nature of the student's ongoing care once readmission has been approved.

Any student who has withdrawn and who hopes to receive transfer consideration for work done elsewhere must provide the University with a properly documented statement attesting to his or her good standing at the institution from which the transfer credit would come. (See Transfer

Credit rules.) Additionally, an official copy of the student's transcript must be made available to the Office of the University Registrar.

No student on judicial or academic probation or suspension from the University may take coursework at another institution and have that work transferred to the University for credit. Students whose withdrawals from the University were as the result of an honor or judicial conviction must satisfy fully any sanctions placed upon them prior to being considered for readmission.

Students who have been ineligible to continue for academic reasons must present to the Committee on Academic Affairs an intentional plan to raise their academic standing to acceptable standards. Any student who has been ineligible to continue for conduct reasons must present to the Committee of Academic Affairs a verification from the appropriate conduct office that the student is cleared to return.

Should a student, upon withdrawal or granting of continuous enrollment status, fail to comply with proper withdrawal or continuous enrollment procedures, "holds" may be placed upon his or her record that will prevent consideration of readmission or resumption of full- or part-time status until such matters are resolved.

Any request for readmission to the University may be denied if a student has violated any laws or regulations or has engaged in conduct or exhibited behaviors that have demonstrated a disregard for the rights of others. Readmission forms and deadlines are posted on the Office of Academic Advising website (<http://advising.wfu.edu>).

Deadlines for the receipt of all necessary information are as follows:

*Fall Readmission - August 1*

*Spring Readmission - December 1*

*Summer Readmission - April 15.*

## Summer Study

In addition to regular courses, a number of special summer programs for credit are described in the bulletin of the summer session.

Courses taken outside the U.S. require, in addition, prior approval from the Center for Global Programs and Studies. Students must obtain program approval and course approval through the Center for Global Programs and Studies.

## Transfer Credit

### Advanced Placement, International Baccalaureate, and CLEP

Advanced Placement and International Baccalaureate credit for college level work done in high school is available on the basis of the Advanced Placement Examination of The College Board and International Baccalaureate (IB) subject tests. Students are not allowed to exempt divisional core requirements through the Advanced Placement Examination, the College Level Examination, or the International Baccalaureate subject tests. Although students who successfully complete AP or IB exams earn credit towards the 120 hours needed for graduation, such credit courses do not satisfy the divisional requirements as the student must complete the required divisional courses while enrolled at Wake Forest. Students are permitted to take courses at Wake Forest for which they have received Advanced Placement or International

Baccalaureate credit. Students must contact the Registrar's Office in order to be allowed to do so. When this happens, students lose the AP or IB credit but the notation remains on the transcript. Once such credit has been forfeited it cannot be reinstated.

Under certain conditions, especially well-prepared applicants may be granted limited college credit through the subject tests of the College Level Examination Program (CLEP) of the Educational Testing Service. Such credit may be assigned with the approval of the department concerned or the dean of business.

## Transfer Credit

All work attempted in other colleges and universities must be reported to the Office of the University Registrar. Students wishing to receive transfer credit for work to be undertaken elsewhere must have a cumulative grade point average of no less than 2.0, must not be on academic probation or suspension of any kind from Wake Forest, and must obtain departmental approval following the prescribed process overseen by the Office of the University Registrar. For entering transfer students, credit may be accepted from accredited colleges and universities, including two-year colleges. For enrolled Wake Forest students and students readmitted to Wake Forest, transfer credit is accepted only from approved four-year institutions. For transfer hours to be accepted, the grade in any course must be C or better. Courses completed at other colleges or universities with the grade of C- or lower are not awarded transfer hours in Wake Forest. Of the 120 credit hours required for the baccalaureate, the minimum number of credit hours that must be earned in Wake Forest programs depends on whether the transferred courses were taken before or after enrolling at Wake Forest. (Refer to the Requirements for Degrees for more details.) Courses being considered for transfer that are not based on semester hour credits will not receive a higher conversion value than the value of the Wake Forest course.

After a student enrolls at Wake Forest, courses in anthropology, art, biology, chemistry, computer science, English, German, history, mathematics, philosophy, physics, Russian, or sociology cannot transfer in to satisfy divisional requirements.

Applications for transfer credit from online and distance learning courses are evaluated on an individual basis. No more than 15 credit hours earned through fully online courses may be applied toward graduation; of these, no more than eight credit hours may be transferred from another institution. It is the responsibility of the student to disclose to the Office of the University Registrar whether a class is an online or distance learning class. Undergraduate students in the College may not enroll in any online course for credit during their first two semesters at Wake Forest.

Dual enrollment courses, college level courses taken at institutions other than Wake Forest, are treated as transfer credit if the given course meets the University's standard criteria for transfer credit.



# FINANCIAL AID

*By regulation of the Board of Trustees, all financial aid must be approved by the Committee on Scholarships and Student Aid.*

Financial aid programs include institutional, state, and federal scholarship, loan, and work funds. Financial need is a factor in the awarding of most aid. The annual calculation of need, and therefore award amounts, may vary from year to year. Additional information is provided online (<http://financialaid.wfu.edu/helpful-resources/info-undergrad-aid-recipients/>). IRS Publication 970 describes the possible taxability of scholarship assistance.

## Policy on Satisfactory Academic Progress for Financial Aid Eligibility

### Federal Financial Aid

Evaluation of students' satisfactory academic progress for purposes of federal financial aid eligibility is made at the end of each term (fall, spring, summer), to determine eligibility for the following term. Evaluation is also made upon students' readmittance and/or return to active status following a period of continuous enrollment status. The Higher Education Act mandates that institutions of higher education establish minimum standards of satisfactory academic progress for students receiving federal aid.

Wake Forest University makes these minimum standards applicable to all aid programs funded by the federal government, and applicable to all coursework taken by a student that is applicable to a bachelor's degree (regardless of the timing of the student's declaration of a major or change in major), all coursework accepted or credited toward a bachelor's degree (transfer hours, Advanced Placement hours, International Baccalaureate hours, College Level Examination Program hours, etc.), and all other coursework (repeated courses, graduate-level coursework, etc.) taken at Wake Forest while enrolled as an undergraduate student. Certain federal aid programs have higher academic and/or other requirements, which are communicated to recipients. The minimum standards of satisfactory academic progress for federal aid also apply to certain state aid programs, including the Need Based Scholarship for North Carolina residents. To maintain academic eligibility for federal aid, a student must:

**Complete the requirements for a bachelor's degree within a maximum number of hours attempted of 180** (including repeated courses, transfer hours, Advanced Placement hours, International Baccalaureate hours, College Level Examination Program hours, etc.). During a semester in which a student drops courses or withdraws or begins continuous enrollment status, the maximum number of hours attempted includes those hours attempted as of the earlier of

1. the withdrawal or continuous enrollment status effective date, or
2. the last day to drop a second part-of-term course without penalty (as published in the academic calendar).

**Pass at least two-thirds of those hours attempted in the undergraduate schools of the University** (including repeated courses, transfer hours, pass/fail courses, and hours attempted as a visiting or unclassified student). Incompletes count as hours attempted, unless from a non-credit course.

Audited classes do not count as hours attempted. During a semester in which a student drops courses or withdraws, hours attempted includes those hours attempted as of the earlier of

1. the withdrawal or continuous enrollment status effective date, or
2. the last day to drop a second part-of-term course without penalty (as published in the academic calendar).

**Maintain the following minimum cumulative Wake Forest University grade point average on all graded hours attempted** in the undergraduate schools of the University (including courses with a grade of incomplete):

For Hours Attempted of	A Minimum Cumulative GPA of
fewer than 30	1.60
at least 30, fewer than 60	1.70
at least 60, fewer than 90	1.80
90 and above	1.90

The Wake Forest University grade point average calculation excludes pass/fail courses. In cases where a student repeats a course for which he or she received a grade of C- or lower, the cumulative grade point average is calculated by considering the course as attempted only once, with the grade points assigned reflecting the highest grade received. However, this provision does not apply to any course for which the student has received the grade of an irreplaceable F. During a semester in which a student drops courses or withdraws, all hours attempted in the undergraduate schools of the University includes those hours attempted as of the earlier of

1. the withdrawal or continuous enrollment effective date, or
2. the last day to drop a second part-of-term course without penalty (as published in the academic calendar).

To maintain academic eligibility for federal student aid, a student must also must avoid academic suspension by the Committee on Academic Affairs, by earning more than six grade points in any given semester as described in the "Requirements for Continuation" section of the Undergraduate Bulletin.

The policy on satisfactory academic progress applies only to the general eligibility for aid consideration. There are other federally-mandated requirements a student must meet to receive federal aid. For instance, certain federal loan programs also require either the passage of a period of time or the advancing of a grade level between annual maximum borrowing, regardless of general eligibility for aid. Other general student eligibility requirements for a student to receive federal financial aid are listed online (<https://www.ed.gov>).

A student not meeting the minimum standards of satisfactory academic progress for purposes of federal financial aid eligibility when evaluation is done at the end of each term (fall, spring, summer), is placed in financial aid warning status for the following term of enrollment. The financial aid warning status lasts for one term of enrollment, during which the student may continue to receive federal student aid funds. A student still not meeting the minimum standards after a term in financial aid warning status loses eligibility for the next term of enrollment, unless the student successfully appeals and is placed on financial aid probation, which may include the approval of an academic plan.

### Institutional Financial Aid

Any enrolled student who is meeting the satisfactory academic progress standards for federal financial aid eligibility also meets the satisfactory academic progress standard for institutionally-controlled need-based

aid. Students pursuing a first bachelor's degree in the undergraduate schools of the University are considered for institutionally-controlled aid programs. Evaluation of students' satisfactory academic progress for purposes of institutionally-controlled financial aid eligibility is made at the end of each term (fall, spring, summer), to determine eligibility for the following term. Evaluation is also made upon students' readmittance and/or return to active status following a period of continuous enrollment status. Certain institutional aid programs (including some merit-based and talent-based scholarships) have higher academic and/or other requirements that are communicated to recipients. If a student demonstrates financial need as determined by Wake Forest, as the result of losing eligibility for a merit/talent-based scholarship, (s)he then receives need-based aid programs under the same policies as other students not receiving merit/talent-based scholarships. The receipt of athletic aid is governed by NCAA rules. Institutional aid generally is not available for summer sessions.

Wake Forest University makes these minimum standards applicable to all institutionally-controlled aid programs except for certain institutional aid programs (including some merit-based and talent-based scholarships) that have higher academic and/or other requirements that are communicated to recipients; and applicable to all coursework taken by a student that is applicable to a bachelor's degree (regardless of the timing of the student's declaration of a major or change in major), all coursework accepted or credited toward a bachelor's degree (transfer hours, Advanced Placement hours, International Baccalaureate hours, College Level Examination Program hours, etc.), and all other coursework (repeated courses, graduate-level coursework, etc.) taken at Wake Forest while enrolled as an undergraduate student. To maintain academic eligibility for institutionally-controlled aid, a student must:

Complete the requirements for a bachelor's degree within a maximum number of hours attempted of 180 (including repeated courses, transfer hours, Advanced Placement hours, International Baccalaureate hours, College Level Examination Program hours, etc.). During a semester in which a student drops courses or withdraws or begins continuous enrollment status, the maximum number of hours attempted includes those hours attempted as of the earlier of

1. the withdrawal or continuous enrollment status effective date, or
2. the last day to drop a second part-of-term course without penalty (as published in the academic calendar).

Pass at least two-thirds of those hours attempted in the undergraduate schools of the University (including repeated courses, transfer hours, pass/fail courses, and hours attempted as a visiting or unclassified student). Incompletes count as hours attempted, unless from a non-credit course.

Audited classes do not count as hours attempted. During a semester in which a student drops courses or withdraws, hours attempted includes those hours attempted as of the earlier of

1. the withdrawal or continuous enrollment status effective date, or
2. the last day to drop a second part-of-term course without penalty (as published in the academic calendar).

Maintain the following minimum cumulative Wake Forest University grade point average on all hours attempted in the undergraduate schools of the University (including courses with a grade of incomplete):

For Hours Attempted of	A Minimum Cumulative GPA of
fewer than 30	1.60
at least 30, fewer than 60	1.70
at least 60, fewer than 90	1.80
90 and above	1.90

The Wake Forest University grade point average calculation excludes pass/fail courses. In cases where a student repeats a course for which he or she received a grade of C- or lower, the cumulative grade point average is calculated by considering the course as attempted only once, with the grade points assigned reflecting the highest grade received. However, this provision does not apply to any course for which the student has received the grade of an irreplaceable F. During a semester in which a student drops courses or withdraws, all hours attempted in the undergraduate schools of the University includes those hours attempted as of the earlier of

1. the withdrawal or continuous enrollment effective date, or
2. the last day to drop a second part-of-term course without penalty (as published in the academic calendar).

A student not meeting the minimum standards of satisfactory academic progress for purposes of institutional financial aid eligibility when evaluation is done at the end of each term (fall, spring, summer), is placed in financial aid warning status for the following term of enrollment. The financial aid warning status lasts for one term of enrollment, during which the student may continue to receive institutionally-controlled aid funds. A student still not meeting the minimum standards after a term in financial aid warning status loses eligibility for the next term of enrollment, unless the student successfully appeals and is placed on financial aid probation, which may include the approval of an academic plan.

## Appeal Procedure

Denial of aid under the policies for institutional and federal aid may be appealed in writing to the Committee on Scholarships and Student Aid and mailed to:

P.O. Box 7246  
Winston-Salem, NC 27109-7246

or delivered to the Office of Student Financial Aid, Reynolda Hall Room 4. A student's request must include information regarding why the student failed to maintain satisfactory academic progress, and what factors have changed that would allow him/her to demonstrate satisfactory academic progress at the next evaluation.

The Committee may grant a probationary reinstatement to any student, upon demonstration of extenuating circumstances documented in writing to the satisfaction of the Committee. Examples of extenuating circumstances and appropriate documentation include, but are not necessarily limited to the following: injury or illness of the student or immediate family members—statement from physician that injury or illness interfered with opportunity for satisfactory progress; death in family—statement of student or minister; temporary or permanent disability—statement from physician. During a probationary period, students may continue to receive aid. Reinstatement after probation can be made only after the student has received credit for the appropriate percentage of work attempted with the required cumulative grade point average.

## Scholarships

Scholarships and loans are awarded from funds provided by generous gifts to the University from individuals and organizations. A listing and descriptions of permanent scholarship and loan programs is provided online (<http://financialaid.wfu.edu/merit/university-scholarships-and-loans/>).

## Other Aid Programs

*Student employment* is possible for part-time, on-campus and off-campus work, for a recommended maximum of 20 hours per week for full-time students. Summer employment may also be available. Interested students should contact the student financial aid office. Federal funding assists Wake Forest in its job location and development activities for students.

Veterans' education benefits are administered by the Department of Veterans Affairs in the Federal Building at 251 North Main Street in Winston-Salem. Records of progress are kept by Wake Forest University on veteran and non-veteran students alike. Progress records are furnished to the students, veterans, and non-veterans alike, at the end of each scheduled school term. Additional information is provided online.

## Outside Assistance

Students must advise the financial aid office if they receive any assistance from outside organizations, including any local, state, and national scholarship and loan programs. Outside scholarship donors or the student recipient should provide official notification (copy of donor's congratulatory letter to student, copy of donor's award certificate to student, donor's check to student, etc.) of outside scholarship awards to the financial aid office, so that the outside scholarship can be processed appropriately. Outside scholarships count as student resources, becoming part of the package of financial aid. When need calculated under the federal methodology (FM need) is greater than the offered aid package, outside scholarships are allowed to meet that difference. Once the offered aid package equals FM need, any portion of outside scholarship exceeding FM need results in a reduction of need-based student loans and work-study funds. In no case may aid exceed the estimated cost of attendance.

Outside scholarship donors should include on the check the recipient's name and the term(s) for which the scholarship is intended. Checks should be payable to Wake Forest University (or co-payable to Wake Forest University and the student) and sent to:

Office of Student Financial Aid  
P.O. Box 7246  
Winston-Salem, NC 27109-7246

Checks delivered by donors to the student should be forwarded to the financial aid office. If a student has instead previously deposited outside scholarship funds into her/his personal bank account, the student should notify the financial aid office to prevent the expected outside scholarship proceeds from showing as anticipated credit against semester charges on the student's DEAC account. It is not recommended that students deposit outside scholarship funds into personal bank accounts; doing so may result in the student losing certain tax benefits. By submitting, or allowing donors to submit, checks to Wake Forest, a student gives permission for Wake Forest to write the Wake Forest University student identification number on the face of the check. If funds are not received by Wake Forest in a timely manner from an outside scholarship donor, the student becomes responsible for payment of charges previously deferred by the anticipated receipt of funds from the donor.

## SPECIAL PROGRAMS

*Students in the College are encouraged to apply to special programs, both on and off campus, which complement their abilities and interests. These include the programs described below and the special degrees, minors, and concentrations described in the courses of instruction.*

### Honors Study

For highly qualified students, a series of interdisciplinary honors courses is described under Departments/Programs (<https://bulletin.wfu.edu/undergraduate/departments-programs/>).

For students especially talented in individual areas of study, most departments in the College offer special studies leading to graduation with honors in a particular discipline. The minimum requirement is a grade point average of 3.0 in all work and 3.3 (or higher in some areas) in the major. Other course, seminar, and research requirements are determined by each department.

### Open Curriculum

For students with high motivation and strong academic preparation, the Open Curriculum provides the opportunity to follow a course of study planned within the framework of a liberal arts education, but not necessarily fulfilling all core requirements for the degree. The Committee on Interdisciplinary Majors, as the administrative body for the Open Curriculum Program, selects a limited number of students based on their previous record of achievement, high aspirations, ability in one or more areas of study, strength of self-expression, and other special talents. The course of study for the core requirements is designed by the student and his or her Open Curriculum adviser.

### Study at Salem College

For full-time students in the fall and spring semesters, Wake Forest and Salem College share a program of exchange credits for courses taken at one institution because they are not offered in the curriculum of the other. An application for the Salem/Wake Forest Exchange Credit program must be approved by the academic adviser and the University Registrar or the dean of the School of Business. Please visit the University Registrar to begin the application process. Except in courses of private instruction, there is no additional cost to the student. Grades and grade points earned at Salem College under the Exchange Credit program are evaluated as if they were earned at Wake Forest.

Courses that are in the Wake Forest curriculum generally cannot be taken at Salem through this program. In very unusual circumstances, a student may wish to seek assistance in appealing to the Committee on Academic Affairs.

### Center for Global Programs and Studies

The Center for Global Programs & Studies (GPS) advances a global campus community and cultivates global mindsets through collaborative initiatives, programs, and services for the University. Program areas include: study abroad/away, international student and scholar services, cross-cultural engagement course series, campus programs with a global learning focus, and international studies and global trade and commerce minors. A complete list of services offered by GPS can be found online (<http://global.wfu.edu>).

### Study Abroad

Students interested in studying abroad (or studying away on the Wake Washington and Wake West semester programs) should visit GPS for assistance and program information. All students planning to study abroad on a Wake Forest or an affiliate program (approved non-Wake Forest program) are required first to schedule an appointment with a study abroad advisor. All students must submit an online study abroad application. For more information visit this website (<http://studyabroad.wfu.edu>).

### Eligibility for Study Abroad

In order to be eligible for study abroad on a Wake Forest or affiliate program (approved non-Wake Forest program) students must:

1. Have completed two semesters of coursework before beginning the program unless approved by the appropriate dean in the College and the Center for Global Programs and Studies
2. Have a cumulative grade point average of 2.0 or above
3. Be in good judicial standing and not be on suspension from Wake Forest
4. Obtain approval of the program from the Center for Global Programs and Studies before applying to any affiliate program (consult a study abroad advisor for the program approval process)
5. Fulfill all required steps of the study abroad process as outlined by the Center for Global Programs and Studies
6. Attend a mandatory pre-departure orientation

Students who do not meet the above criteria will not receive credit for any coursework taken outside the U.S. Students who study abroad on affiliate programs must follow all policies on transfer credit as stated in this *Undergraduate Bulletin*.

Note that any student possessing less than a 2.0 cumulative grade point average is not eligible to receive transfer credit from an affiliate study abroad program (See the transfer credit section of this *Undergraduate Bulletin*.)

# CENTER FOR GLOBAL PROGRAMS AND STUDIES

The Center for Global Programs and Studies (GPS) advances a global campus community and cultivates global mindsets through collaborative initiatives, programs, and services for the entire University. GPS includes four units: International Student and Scholar Services, Global Campus Programs, Global Research and Assessment, and Global Abroad and Away. A complete list of programs and services offered by GPS is available here (<http://global.wfu.edu>).

## Contact Information:

The Center for Global Programs and Studies  
Reynolda Hall, Room 116  
Phone: 336-758-5938

## International Students and Scholars Services (ISSS)

International Student and Scholar Services (<https://global.wfu.edu/iss/>) provides visa processing and immigration support to international students, faculty, and staff during their time at Wake Forest and beyond. Through maintaining compliance with immigration regulations and accurate reporting to several federal government agencies, the ISSS team ensures Wake Forest can continue to host international students, faculty, and staff on campus. ISSS organizes many cultural activities and immigration information sessions throughout the year to educate campus partners, as well as provides programming to encourage engagement with the larger community. The advisors in ISSS also advocate for services that will enhance the experience of our international population on campus.

## Global Campus Programs

The Global Campus Programs (GCP) team is responsible for the planning, design, and implementation of programs focused on building a global campus community. The GCP team is both proactive and responsive to developing collaborative programming based on the needs of students, faculty, staff, and campus partners with the goal of enhancing global mindsets. Hallmark programs include: Global Village Living and Learning Community (<https://global.wfu.edu/global-campus/global-villages/>), Global Laureates Academy (<https://global.wfu.edu/global-laureates-academy/>), Cross-Cultural Engagement Program (<https://global.wfu.edu/global-abroad/cross-cultural-engagement/>), Worldwide Wake pre-orientation program (<https://global.wfu.edu/global-campus/www/>), and the WISE Conference (<https://global.wfu.edu/global-campus/wise-conference/>) for International Educators.

**Global Village:** The Global Village Living & Learning Community consists of globally-minded students from a broad spectrum of majors who reside together for a full academic year and commit to collaboratively explore a global theme through curricular and co-curricular activities. The Global Village is an intentional residential community focused on cultivating social, cultural, and intellectual development of participants and is designed to foster engagement with the broader Wake Forest community.

**Global Laureates Academy:** The Global Laureates Academy provides a focused opportunity to develop one's global competencies through participation in a series of globally themed workshops and seminars that

result in a collaborative capstone project designed to impact the Wake Forest and/or Winston-Salem community.

**Cross-Cultural Engagement Program:** The CCE Program is a series of courses available to students before, during, and after their study abroad term. CCE courses facilitate the development of skills necessary to study, live, and work effectively in cultures other than your own.

**Worldwide Wake:** Worldwide Wake is a pre-orientation program that enables globally-minded first-year students to enrich their cross-cultural awareness through a series of small group activities, interesting discussions, daily Global Challenges, and fun social events.

**WISE Conference:** The Workshop on Intercultural Skills Enhancement (WISE) is the pioneering conference focused on providing knowledge and skills to educators to help study abroad and international students develop intercultural competence and global awareness. Initiated in 2009 by a small group of WFU faculty intent on better preparing students for international experiences, WISE has grown into a global network of professionals and practitioners seeking to expand global understanding in our diverse society. WISE Conference is held annually (early February) in downtown Winston-Salem, NC.

## Global Research and Assessment

Global Research and Assessment (<https://global.wfu.edu/global-strategies/qep/assessment/>) oversees program evaluation for the four initiatives of the Wake Forest University Quality Enhancement Plan: Global AWAKEnings, Global Connections, Global Laureates Academy, and Global Village Living & Learning Community. Global Research houses the Academic and Cultural Transition (ACT) Research Team (<https://global.wfu.edu/global-outreach/act/>). Comprised of faculty across three institutions as well as WFU undergraduate international students, the ACT Research Team advances understanding and practice on international students' academic, cultural, social, and emotional adjustment to U.S. universities. To enhance faculty global competency, Global Research provides cross-cultural teaching opportunities in China (<https://global.wfu.edu/global-outreach/wfuprogram-scls/>).

## Global Abroad and Away

Global Abroad and Away (<http://studyabroad.wfu.edu/>) manages the extensive offerings of Wake Forest and Affiliate study away programs and provides advising to all students pursuing these academic opportunities. Other programs and services include:

- Study abroad/away scholarships (<http://studyabroad.wfu.edu/funding/>)
- Passport Assistance
- Community-Based Global Learning (CBGL) programs (<https://global.wfu.edu/staff/international-service/>)
- Cross-Cultural Engagement (CCE) program (<https://global.wfu.edu/global-abroad/cross-cultural-engagement/>)
- International Studies Minor coordination and support (<https://global.wfu.edu/global-campus/international-minors/>)
- Global Trade and Commerce Studies Minor coordination and support (<https://global.wfu.edu/global-campus/international-minors/global-trade-commerce-studies/>)

## Study Abroad in Affiliate Programs

Students wishing to study abroad on an affiliate program must visit the Center for Global Programs and Studies for assistance and



**procedures.** Affiliate programs are approved study abroad programs offered through program providers or other universities. GPS maintains an online database of approved Affiliate programs here (<http://studyabroad.wfu.edu>). In addition, GPS has a collection of printed materials of approved programs. All students planning to study abroad are required to meet with a study abroad advisor. GPS staff advises students regarding their program options. Students will not receive credit for participation on any unapproved study abroad program.

**Course Approval Process.** Once a student is accepted to a study abroad program, he or she must start the course approval process by scheduling an appointment with a study abroad advisor. In no case may a student undertake study abroad elsewhere without completing this process in advance to the satisfaction of GPS, the Registrar's Office, and the academic departments which oversee course credit approval. Students may not register for fewer than 12 hours or more than 17 hours on a semester study abroad program without the permission of a dean. Department chairs approve specific courses and the number of credit hours earned for those courses.

Grades for approved courses on affiliate study abroad programs will appear on the Wake Forest University transcript, but will NOT be calculated into the Wake Forest grade point average (see section on transfer credit). Students must follow the drop/add policies of the host institution. If the program does not have any relevant policies, then the Wake Forest policy is applied. If a student withdraws from a study abroad program, he or she must notify GPS, the Registrar's Office, and Student Financial Services; the rules for withdrawal, as stated in this *Undergraduate Bulletin*, also apply. For more information, consult GPS.

Students may request to have scholarship and financial aid applied toward Affiliate programs. Scholarships for study abroad are also available. Additional information is available in GPS and the Office of Student Financial Aid.

## Study Abroad/Away in Wake Forest Programs

### Austria (Vienna)

Students have the opportunity to study and live at the Flow House in the 19th District of Vienna (northwest section of the city). Each semester or summer session, a resident professor leads a group of up to 16 students and offers two courses in his or her respective disciplines. Resident professors are chosen from a wide variety of academic departments. In addition, Viennese professors offer courses in the study of German language or literature, Austrian art and architecture, business, music, or history of Austria and Central Europe. Group excursions to Central Europe enhance the learning experience as well as numerous integrative experiences within the city itself. Prior study of German language is recommended but not required. Further information may be obtained from the program director, professor Rebecca Thomas, in the Department of German & Russian.

### Chile (Santiago)

Students have the opportunity to study and live in South America on this "Across South America" program, which is offered during the spring semester. Students begin the semester in Santiago with a four week session on Chilean culture and language. Afterwards, they embark on academic excursions to Argentina, Ecuador, Peru, and Uruguay before returning to Santiago. Following the four weeks of academic travel, students complete the remainder of the semester on one of three

tracks - Primary Track, Internship Track, or Honors Track. A resident professor leads the group of students and offers two courses in his or her respective discipline. Resident professors are chosen from a variety of academic departments. While in Santiago, students experience the Chilean culture through homestays. This program offers courses in English and Spanish. Prior study of Spanish language is required for the Internship and Honors tracks. Further information may be obtained from the program director, professor Peter Siavelis, in the Department of Politics and International Affairs.

### England (Cambridge)

Wake Forest offers a semester program in Cambridge, England. The Cambridge INSTEP program, as it is called, emphasizes a close student-to-faculty teaching relationship with most classes taught in the seminar format with five to 12 students. In addition, intensive courses are offered for qualified students in the supervision format with one to four students (who meet course pre-requisites). Courses are taught by Cambridge University professors and provide a contemporary perspective on economics, business, politics, and international relations. Further information may be obtained from the Center for Global Programs and Studies.

### England (London)

Students have the opportunity to study and live at the Worrell House in the Hampstead District of London. Each semester or summer session, a resident professor leads a group of up to 14 students and offers two courses in his or her respective discipline. Resident professors are chosen from a wide variety of academic departments. In addition, British professors offer courses in the study of art, history, and theatre of London and Great Britain. Group excursions to museums and theatre performances enhance the learning experience as well as numerous integrative experiences within the city itself. Further information may be obtained from the program director, professor Mary Dalton, in the Department of Communication.

### England (London)

The London INSTEP semester program offers a cross-disciplinary approach in which central themes are examined in the areas of business, political science, international relations, and communication/media. During the spring semester of each year, participants also have the option to complete an internship for academic credit. The program emphasizes a close student-to-faculty teaching relationship common to the English system of higher education. Courses are taught by select faculty members from local universities. Further information may be obtained from the Center for Global Programs and Studies.

### England (London)

In partnership with Queen Mary University of London, one of the United Kingdom's leading research-focused higher education institutions, Wake Forest's London University Studies & Internships program provides students the exceptional opportunity to experience London in both academic and professional capacities. From Queen Mary's fully integrated Mile End campus – part of London's historic East End district – students can pursue coursework from dozens of academic departments and gain real world experience through carefully selected internship placements. Further information may be obtained from the Center for Global Programs and Studies.

### France (Dijon)

Students have the opportunity to study and live in France. Each fall semester a resident professor leads a group of students and



offers a course in French. In addition, students take courses at the University of Burgundy. Students experience French culture through homestays and excursions to locations throughout France such as Paris, Provence, and Strasbourg. A major in French is not required, but FRH 212/FRH 213/FRH 214 or its equivalent or any French course above the intermediate level is required. Further information may be obtained from the program director, professor Stephen Murphy, in the Department of Romance Languages.

### India (Delhi)

This summer abroad program focuses on the ways in which Indian cultural practices have developed into a hybridized format with elements that sustain some of the traditional components of Indian culture that have been synthesized with global cultural trends. This course examines the issues of sustainability of the cultural ecology of a specific ancient cultural system. The program is based in Delhi; however, there are excursions, including a trip to Ladakh in the Himalayan region of India, and to the "Golden Triangle" of India including the Taj Mahal. Further information may be obtained from professor Ananda Mitra in the Department of Communication.

### Italy (Venice)

Students have the opportunity to study and live at Casa Artom situated along the Grand Canal in Venice. Each semester or summer session, a resident professor leads a group of up to 20 students and offers two courses in his or her respective discipline. Resident professors are chosen from a wide variety of academic departments. In addition, Venetian professors offer courses in the study of Italian language or literature, Italian art and architecture, history, and economics to help students integrate into the local culture. Group excursions throughout Venice and in surrounding cities enhance the learning experience as well as numerous integrative experiences within the city itself. Prior study of Italian language is not required, but may be determined by the resident professor. Further information may be obtained from the program director, professor Peter Kairoff, in the Department of Music.

### Japan (Hirakata)

For students wishing to study in Japan, Wake Forest offers a fall and/or spring semester at Kansai Gaidai University. Located in Hirakata, Japan, Kansai Gaidai is situated near three of Japan's most interesting cities—Kyoto, the capital of Japan for 1,200 years; Osaka, the largest commercial city; and Nara, the ancient capital of Japan during the 6th century. Courses in a variety of disciplines including economics, political science, religious studies, sociology, history, art, and communication are offered in English. Japanese language is offered at all levels. No prior knowledge of Japanese is required. Further information may be obtained from the Center for Global Programs and Studies.

### Peru (Cuzco)

This intensive, field-based program provides hands-on experiences in the wide range of environments Peru has to offer. Students take BIO 349 and/or JOU 370. Course work consists of daily lectures, readings, hands-on field activities, a full range of journalistic interviewing, reporting and writing skills and techniques, and a final project. At all sites, students collect, analyze, and identify a wide variety of plant species, and evaluate the possible stories and blog posts that emerge from interviews and observations. Journalistic reporting is the critical means by which decision makers and the public get information about environmental issues. Further information may be obtained from professor Miles Silman in the Department of Biology and/or professor of journalism Justin Catanoso in the Department of English.

### Spain (Barcelona)

This semester program is specifically designed for business, economics, entrepreneurship, and global trade and commerce students, but it also appeals to those students interested in political science and international studies in general. Based at the Autonomous University of Barcelona's Sant Pau Campus (UAB), the program places students in the heart of this city of 1.6 million inhabitants. A Wake Forest on-site administrator oversees program administration and Wake Forest's academic center. Courses are primarily taught in English, with no prior knowledge of Spanish required. Students are required to enroll in one course taught in Spanish or Catalan. Housing options include apartments, student residence halls or homestays. Further information may be obtained from the Center for Global Programs and Studies.

### Spain (Salamanca)

Students have the opportunity to study and live in Spain. Each semester a resident professor leads a group of students and offers a course in Spanish. In addition, students take courses at the University of Salamanca. Students experience the Spanish culture through homestays, or dorms at the University of Salamanca and excursions to locations throughout Spain such as Granada, Madrid, and Seville. Internship opportunities are available. A major in Spanish is not required, but one course beyond SPA 212 is required. Further information may be obtained from the program director, professor Kathryn Mayers, in the Department of Spanish and Italian.

### Spain (Salamanca)—Internships

Students interested in experiencing the Spanish work environment are encouraged to apply for the Salamanca Summer Internship program. Internships are available during both summer sessions in a wide range of fields (medical, business, teaching, translation/interpretation) and may carry 1.5 or 3 hour credits. Students enroll in an internship course and have the option of taking a conversation course or literature course while in Salamanca. Students live with Spanish families or in dorms at the University of Salamanca. Further information may be obtained from professor Kathryn Mayers in the Department of Spanish and Italian.

### Spain (Salamanca)—Neuroscience

Each spring semester, the Wake Forest Salamanca Neuroscience Program offers STEM students the opportunity to study science at one of the leading neuroscience institutes in Europe. Students on the program will be enrolled at the Neuroscience Institute at the University of Salamanca (INCyL), a site of cutting-edge research in areas ranging from Parkinson's Disease to regenerative medicine to cell therapy. The University itself has been designated an International University of Excellence in the Teaching of the Biological Sciences and of Spanish as a Second Language. Prerequisites to the program are BIO 150, BIO 214, CHM 223, or CHM 280, or permission of instructor, and one semester of college-level Spanish. All science courses are taught in English. Further information may be obtained from professor Kathryn Mayers in the Department of Spanish and Italian.

### United States (San Francisco, C.A.)

Each spring, the Wake West program allows students to learn, study, and engage in internships in the innovative and dynamic culture of the San Francisco Bay Area (SFBA). Throughout the semester, students take part in a four-day-per-week internship and participate in program-provided excursions to local businesses and start-ups. The program also organizes networking and professional development events with WFU SFBA alumni, parent mentors, and guest speakers from local universities. Students earn 9 credits for the coursework taught and supervised by

the program director and 3 credits for a course taught by local faculty. Further information may be obtained from the program director, professor Rebecca Gill in the Department of Communication and the Center for Entrepreneurship.

### **United States (Washington, D.C.)**

Each fall and spring, the Wake Washington program allows students to study and intern in the nation's capital. The WFU Resident Professor teaches two courses in his/her field, with a focus on taking advantage of Washington D.C.'s resources to enhance the coursework. In addition, students engage in a four-day-per-week internship. Students are responsible for writing a research paper on a topic related to their internship and for participating in weekly meetings which include opportunities to hear prominent speakers. Alumni and parent mentors are available to students throughout the semester. Students earn 6 credits for the coursework taught by the resident professor and 6 credits for the internship experience and related obligations. Further information may be obtained from the program director, professor Katy Harriger in the Department of Politics and International Affairs.

### **Additional Summer Programs**

Each summer, the University offers a variety of summer study abroad courses led by Wake Forest faculty. There are many types of summer programs including language immersion, field research, specialized academic topics and internships. Wake Forest summer programs are offered throughout Europe, Africa, Asia, and Latin America. Detailed information on summer programs is available on the Center for Global Programs and Studies website (<http://studyabroad.wfu.edu>). Further information may be obtained from the Center for Global Programs and Studies.

# REQUIREMENTS FOR DEGREES

## Degrees Offered

The Wake Forest College of Arts and Sciences offers undergraduate programs leading to the bachelor of arts and bachelor of science degrees.

The bachelor of arts degree is conferred with a major in African American studies, anthropology, art history, biology, chemistry, Chinese language and culture, classical languages, classical studies, communication, computer science, economics, English, environment and sustainability studies, environmental science, French studies, German, German studies, Greek, history, Japanese studies, Latin, mathematics, mathematical statistics, music performance, music in liberal arts, philosophy, physics, politics and international affairs, psychology, religious studies, Russian, sociology, Spanish, studio art, theatre, or women's, gender, and sexuality studies.

The bachelor of science degree is conferred with a major in applied mathematics, biology, biochemistry and molecular biology, biophysics, chemistry, computer science, engineering, health and exercise science, mathematical economics, mathematics, mathematical statistics, or physics.

The bachelor of arts degree is available with a major in elementary education. The bachelor of science degree may be conferred in combined curricula in engineering and medical technology.

The School of Business offers undergraduate programs leading to the bachelor of science degree with a major in accountancy, business and enterprise management, finance, or mathematical business.

A student may receive only one bachelor's degree (either the bachelor of arts or the bachelor of science) from Wake Forest.

## General Requirements

The basic and divisional course requirements leave students in the College considerable flexibility in planning their courses of study. Students who entered under the bulletins of previous years may make use of new alternative basic and divisional courses announced in this bulletin while still following their original contract for the required totals thereof. Except for HES 100, only courses of 3 or more semester hours count towards satisfying basic and divisional requirements.

All students must complete:

1. the core requirements (unless accepted for the Open Curriculum),
2. a course of study approved by the department or departments of the major, and
3. elective courses, for a total of 120 hours.

In general, no more than 12 hours toward graduation may be earned from among all of the following courses: MUS 111-MUS 121 and MUS 128-MUS 129 (ensemble courses); DCE 128; and elective 100-level courses in health and exercise science. However, majors in music in liberal arts and music performance may count up to 16 hours in these courses toward graduation. A cross-listed course may be taken one time for hours toward graduation, unless otherwise specified by the course description, and no more than six hours in LIB courses may count toward graduation.

All students must earn a minimum cumulative 2.0 grade point average in Wake Forest College and the School of Business. Once enrolled at Wake Forest, a student may subsequently count, at most, 30 hours of credit from sources other than Wake Forest programs toward the graduation requirement of 120 hours. Students who transfer into Wake Forest must subsequently earn at least 60 hours in Wake Forest programs. Except for combined degree curricula, the work of the senior year must consist of courses in Wake Forest programs. Any exceptions must be approved by the Committee on Academic Affairs. No more than 15 credit hours earned through fully online courses may be applied towards graduation; of these no more than 8 credit hours may be transferred from another institution.

Transfer credits will not be used in calculating a student's GPA. This includes affiliate study abroad programs (approved non-Wake Forest programs). However, work from other institutions accepted in transfer, along with the grade(s) earned, will be recorded on the transcript. Graduation distinctions will be based solely on the Wake Forest GPA.

A student graduates under the requirements of the bulletin of the year in which he or she enters. However, when a student declares a major or a minor, the requirements for the major or minor that are in effect at the time of declaration will apply. Such requirements might not be congruent with those stated in a given bulletin. Newly admitted majors to the School of Business, will be assigned a catalog year that will reflect their first full academic year as a major in the School. If coursework is not completed within 6 years of entrance, the student must fulfill the requirements for the class in which he or she graduates.

The University issues degrees in August, December, and May. All requirements must be completed and certified before a student will be issued a degree and/or can participate in the commencement exercises. However, students may petition for permission to participate in the commencement exercises if all three of the following conditions are met:

1. The student will have completed at least 112 hours by the end of the spring semester preceding commencement.
2. The student will have a minimum 2.0 cumulative GPA and a minimum 2.0 GPA in the major(s).
3. The student has no outstanding judicial sanctions (unpaid fines, owed community service hours, etc.).

Commencement is a celebration of graduation, but not required for graduation. Participation in commencement is at the discretion of the appropriate Dean. The University reserves the right to refuse participation in commencement in certain circumstances (e.g., unfulfilled sanctions for judicial or honor violations).

No further entries or alterations may be made toward the undergraduate degree once a student has been graduated.

To become a degree candidate, a student must submit an online application for graduation that will prompt a review of the student's academic record to assure that all degree requirements have been met. The application for graduation is available online in WIN. Students who are not enrolled in the term prior to their desired graduation date must contact the Office of the University Registrar before the application deadline. The application deadlines for each graduation date are as follows:

- December graduation: September 1
- May graduation: October 1
- August graduation: May 30

The University conducts one Commencement Ceremony each year in May. Students who have earned their degree the previous August or December are invited to participate in the May ceremony following their graduation.

## Core Requirements (Basic and Divisional combined)

The core requirements are intended to introduce the student to various fields of knowledge and to lay the foundation for concentration in a major subject and related fields during the junior and senior years. For these reasons, as many of the requirements as feasible should be taken in the first two years.

## Basic Requirements

All students must complete four required basic courses (unless exempted through procedures established by the departments concerned):

- FYS 100 (first-year seminar) - to be taken during first year
- WRI 111 (writing seminar) - to be taken during first year
- **One 200-level foreign language course**
- **Health and Exercise Science 100**

## Foreign Language Placements

All students new to Wake Forest who have studied a foreign language in high school must complete a foreign language placement test in the language(s) studied. Students will not receive credit for a class at a lower level than the level of their placement on the placement exam, unless they:

1. *register for the class in which they placed;*
2. *attend a few class meetings;*
3. *consult with their professor; and*
4. *successfully appeal their placement to the language placement appeals officers of the department and be reassigned to a lower level course.*

Students may satisfy the requirement with a foreign language they have not previously studied, and may start at the beginning level (111 or 101, depending on the language) offered at Wake Forest.

Students whose primary language (the language of instruction in the student's prior schooling) is other than English are exempt from the basic requirement in foreign language.

Students whose schooling has been in English but who are fluent in a language not taught at Wake Forest must present the equivalent of a 200-level college course or proficiency in reading and writing in the second language to be exempt from the requirement. Such students should contact the Office of Undergraduate Advising. The Associate Dean for Academic Advising will refer each case to a person qualified to make the appropriate determination, if possible. If the second language is taught at Wake Forest, the relevant department decides whether the student may complete the requirement in that language or may be regarded as having fulfilled the requirement already. Elective courses in the language or literature of a student's heritage or country of origin are at the discretion of the department offering the course.

## Divisional Requirements

All students must complete courses in each of the five divisions of the undergraduate curriculum (unless exempted through procedures established by the departments concerned or by participation in the Open

Curriculum). Together with the basic requirements these courses form the core of Wake Forest's undergraduate liberal arts education.

Division	Departments	Number of Courses Required
I: Humanities	History; Philosophy; Study of Religions; Women's, Gender, and Sexuality Studies	2
II: Literatures	<b>Literatures Written in English</b> (English Department) <b>In English Translation</b> (Classical Languages, East Asian Languages and Cultures, French Studies, German and Russian, Spanish and Italian, and the Program in Humanities)	1
III: Fine Arts	Art, Music, Theatre and Dance	1
IV: Social Sciences	Anthropology, Communication, Economics, Education, Politics and International Affairs, Psychology, Sociology	2
V: Math and Natural Sciences	Biology, Chemistry, Computer Science, Mathematics and Statistics, Physics	2

Students are not allowed to exempt divisional core requirements through the Advanced Placement Examination, the College Level Examination Program or the International Baccalaureate Program, although students who complete AP or IB courses and present qualifying exam scores earn credit towards the 120 hours needed for graduation. Departments choose which courses will satisfy divisional requirements. Courses satisfying a divisional requirement are designated (D) after their descriptions in this bulletin. Courses without the (D) designation do not satisfy a divisional requirement.

## Special Restrictions

- In divisions requiring more than one course, students may not choose two courses from within the same department.
- One course cannot satisfy the requirements of two divisions. A cross-listed course satisfies a requirement in one division only.
- Language courses at the 200-level do not fulfill the Division II literature requirement.

## Additional Requirements

To prepare students for the demands of technology and globalization, Wake Forest guides undergraduate course selections with two further requirements:

**Cultural Diversity Requirement.** All students must complete at least one course that educates them regarding cultural diversity. This course may be taken at the basic, divisional, or major/minor level, or as an elective.

Courses qualified to meet this requirement are designated (CD) after their descriptions in this bulletin.

**Quantitative Reasoning Requirement.** All students must complete at least one course that requires quantitative reasoning, either as a qualifying course in Division V, as an elective, or as a major or minor course requirement. All courses meeting the requirement are designated (QR) after their descriptions in this bulletin.

## Requirement in Health and Exercise Science

Students must complete HES 100 before beginning additional health and exercise science elective courses, and in any case, before the end of the second year.

## Majors and Minors

### Declaring a Major

Students may declare a major after completing 40 hours. Most students declare a major in the spring of their sophomore year. Students declare a major through a procedure established between the academic departments and the Office of the University Registrar. Information about this process is distributed prior to the designated declaration period.

If the student is accepted into the major, the department provides an adviser who assists the student in planning a course of study for the junior and senior years. A department that rejects a student as a major must notify the Office of the University Registrar and file a written statement indicating the reason(s) for the rejection with the Dean of the College.

Students who need to delay the declaration due to insufficient earned hours or other circumstances should consult the Office of the University Registrar.

A student wishing to major in accountancy, business and enterprise management, finance, mathematical business, or the master of science in accountancy should apply to the School of Business. (See the School of Business requirements in this Bulletin.)

The undergraduate schools try to provide ample space in the various major fields to accommodate the interests of students. It must be understood, however, that the undergraduate schools cannot guarantee the availability of space in a given major field or a given course, since the preferences of students change and there are limits to both faculty and facilities.

After the initial declaration, a student may not change from one major to another without the written approval of the departments concerned. The student's course of study for the junior and senior years includes the minimum requirements for the departmental major, with other courses selected by the student and approved by the adviser. At least half of the major must be completed at Wake Forest University.

**Please Note.** For credit in the major, courses taken in many programs of study abroad are not automatically equivalent to courses completed at Wake Forest. If a student wishes to take more than half of his or her courses for the major in study abroad programs, he or she must gain prior approval from the chair of the department. Students should check the Undergraduate Bulletin for additional departmental requirements for the

major. Majors are listed alphabetically under Courses of Instruction in this bulletin.

**The following majors are recognized:**

*accountancy • African American studies • applied mathematics • anthropology • art history • biology • biochemistry and molecular biology • biophysics • business and enterprise management • chemistry • Chinese language and culture • classical languages • classical studies • communication • computer science • economics • education • engineering • English • environment and sustainability studies • environmental science • finance • French studies • German • German studies • Greek • health and exercise science • history • the interdisciplinary major • Japanese language and culture • Latin • mathematical business • mathematical economics • mathematical statistics • mathematics • music in liberal arts • music performance • philosophy • physics • politics and international affairs • psychology • religious studies • Russian • sociology • Spanish • studio art • theatre • women's, gender, and sexuality studies*

### Maximum Number of Courses in a Department

Within the College, a maximum of 50 hours in a department or major is allowed to count towards the 120 hours required for graduation. Additional hours within a department or major may be taken, but will not count towards the total 120 hours required for graduation. All courses taken within a major or minor department count toward the major or minor GPA. For a student majoring in a department with two or more majors, 6 additional hours in the department but outside the student's major are also allowed.

These stipulations exclude required related courses from other departments. For students majoring in English, WRI 111 is excluded. For students majoring in a foreign language, elementary courses in that language are also excluded. These limits may be exceeded in unusual circumstances only by action of the Committee on Academic Affairs.

### Options for Meeting Major Requirements

To satisfy graduation requirements, a student must select one, and only one, of the following options, which will receive official recognition on the student's permanent record:

1. A single major
2. A single major and a minor
3. A single major and a double minor
4. A single major and a triple minor
5. A double major
6. A double major and a minor

In order to qualify for options four or six, students must offer a minimum of 135 hours for graduation.

*In addition to these options, a student may complete the requirements of one or more foreign area studies programs and/or any of the Romance languages certificates.*

### Double Majors

A student may major in two departments in the College with the written permission of the chair of each of the departments and on condition that the student meets all requirements for the major in both departments. A student may not use the same course to meet requirements in both of the



majors. The student must designate one of the two fields as the primary major, which appears first on the student's record and determines the degree to be awarded. Only one undergraduate degree will be awarded, even if the student completes two majors.

## Minors

A minor is not required. Students may declare a minor only after declaring at least one major. According to the guidelines listed under Options for Meeting Major Requirements, students choosing either a single or a double major may also choose one or more minors from among the following or from the listing of interdisciplinary minors:

*anthropology • Arabic • art history • biology • chemistry • Chinese language and culture • classical studies • communication • computer science • creative writing • dance • economics • English • French studies • German • German studies • Greek • health and human services • history • Italian language and culture • Japanese language and culture • journalism • Latin • mathematics • music • philosophy • physics • politics and international affairs • psychology • religious studies • Russian • schools, education, and society • secondary education • sociology • Spanish • statistics • studio art • theatre*

For details of the various minors, see the appropriate departmental headings in the section of this bulletin that lists course offerings.

## Interdisciplinary Major

Highly qualified students may design an interdisciplinary major, focused on a topic not available as a regular major. The interdisciplinary major consists of courses offered by two or more departments, for a minimum of 42 hours. Students submit a proposal outlining the nature of the major, a list of courses to be included, evidence of a comparable major at another university, if available, and letters from at least two relevant faculty members supporting the proposal, one of whom must agree to be the student's primary adviser. The interdisciplinary major may be declared after the student completes 40 hours, however planning for the major should begin as early as possible. A second major may not be declared. A minor may be declared; however, courses used in the interdisciplinary major may not also meet requirements in the minor. Students are required to complete an independent senior project, approved and reviewed by the adviser and readers from participating departments. Proposals are reviewed by the Open Curriculum Committee. Visit the interdisciplinary major website for more details.

## Interdisciplinary Minors

Interdisciplinary minors are listed alphabetically under Courses of Instruction in this bulletin. The following programs are offered:

*African American studies • African studies • American ethnic studies • bioethics, humanities and medicine • cultural heritage and preservation studies • East Asian studies • entrepreneurship • environmental science • environmental studies • film and media studies • global trade and commerce studies • health policy and administration • interdisciplinary humanities • international studies • Jewish studies • Latin-American and Latino studies • linguistics • medieval and early modern studies • Middle East and South Asia studies • neuroscience • Russian and East European studies • women's, gender, and sexuality studies • writing*

## Foreign Area Studies

The foreign area studies programs enable students to choose an interdisciplinary concentration in the language and culture of a foreign area. An area studies concentration may include courses in the major and also in the minor field, if a minor is chosen. Foreign area studies

programs do not replace majors or minors; they may supplement either or both. A faculty adviser coordinates each foreign area studies program and advises students. Students who wish to participate in one of these programs must consult with the program coordinator, preferably in their sophomore year.

Italian Studies and Spanish Studies are offered as foreign area studies programs.

## Senior Testing

All seniors may be required to participate in a testing program designed to provide objective evidence of educational development. If the Committee on Academic Affairs decides to conduct such a program, its purpose would be to assist the University in assessing the effectiveness of its programs. The program does not supplant the regular administration of the Graduate Record Examination for students applying for admission to graduate school.

## Five-year Cooperative Degree Program in Latin-American Studies

Wake Forest and Georgetown universities have instituted a five-year cooperative degree program in Latin-American Studies. Under this program, undergraduate students who minor in Latin-American and Latino Studies at Wake Forest may apply to have a limited number of hours from their undergraduate work count toward a master's degree in Latin-American Studies at Georgetown University in Washington, DC. The BA is awarded by Wake Forest, while the master's degree is awarded by Georgetown. Those whose applications are accepted may complete both their BS or BA and MA degrees in a five-year period. To apply for the combined BS/MA or BA/MA, students should declare an interest in the five-year cooperative degree program during their junior year. Students must then complete the regular Georgetown graduate application process and seek formal acceptance to the MA program during their senior year.

The five-year program is an opportunity for exceptional students to complete degree requirements at an accelerated pace. Interested students should contact the five-year degree program coordinator, Peter Siavelis, professor of politics and international affairs and director of the Latin-American and Latino Studies Program.

# DEPARTMENTS/PROGRAMS

*Plans of study, course descriptions, and the identification of instructors apply to the academic year 2021-2022, unless otherwise noted, and reflect official faculty action through May, 2021.*

The University reserves the right to change programs of study, academic requirements, assignment of lecturers, or the announced calendar. The courses listed in this bulletin are not necessarily taught every year; their availability is a function of both staffing constraints and student demand. While no guarantees about future scheduling can be made, students are encouraged to alert their advisers and department heads to their needs and desires as soon as they can be foreseen. For an exact list of courses offered in each particular semester and summer, students should consult the course schedules issued by the Office of the University Registrar during the preceding term. Course descriptions in this bulletin are brief summaries. Students are encouraged to visit departmental and program websites for more detailed information.

## Abbreviations Found in Course Descriptions

Abbreviation	Description
(#h)	Indicates the number of hours earned for successful completion of the course. Follows the course title.
P-	A course requires one or more prerequisite courses.
C-	A course requires one or more corequisite courses.
P-POI	Permission of the instructor is required for registration.
P-POD	Permission of the department is required for registration.
(CD)	A course satisfies the cultural diversity requirement.
(D)	A course satisfies a divisional requirement.
(QR)	A course satisfies the quantitative reasoning requirement.

Courses 101-199 are primarily for first-year students and sophomores; courses 200-299 are primarily for juniors and seniors; courses 301-399 are for advanced undergraduate students. Graduate courses are described in the bulletin of the Graduate School.

## African American Studies (AAS)

Interdisciplinary Program

African American Studies is a vibrant and dynamic discipline that creates new knowledge about the world and human existence through the critical and comprehensive study of the peoples, cultures, and ideas of Africa and the African diaspora. African American Studies at Wake Forest University distinguishes its approach to the discipline by its unique focus on the cultures, knowledges, and expressions of African descended people in the southern United States and their global reverberations.

The mission of African American Studies at Wake Forest University is to cultivate, nurture, and support signature intellectual contributions

to the discipline of African American Studies, critical interdisciplinary scholarship, and human knowledge and understanding through the critical and comprehensive study of the cultures, experiences, expressions, and ideas of African descended people in the United States and in the African diaspora. African American Studies at Wake Forest University offers major and minor programs that leverage the unique intellectual and institutional strengths of the University.

## Contact Information

The Program in African American Studies

Tribble Hall B207

Phone: 336-758-4728

## Programs Major

- African American Studies, B.A.

## Minor

- African American Studies, Minor

## Courses

### AAS 100. Introduction to African American Studies. (3 h)

Introduces the history and evolution of the discipline, key scholars, ideas, and themes, and central disciplinary questions in African American Studies.

### AAS 110. Introduction to Africana Philosophy. (3 h)

Introduces the history and development of Africana philosophy and explores significant issues, themes, and texts in the field.

### AAS 200. Theories and Methods in African American Studies. (3 h)

Examines the major analytical, conceptual, methodological, and theoretical frameworks in African American Studies and interdisciplinary approaches that inform the discipline.

### AAS 205. Black Cultural Studies. (3 h)

Interdisciplinary exploration of the conceptual, material, and theoretical dimensions of Black Cultural Studies and the key debates informing the politics and cultures of representation in African American and African diasporic cultural productions.

### AAS 207. Black Popular Culture. (3 h)

Explores the various forms of Black popular culture and the cultural and intellectual politics that inform its reception and representation by scholars and the general public.

### AAS 210. African American Intellectual Traditions. (3 h)

Explores significant figures and schools of thought in African American intellectual history.

### AAS 220. African American Cultural Criticism. (3 h)

Examines the cultural criticism of significant African American cultural critics and development and evolution of distinctive forms of African American cultural criticism.

### AAS 300. Black Feminist Theory. (3 h)

Examines the history and evolution of Black Feminist theory with a focus on key questions, issues and thinkers that inform Black Feminist thought.

**AAS 310. Organic Leadership: Lessons from the Black Freedom Struggle. (3 h)**

Examines the ideas, models, and philosophies of leadership of select artists, activists, and intellectuals from the modern black freedom movement.

**AAS 315. African American Social and Political Thought. (3 h)**

Examines significant figures, themes, and traditions in African American social and political thought.

**AAS 320. Philosophy and Race. (3 h)**

Examines how and in what ways race is interrogated by African American philosophers and philosophers of African descent with critical attention to issues of identity, ethics, and politics.

**AAS 322. Critical Theories of Race. (3 h)**

Explores conceptions of race informed by Critical Race Theory and other forms of critical thought.

**AAS 324. Race and the Modern World. (3 h)**

Interdisciplinary examination of the intersections of ideas, institutions, ideologies, and practices that have defined race and processes of racialization in the modern era.

**AAS 330. Politics of Black Religion. (3 h)**

Examines the complex intersection of politics and Black religion with particular consideration to how political ideas, theories, and movements are influenced by the knowledges, rituals, traditions, and practices of Black religion.

**AAS 340. Ethics of Black Power. (3 h)**

Examines the ethical dimension of Black Power and the cultural, ideological, and political movements influenced by theories and politics of Black Power.

**AAS 350. Politics of Black Liberation. (3 h)**

Explores the histories, concepts, and ideas of Black political movements that make explicit claim to enacting liberatory politics.

**AAS 355. African Political Philosophy. (3 h)**

Critical examination of the political philosophy of significant Africana thinkers and traditions.

**AAS 370. Special Topics in Arts, Aesthetics, and Expressive Cultures in African American Studies. (1-3 h)**

African American Studies topics of special interest. May be repeated for credit if topic varies.

**AAS 380. Special Topics in Ethics, Politics, and Society in African American Studies. (1-3 h)**

African American Studies topics of special interest. May be repeated for credit if topic varies.

**AAS 387. Black Radical Tradition. (3 h)**

Examines the key concepts, texts, theories, and thinkers in the Black Radical Tradition.

**AAS 390. Special Topics in History, Culture, and Theory in African American Studies. (1-3 h)**

African American Studies topics of special interest. May be repeated for credit if topic varies.

**AAS 391. Themes in Africana Philosophy. (3 h)**

Select topics and themes in Africana philosophy.

**AAS 392. Seminar in African American Studies. (3 h)**

Offered by members of the African American Studies faculty on a topic of their choice. May be repeated for credit if topic varies.

**AAS 396. Independent Study in African American Studies. (1-3 h)**

Independent research projects in African American Studies which extend study in a particular course or explores new areas of interest. A maximum of 3 hours may apply to the African American Studies major or minor. By prearrangement.

**AAS 397. Directed Reading in African American Studies. (1-3 h)**

Reading in an area of African American Studies not otherwise available. A maximum of 3 hours may apply to the African American Studies major or minor. By prearrangement.

**AAS 399. African American Studies Atelier. (3 h)**

Capstone seminar for African American Studies majors to develop original research projects engaging key theoretical, methodological, and conceptual issues in the discipline.

## Faculty

**Program Director:**

**Corey D.B. Walker**, Wake Forest Professor of the Humanities, Department of English and Interdisciplinary Humanities Program

## African American Studies, B.A.

### Requirements

Requires a minimum of 30 hours in the major.

Code	Title	Hours
<b>Core Courses</b>		<b>12</b>
AAS 100	Introduction to African American Studies	
AAS 200	Theories and Methods in African American Studies	
One course which substantially engages slavery and race in the making of the modern world		
AAS 399	African American Studies Atelier	
<b>Select at least three courses from among the following areas (at the 200 or 300 level):</b>		<b>9</b>
I. Arts, Aesthetics, and Expressive Culture		
II. Ethics, Politics, and Society		
III. History, Culture, and Theory		
<b>Select nine hours of electives</b>		<b>9</b>

### I. Arts, Aesthetics, and Expressive Culture

Code	Title	Hours
AAS 207	Black Popular Culture	3
AAS 220	African American Cultural Criticism	3
AAS 370	Special Topics in Arts, Aesthetics, and Expressive Cultures in African American Studies	3
HMN 223	African and Caribbean Literature	3
ENG 301	Individual Authors (when topic is Toni Morrison)	3
ENG 302	Ideas in Literature (when topic is Black is Beautiful: African American Poetics and Aesthetics 1919-2019)	3
ENG 356	Literature of the Caribbean	3
ENG 381	Studies in African-American Literature (when topic is appropriate)	3

ENG 387	African-American Fiction (when topic is appropriate)	3
ENG 389	African-American Poetry	3
REL 376	Race, Religion, and Film	3
THE 376	Multicultural American Drama	3

## II. Ethics, Politics, and Society

Code	Title	Hours
AAS 310	Organic Leadership: Lessons from the Black Freedom Struggle	3
AAS 330	Politics of Black Religion	3
AAS 340	Ethics of Black Power	3
AAS 350	Politics of Black Liberation	3
AAS 380	Special Topics in Ethics, Politics, and Society in African American Studies	3
ANT 335	Anthropology of Space and Place in the U.S	3,4
SOC 364	Power, Politics, and Protest	3
SOC 384	Special Topics Seminar in Crime and Criminal Justice (when topic is appropriate)	3
POL 213	Economic Inequality and American Politics	3
POL 223	African American Politics	3
POL 224	Racial and Ethnic Politics	3
POL 226	American Constitutional Law: Civil Rights and Liberties	3
POL 278	Politics and Identity	3
REL 246	Religion and Race	3
REL 338	Religion, Ethics, and Politics	3
REL 374	Black Messiahs and Uncle Toms	3
REL 375	Race, Myth, and the American Imagination	3
WGS 364	Women of Color, Feminisms, and the Politics of Resistance in the U.S	3
WGS 383	Race, Gender, and the Courts	3

## III. History, Culture, and Theory

Code	Title	Hours
AAS 110	Introduction to Africana Philosophy	3
AAS 205	Black Cultural Studies	3
AAS 210	African American Intellectual Traditions	3
AAS 300	Black Feminist Theory	3
AAS 315	African American Social and Political Thought	3
AAS 320	Philosophy and Race	3
AAS 322	Critical Theories of Race	3
AAS 324	Race and the Modern World	3
AAS 355	African Political Philosophy	3
AAS 387	Black Radical Tradition	3
AAS 391	Themes in Africana Philosophy	3
AAS 392	Seminar in African American Studies	3
AAS 396	Independent Study in African American Studies	1-3
AAS 397	Directed Reading in African American Studies	1-3
ANT 111	People and Cultures of the World	3

ANT 325	Roots of Racism: Race and Ethnic Diversity in the U.S	3
ENG 387	African-American Fiction (when topic is appropriate)	3
HMN 200	Introduction to Humanities: Themes in Literature, Culture, and Film	3
HST 105	Africa in World History	3
HST 110	Atlantic World since 1500	3
HST 271	African American History to 1870	3
HST 272	African American History since 1870	3
HST 341	Africans in the Atlantic World, 1750-1815	3
HST 375	Black Lives	3
HST 376	Civil Rights and Black Consciousness Movements	3
REL 107	Introduction to African Religions	3
REL 345	The African-American Religious Experience	3
REL 348	Race, Memory, and Identity	3
REL 373	Special Topics in African-American Religious Traditions	3
REL 393	Topics in Religions of Africa	3
SOC 359	Race and Racism	3
WGS 322	Feminist, Womanist, Murjerista Theologies: Constructive Perspectives on Christian Thought	3

## African American Studies, Minor Requirements

Requires 18 hours:

Code	Title	Hours
AAS 100	Introduction to African American Studies	3
AAS 200	Theories and Methods in African American Studies	3

Select twelve hours of electives (at least two at the 300 level) from among the following areas:

I. Arts, Aesthetics, and Expressive Culture
II. Ethics, Politics, and Society
III. History, Culture, and Theory

## I. Arts, Aesthetics, and Expressive Culture

Code	Title	Hours
AAS 207	Black Popular Culture	3
AAS 220	African American Cultural Criticism	3
AAS 370	Special Topics in Arts, Aesthetics, and Expressive Cultures in African American Studies	3
HMN 223	African and Caribbean Literature	3
ENG 301	Individual Authors (when topic is Toni Morrison)	3
ENG 302	Ideas in Literature (when topic is Black is Beautiful: African American Poetics and Aesthetics 1919-2019)	3
ENG 356	Literature of the Caribbean	3

ENG 381	Studies in African-American Literature (when topic is appropriate)	3
ENG 387	African-American Fiction (when topic is appropriate)	3
ENG 389	African-American Poetry	3
REL 376	Race, Religion, and Film	3
THE 376	Multicultural American Drama	3

## II. Ethics, Politics, and Society

Code	Title	Hours
AAS 310	Organic Leadership: Lessons from the Black Freedom Struggle	3
AAS 330	Politics of Black Religion	3
AAS 340	Ethics of Black Power	3
AAS 350	Politics of Black Liberation	3
AAS 380	Special Topics in Ethics, Politics, and Society in African American Studies	3
ANT 335	Anthropology of Space and Place in the U.S	3,4
SOC 364	Power, Politics, and Protest	3
SOC 384	Special Topics Seminar in Crime and Criminal Justice (when topic is appropriate)	3
POL 213	Economic Inequality and American Politics	3
POL 223	African American Politics	3
POL 224	Racial and Ethnic Politics	3
POL 226	American Constitutional Law: Civil Rights and Liberties	3
POL 278	Politics and Identity	3
REL 246	Religion and Race	3
REL 338	Religion, Ethics, and Politics	3
REL 374	Black Messiahs and Uncle Toms	3
REL 375	Race, Myth, and the American Imagination	3
WGS 364	Women of Color, Feminisms, and the Politics of Resistance in the U.S	3
WGS 383	Race, Gender, and the Courts	3

## III. History, Culture, and Theory

Code	Title	Hours
AAS 110	Introduction to Africana Philosophy	3
AAS 205	Black Cultural Studies	3
AAS 210	African American Intellectual Traditions	3
AAS 300	Black Feminist Theory	3
AAS 315	African American Social and Political Thought	3
AAS 320	Philosophy and Race	3
AAS 322	Critical Theories of Race	3
AAS 324	Race and the Modern World	3
AAS 355	African Political Philosophy	3
AAS 387	Black Radical Tradition	3
AAS 391	Themes in Africana Philosophy	3
AAS 392	Seminar in African American Studies	3
AAS 396	Independent Study in African American Studies	1-3

AAS 397	Directed Reading in African American Studies	1-3
ANT 111	People and Cultures of the World	3
ANT 325	Roots of Racism: Race and Ethnic Diversity in the U.S	3
ENG 387	African-American Fiction (when topic is appropriate)	3
HMN 200	Introduction to Humanities: Themes in Literature, Culture, and Film	3
HST 105	Africa in World History	3
HST 110	Atlantic World since 1500	3
HST 271	African American History to 1870	3
HST 272	African American History since 1870	3
HST 341	Africans in the Atlantic World, 1750-1815	3
HST 375	Black Lives	3
HST 376	Civil Rights and Black Consciousness Movements	3
REL 107	Introduction to African Religions	3
REL 345	The African-American Religious Experience	3
REL 348	Race, Memory, and Identity	3
REL 373	Special Topics in African-American Religious Traditions	3
REL 393	Topics in Religions of Africa	3
SOC 359	Race and Racism	3
WGS 322	Feminist, Womanist, Murjerista Theologies: Constructive Perspectives on Christian Thought	3

## Academic Community Engagement (ACE)

**Coordinator** Alessandra Von Burg, Associate Professor of Communication

**Academic Community Engagement (ACE) courses** connect academic content to community engagement through collaboration with community partners. ACE courses align with the Carnegie Foundation's classification of community engagement as "the collaboration between institutions of higher education and their larger communities (local, regional/state, national, global) for the mutually beneficial exchange of knowledge and resources in a context of partnership and reciprocity."

ACE courses are approved by the ACE Advisory Council based on criteria that include, but are not limited to: reciprocity with community partners; demonstration of relevant and meaningful community engagement; clear articulation of intended student learning outcomes and community goals; methods of assessment of student outcomes and of community outcomes; and evidence of integration of academic and engagement goals. Faculty teaching ACE courses employ a variety of methods to engage the community. For more details and a complete list of all ACE-designated courses, refer to the Pro Humanitate Institute website (<http://phi.wfu.edu/>).

## African Studies (AFS)

Interdisciplinary Minor

The African Studies minor is designed to give students broad multidisciplinary perspectives on African history, politics, culture, and the



economy. The program aims to teach students about the diversity of the African experience and to think critically about the generalized and often incomplete information that are encountered in the media, written texts, and pronouncements of experts, casual observers, residents, and visitors to the continent. The educational objectives of the program include helping the students to acquire critical information that would facilitate their understanding of the multiethnic and multicultural world they live in and become, in the process, global citizens.

## Contact Information

African Studies (<http://college.wfu.edu/politics/africanstudies/>)

## Programs

### Minor

- African Studies, Minor

## Courses

### African Studies (AFS)

**AFS 220. Special Topics in African Studies. (1-3 h)**

Subject varies with instructor. May be repeated for credit if topic varies.

**AFS 250. Seminar in African Studies. (3 h)**

Interdisciplinary investigation of important issues related to Africa's past and present.

## Faculty

**Coordinator:**

**Nate Plageman**, Associate Professor, Department of History

**Core Faculty:**

**Lina Benabdallah**, Assistant Professor, Department of Politics and International Affairs

**Guillaume Coly**, Assistant Professor, Department of French Studies

**Regina Cordy**, Assistant Professor, Department of Biology

**Andrew Gurstelle**, Assistant Teaching Professor, Department of Anthropology and Director, Museum of Anthropology

**Simeon Ilesanmi**, Washington M. Wingate Professor, Department for the Study of Religions

**Veronique McNeely**, Associate Professor of the Practice, Department of French Studies

**Kimberly Wortmann**, Assistant Professor, Department for the Study of Religions

## African Studies, Minor

### Requirements

The interdisciplinary minor in African Studies offers students the opportunity to pursue a multidisciplinary study of Africa. The minor requires a minimum of 15 hours. Students who intend to minor in African Studies are encouraged to consult the coordinator of the program in their sophomore year. It is recommended that AFS 250 be taken after completing at least one other course for the minor.

Candidates for the minor are required to take the following:

Code	Title	Hours
HST 105	Africa in World History	3
or REL 107	Introduction to African Religions	

AFS 250	Seminar in African Studies (strongly recommended to be taken in senior year)	3
Select 9 hours of Electives		9

## Electives for African Studies

The program coordinator maintains a complete list of all elective courses that fulfill the minor, as additional elective courses may have been approved since publication of this bulletin. Students may fulfill elective requirements by completing courses related to Africa on a Wake Forest approved study abroad course; they may also seek prior approval from the program coordinator for courses which are not listed here but which have a significant African component. No more than 9 hours within a single discipline may count towards the minor. For course descriptions, see the relevant department's listings in this bulletin.

Code	Title	Hours
AFS 220	Special Topics in African Studies	1-3
ANT 370	Origins to Empires: The Archaeology of Africa and Eurasia	3
ART 104	Topics in World Art (when topic is appropriate)	3
DCE 122	Special Topics in Dance (when topic is African dance)	1-3
ECN 358	Economic Growth and Development	3
ENG 337	Studies in 18th-Century British Literature (when topic is appropriate)	3
ENG 356	Literature of the Caribbean	3
ENG 358	Postcolonial Literature	3
FRH 216	Studies in French and Francophone Literature and Culture (when topic is appropriate)	3
HMN 223	African and Caribbean Literature	3
HST 268	African History to 1870	3
HST 269	African History since 1850	3
HST 271	African American History to 1870	3
HST 272	African American History since 1870	3
HST 336	Gender and Power in African History	3
HST 340	Urban Africa	3
HST 341	Africans in the Atlantic World, 1750-1815	3
HST 378	Race, Memory, and Identity	3
MUS 109	Introduction to the Music of World Cultures (when topic is appropriate)	3
MUS 209	Music of World Cultures (when topic is appropriate)	3
POL 242	Topics in Comparative Politics (when topic is appropriate)	3
POL 252	Topics in International Politics (when topic is appropriate)	3
POL 257	Politics of International Development	3
POL 266	Modern Civil Wars	3
POL 274	Arab and Islamic Political Thought	3
REL 110	Introduction to Islamic Traditions (when topic is appropriate)	3
REL 336	Religious Traditions and Human Rights	3
REL 339	Religion, Power, and Society in Modern Africa	3

REL 345	The African-American Religious Experience	3
REL 348	Race, Memory, and Identity	3
REL 362	Topics in Islam (when topic is appropriate)	3
REL 393	Topics in Religions of Africa	3
SPA 368	Afro Cuban Cultural Expression	3

## American Ethnic Studies (AES)

Interdisciplinary Minor

The American Ethnic Studies Program at Wake Forest University is a multicultural and multiracial research and teaching unit, dedicated to providing knowledge in the study of race, class, gender and ethnicity. Through the programs' curricula focus on several major ethnic groups including, African American, Asian/Pacific Islanders, Hispanics, and Chicanos, students learn interdisciplinary, ethnic-specific, and comparative concepts, theories, and methods of inquiry, which shape the cultural, literary, social, historical, economic, and political character of selected American ethnic communities.

## Contact Information

American Ethnic Studies (<http://college.wfu.edu/aes/>)  
Kirby Hall 313  
Phone 336-758-4497

## Programs

### Minor

- American Ethnic Studies, Minor

## Courses

### American Ethnic Studies (AES)

#### AES 232. The American Jewish Experience. (3 h)

An interdisciplinary course exploring Jewish immigration to America with a primary focus on the nineteenth and twentieth centuries.

#### AES 234. Ethnicity and Immigration. (3 h)

An exploration of the socio-historical dynamics of the peopling of America in the nineteenth and twentieth centuries. (CD)

#### AES 236. Multi-Ethnic Dance. (3 h)

Exploration of the cultural importance of dance in major ethnic groups in American society. Also listed as DCE 236. (CD)

#### AES 251. Race and Ethnic Diversity in America. (3 h)

Different race and ethnic experiences are examined through an institutional approach that examines religion, work, schooling, marriage patterns, and culture from cross-cultural perspective. Grand theoretical schemes like the "melting pot" are critiqued for their relevance in an age of new cultural expectations among the many American ethnic groups. Also listed as WGS 251. (CD)

#### AES 265. Culture and Religion in Contemporary Native America. (3 h)

Interdisciplinary survey of American-Indian culture, including the arts and literature, religions, and historical changes. Special emphasis is placed on the impact of the Conquista, encounters with Northern Atlantic societies, and contemporary developments. Also listed as REL 265 and HMN 285. (CD)

#### AES 300. American Ethnic Literature and Film. (3 h)

Through a discussion of cinematic and literary works from the Caribbean, North Africa, and sub-Saharan Africa, this course explores how artists have created a space in which to find their voice and cultural identity within both a global and personal history.

#### AES 310. Race, Class, and Gender in a Color-blind Society. (3 h)

Examines issues surrounding race, class, and gender in the United States. Topics include income and wealth, theories of discrimination, public education, gender bias, and patterns of occupational and industrial segregation. Also listed as EDU 310.

#### AES 341. Africans in the Atlantic World, 1750-1815. (3 h)

Explores Africans' experience in the Atlantic world (Africa, Europe and the Americas) during the era of the slave trade by examining their encounters with Indians and Europeans and their adjustment to slave traders in West Africa. Also listed as HST 341. (CD)

#### AES 357. Studies in Chicano/a Literature. (3 h)

Writings by Americans of Mexican descent in relation to politics and history. Readings in literature, literary criticism, and socio-cultural analysis. Also listed as ENG 357. (CD)

#### AES 358. The Italian Experience in America. (3 h)

Explores issues of ethnicity and identity in the Italian-American experience. A central goal of this course is to understand the inter-relationship of social, economic and political factors that impinge on this large European ethnic group.

#### AES 370. Immigration Practices in the U.S. and the European Union. (3 h)

Explores the history and theory of immigration practices in the U.S. (after 1800) and the European Union (after its establishment in 1957) and compares the discourses and public policies in the two regions.

#### AES 387. African-American Fiction. (3 h)

Selected topics in the development of fiction by American writers of African descent. Also listed as ENG 387. (CD)

#### AES 389. African-American Poetry. (3 h)

Readings of works by American poets of African descent in theoretical, critical, and historical contexts. Also listed as ENG 389. (CD)

#### AES 390. Special Topics. (1.5, 3 h)

American ethnic studies topics of special interest. May be repeated for credit if topic varies.

#### AES 396. Independent Study. (1-3 h)

Independent projects in American Ethnic Studies which either continue study begun in regular courses or develop new areas of interest. A maximum of 3 hours may apply to the minor. By prearrangement.

## Faculty

**Director** Ana-María González Wahl

**Core Faculty:** Sherriann Lawson Clark

**Affiliated Faculty:** Nina Lucas, Anthony Parent

## American Ethnic Studies, Minor

### Requirements

Requires 15 hours.

Code	Title	Hours
AES 251	Race and Ethnic Diversity in America (during the second or third year at Wake Forest)	3
or ANT 325	Roots of Racism: Race and Ethnic Diversity in the U.S.	

AES 234	Ethnicity and Immigration	3
or SOC 356	Sociology of Immigration	
or COM 339	Practices of Citizenship	
Select a 3-hour course from the behavioral and social sciences		3
Select a 3-hour course from the humanities		3
Electives		3

This structure gives students an understanding of the interdisciplinary nature of American ethnic studies within the context of the traditional liberal arts curriculum.

## Electives for American Ethnic Studies

Additional elective courses may have been approved since publication of this bulletin. The program director maintains a complete list of all approved elective courses. For course descriptions, see the relevant department's listings in this bulletin.

Code	Title	Hours
ANT 325	Roots of Racism: Race and Ethnic Diversity in the U.S	3
ANT 374	North American Archaeology	3
COM 330	Communication and Conflict	3
COM 338	African-American Rhetoric	3
COM 339	Practices of Citizenship	3
COM 340	Democracy, Slavery and Sex: Emancipation Discourse from the Founding to the Civil War	3
COM 341	Class, Race, Sex and War: Emancipation Discourse from the Civil War to the Second Wave of Feminism	3
COM 350	Intercultural Communication	3
EDU 305	The Sociology of Education	3
ENG 371	American Ethnic Literature	3
ENG 377	American Jewish Literature	3
ENG 379	Literary Forms of the American Personal Narrative	3
ENG 381	Studies in African-American Literature	3
ENG 393	Multicultural American Drama	3
HST 271	African American History to 1870	3
HST 272	African American History since 1870	3
HST 338	Sexuality, Race and Class in the United States since 1850	3
HST 341	Africans in the Atlantic World, 1750-1815	3
HST 358	Race, Gender and the Courts	3
HST 365	Modern Native American History	3
HST 376	Civil Rights and Black Consciousness Movements	3
HST 378	Race, Memory, and Identity	3
HST 390	Research Seminar (Race, Class, Gender and Resistance in the American South)	4
HST 390	Research Seminar (Slave, Narrative and Memory)	4
MUS 203	Jazz	3
MUS 207	American Music	3
POL 214	Latino/a Political Behavior	3

POL 223	African American Politics	3
POL 224	Racial and Ethnic Politics	3
POL 278	Politics and Identity (on-campus only)	3
PSY 357	Cross-Cultural Psychology	3
PSY 364	Stereotyping and Prejudice	3
REL 103A	Introduction to Christian Traditions	3
REL 113	Introduction to Jewish Traditions	3
REL 342	Religious Intolerance in the U.S	3
REL 345	The African-American Religious Experience	3
REL 357	Jews in the United States	3
REL 359	Hinduism in America	3
REL 373	Special Topics in African-American Religious Traditions	3
REL 374	Black Messiahs and Uncle Toms	3
REL 375	Race, Myth, and the American Imagination	3
SOC 348	Sociology of the Family	3
SOC 356	Sociology of Immigration	3
SOC 359	Race and Racism	3
SOC 360	Social Inequality	3
SOC 364	Power, Politics, and Protest	3
SPA 363	Cultural and Social Entrepreneurship: Promotion of Latin American and Latino Societies	3
WGS 364	Women of Color, Feminisms, and the Politics of Resistance in the U.S	3
WGS 377	Special Topics (Ethnohistory of Native-American Women, in any semester in which this topic is taught)	3
WGS 383	Race, Gender, and the Courts	3

## Anthropology (ANT)

The WFU Department of Anthropology promotes understanding and appreciation of human cultural and biological diversity. Through academic courses, scholarly and applied research, and public service, the Department provides the Wake Forest community with the tools and knowledge necessary for global citizenship. Composed of scholars representing all sub-fields of anthropology, the Department serves as the premier academic and practical resource for multicultural awareness and education in the University and Winston-Salem communities, enhancing the University's commitment to Pro Humanitate.

## Contact Information

Department of Anthropology (<http://college.wfu.edu/anthropology/>)  
 Anthropology Building, Box 7807  
 Phone 336-758-5945

## Programs

### Major

- Anthropology, B.A.

### Minor

- Anthropology, Minor

## Courses

### Anthropology (ANT)

#### **ANT 111. People and Cultures of the World. (3 h)**

A representative ethnographic survey of worldwide cultures and major concepts in cultural anthropology taught through case studies. Credit toward the major or minor not given for both ANT 111 and ANT 114. (CD, D)

#### **ANT 111G. People and Cultures of World. (3 h)**

A representative ethnographic survey of worldwide cultures and major concepts in cultural anthropology taught through case studies. Same as ANT 111, and also meets the geography requirement for teaching licensure candidates. (CD, D)

#### **ANT 112. Introduction to Archaeology. (3 h)**

Overview of the field of archaeology and its place within anthropology. Includes coverage of methods, theory, history of the field, and discussions of major developments in world prehistory (CD, D)

#### **ANT 113. Introduction to Biological Anthropology. (3 h)**

Introduction to biological anthropology, including human biology, human variation, human genetics, human evolution, and primatology. (D)

#### **ANT 114. Introduction to Cultural Anthropology. (3 h)**

Investigates and interprets the cultural diversity of the world's people, through an understanding of economic, social, and political systems, law, and religion; language and culture; gender, race, ethnicity, kinship and the family; and globalization and culture change. Credit toward the major or minor not given for both ANT 111 and ANT 114. (CD, D)

#### **ANT 150. Introduction to Linguistics. (3 h)**

The social phenomenon of language: how it originated and developed, how it is learned and used, its relationship to other kinds of behavior; types of language (oral, written, signed) and language families; analysis of linguistic data; social issues of language use. Also listed as LIN 150. (CD, D)

#### **ANT 190. Introduction to Museum Studies. (3 h)**

Survey of museum history and theory. Covers object collections, curation, exhibit design, and cultural issues in museums. Does not count toward the major or minor in anthropology. (D)

#### **ANT 305. Museum Anthropology. (3 h)**

Examines the historical, social, and ideological forces shaping the development of museums including the formation of anthropological collections and representation, and the intellectual and social challenges facing museums today. P - ANT 111 or 112 or 114, or POI.

#### **ANT 307. Collections Management Practicum. (1.5 h)**

The principles of collections management including artifact registration, cataloging, storage, and handling; conservation issues and practices; disaster planning and preparedness; and ethical issues will be covered through lectures, readings, workshops, and hands-on use of the Museum's collections.

#### **ANT 308. Archaeological Theory and Practice. (3 h)**

Examination of contemporary archaeological topics through participation in the formulation and implementation of an archaeological research design. Building knowledge relevant to contemporary society through understanding the interdependent nature of archaeological theory and method.

#### **ANT 315. Artifact Analysis and Laboratory Methods in Archaeology. (4 h)**

An introduction to methods for determining the composition, age, manufacture, and use of different prehistoric and historic artifact types. Techniques for reconstruction of past natural environments from geological or ecofact samples. Exploration of date display tools including computer-based illustration, and archeological photography. P-ANT 111 or 112 or 114, or POI.

#### **ANT 318. Prehistory and Archaeology of Europe. (3 h)**

Problem-based survey of the archaeological record of Europe. Complex interrelationships of material culture, economy, ideology, and social life from earliest peopling to the late Iron Age. Offered only in WFU Study Abroad programs.

#### **ANT 325. Roots of Racism: Race and Ethnic Diversity in the U.S. (3 h)**

Examines biological myths of race and race as a social construction; historical, economic, and political roots of inequalities; institutions and ideologies that buttress and challenge power relations; and implications of anthropological teaching and research for understanding social class and race discrimination in the U.S. (CD)

#### **ANT 327. Global Justice and Human Rights in Latin America. (3 h)**

Examines anthropological understandings of human rights, with emphasis on activism and rights-in-practice in Latin America. Explores how human rights are understood, mobilized, and reinterpreted in specific contexts. Investigates how anthropologists negotiate tensions between culture and rights, universalism and relativism, and advocacy and neutrality. (CD)

#### **ANT 329. Feminist Anthropology. (3 h)**

Examines cultural constructions of gender from a cross-cultural perspective and the relationship between feminism and anthropology through time. Emphasizes how varied forms of feminisms are constituted within diverse social, cultural, and economic systems. Students consider how feminist anthropologists have negotiated positions at the intersection of cultural and human rights. Also listed as WGS 329.

#### **ANT 332. Anthropology of Gender. (3 h)**

Focuses on the difference between sex, a biological category, and gender, its cultural counterpart. An anthropological perspective is used to understand both the human life cycle and the status of contemporary women and men worldwide. In section one, topics include evolution and biological development, sexuality and reproduction, parenting, and life cycle changes. The second section takes students to diverse locations, including Africa, South Dakota, China, India, and the Amazon for a cross-cultural comparison examining roles, responsibilities, and expectations, and how these interact with related issues of class and race. (CD)

#### **ANT 333. Language and Gender. (3 h)**

Uses an anthropological perspective to examine relationships among language structure, language use, persons, and social categories. Also listed as LIN 333.

#### **ANT 334. People and Cultures of South Asia. (3 h)**

Survey of the people and cultures of the Indian subcontinent in the countries of Afghanistan, Bangladesh, Bhutan, India, Nepal, Pakistan, and Sri Lanka. The course reviews major topics of interest to anthropologists, including prehistory, history and politics, religion, social organization, caste, gender, development, and population. (CD)



**ANT 335. Anthropology of Space and Place in the U.S. (3, 4 h)**

Course examines the spatial dimensions of culture by focusing on housing disparities in the U.S. Particular attention is paid to the cultural, gendered, economic, political, and regional contexts of housing policies and the impact policies have on children, families and communities. Course includes an optional Service-Learning community asset mapping assignment of a local Winston-Salem neighborhood.

**ANT 336. Myth, Ritual and Symbolism. (3 h)**

Explores how people envision and manipulate the supernatural in cross-cultural perspective. Emphasizes dynamic aspects of religious beliefs and practices. Also listed as REL 304. P-ANT 111 or 114 or POI. (CD)

**ANT 337. Economic Anthropology. (3 h)**

Examines the relationship between culture and the economy and its implications for applied anthropology. The variable nature and meaning of economic behavior will be examined in societies ranging from non-industrial to post-industrial. Discusses the impact of economic development programs, foreign aid and investment, technology transfer, and a variety of other economic aid programs. P-ANT 111 or 112 or 113 or 114, or POI.

**ANT 339. Culture and Nature: Introduction to Environmental Anthropology. (3 h)**

Exploration of humanity's "place" in the cosmos, focusing on different worldviews of nature and culture. Case studies from anthropology, archeology, and environmental science examine conceptions of technology, resources, environment, and ownership in the context of environmental change, "natural" disasters, and resource scarcity. (CD)

**ANT 340. Anthropological Theory. (4 h)**

Critical review of the major anthropological theories of humans and society. The relevance and significance of these theories to contemporary anthropology are discussed. P-ANT 112 and 113 and 114, or POI.

**ANT 342. Applied Anthropology. (3 h)**

Explores the application of anthropological concepts and methods in the understanding of contemporary problems stemming from cultural diversity, including competing social and economic development models and ideologies of terror. Emphasis is on conflict and change in developing areas but also considers the urban experiences. (CD)

**ANT 347. Warfare and Violent Conflict. (3 h)**

Seminar focusing on the causes and nature of warfare and violent group interaction across cultures and through time. Compares case studies from around the globe and of varying sociopolitical organization, past and present. Includes explorations of primate behavior, forms of warfare, and competing theoretical explanations for its existence and for particular occurrences.

**ANT 350. Language, Indigeneity and Globalization. (3 h)**

Taking a global case-study approach, this seminar explores the role language plays in contemporary identity formation and expression, from indigenous to transnational contexts. Addresses relationships among language and colonialism, postcolonialism, nationalism, cultural revitalization, standardization, social and economic inequality, boundary-formation, and processes of cultural inclusion and exclusion. Also listed as LIN 350. (CD)

**ANT 353. Language in Education. (3 h)**

This seminar explores the role of language in educational contexts; includes the study of bilingual and bicultural education, second language education, cross-cultural education, and communication in the classroom. Service-learning component. Also listed as EDU 353. (CD)

**ANT 354. Field Methods in Linguistic Anthropology. (4 h)**

Trains students in basic skills of collecting and analyzing linguistic data at the levels of phonetics-phonology, grammar, lexico-semantics, discourse, and sociocultural context. Students will learn about the research questions that drive linguistic fieldwork as well as the relevant methods, tools, and practical and ethical concerns. Also listed as LIN 354. P-ANT/LIN 150 or POI.

**ANT 355. Language and Culture. (3 h)**

Covers theoretical and methodological approaches to the study of language and culture, including: semiotics, structuralism, ethnohistory, the ethnography of communication, and sociolinguistics. The topics include: linguistic relativity; grammar and worldview; lexicon and thought; language use and social inequality; language and gender; and other areas. Also listed as LIN 355. (CD)

**ANT 358. Native Peoples of North America. (3 h)**

Ethnology and ethnohistory of the indigenous peoples and cultures of North America since European contact. Explores historic and modern cultures, social and political relationships with Euroamericans, and social justice. (CD)

**ANT 360. Anthropology of Global Health. (3 h)**

A critical introduction to the interdisciplinary field of global health, focusing on contributions from medical anthropology. Compares a diversity of health experiences and evaluates interventions across the globe. Explores how biocultural, political, and economic forces shape patterns of illness and disease with special attention to improving the health of the world's most vulnerable citizens.

**ANT 361. Evolution of Human Behavior. (3 h)**

The application of Darwinian principles to the study of human nature and culture. Considers the existence, origin, and manifestation of human behavioral universals and the theoretical and practical implications of individual variability.

**ANT 362. Medical Anthropology. (3 h)**

Examines Western and non-Western conceptions of health, illness, the roles of patient and healer, and the organization of health in Western and non-Western cultures. Service learning optional. P-ANT 111 or 114, or POI. (CD)

**ANT 363. Primate Behavior and Biology. (3 h)**

Examines the evolution and adaptations of the order Primates. Considers the different ways that ecology and evolution shape social behavior. A special emphasis on the lifeways of monkeys and apes.

**ANT 364. Primate Evolutionary Biology. (3 h)**

Examines the anatomy, evolution, and paleobiology of members of the order Primates. Emphasis is placed on the fossil evidence for primate evolution. Major topics covered include: primate origins, prosimian and anthropoid adaptations, patterns in primate evolution, and the place of humans within the order Primates.

**ANT 366. Human Evolution. (3 h)**

The paleontological evidence for early human evolution, with an emphasis on the first five million years of biocultural evolution.

**ANT 367. Human Biological Diversity. (3 h)**

Seminar focusing on current issues in human biological diversity. Special emphasis on the nature of human variation, and the relationship between human biological diversity and human behavioral diversity. Students learn what is known about how modern human biological variation is patterned and investigate how this variation is interpreted culturally.



**ANT 368. Human Osteology. (4 h)**

Survey and analysis of human skeletal anatomy, emphasizing archeological, anthropological, and forensic applications and practice. Lab-4 hours.

**ANT 370. Origins to Empires: The Archaeology of Africa and Eurasia. (3 h)**

Survey of human prehistory from the earliest hominin social behaviors to the rise of cultural complexity and stratified societies in Africa, Asia, and Europe. Detailed examination of the cultural evolution of state societies within important contexts of past environmental, social, and political change. (CD)

**ANT 372. Environmental Archaeology. (3 h)**

Survey of scientific approaches for reconstructing and interpreting the interactions between past human populations and their environments. Integrates geoarchaeological, archaeobotanical, zooarchaeological, and geochronological methods with anthropological understandings of human construction and experience of environment. Problem-based field activities provide experience applying research techniques and anthropological theory.

**ANT 374. North American Archaeology. (3 h)**

The development of indigenous cultures in North America, from the earliest arrival of people to European contact as outlined by archeological research, with an emphasis on ecology and sociocultural processes. (CD)

**ANT 378. Conservation Archeology. (1.5 h)**

A study of the laws, regulations, policies, programs, and political processes used to conserve prehistoric and historic cultural resources.

**ANT 380. Anthropological Statistics. (3 h)**

Basic statistics, emphasizing application in anthropological research. (QR)

**ANT 381. Field Program in Anthropological Archaeology. (3 h)**

Integrated training in archeological field methods and analytical techniques for researching human prehistory. Students learn archeological survey, mapping, excavation, recording techniques, and artifact and ecofact recovery and analysis. P-ANT 111 or 112 or 113 or 114 or POI. (D)

**ANT 382. Field Program in Anthropological Archaeology. (3 h)**

Integrated training in archeological field methods and analytical techniques for researching human prehistory. Students learn archeological survey, mapping, excavation, recording techniques, and artifact and ecofact recovery and analysis. P-ANT 111 or 112 or 113 or 114 or POI. (D)

**ANT 383. Field program in Cultural Anthropology. (3 h)**

The comparative study of culture and training in ethnographic and cultural analysis carried out in the field. P-ANT 111 or 112 or 113 or 114 or POI. (CD, D)

**ANT 384. Field Program in Cultural Anthropology. (3 h)**

The comparative study of culture and training in ethnographic and cultural analysis carried out in the field. P-ANT 111 or 112 or 113 or 114 or POI. (CD, D)

**ANT 385. Special Problems Seminar. (3 h)**

Intensive investigation of current scientific research within the discipline. The course concentrates on problems of contemporary interest.

**ANT 386. Special Problems Seminar. (3 h)**

Intensive investigation of current scientific research within the discipline. The course concentrates on problems of contemporary interest.

**ANT 387. Ethnographic Research Methods. (4 h)**

Designed to familiarize students with ethnographic research methods and their application. Considers the epistemological, ethical, political, and psychological aspects of research. Field experience and data analysis. P-ANT 111 or 114 or POI.

**ANT 390. Student-Faculty Seminar. (4 h)**

A review of contemporary problems in the fields of archeology, linguistics, and biological and cultural anthropology. Senior standing recommended. P-ANT 112, 113 and 114, or POI.

**ANT 391. Internship in Anthropology. (1-3 h)**

An internship course designed to meet the needs and interests of selected students, to be carried out under the supervision of a departmental faculty member. P-POI.

**ANT 392. Internship in Anthropology. (1-3 h)**

An internship course designed to meet the needs and interests of selected students, to be carried out under the supervision of a departmental faculty member. P-POI.

**ANT 393. Community-Based Research or Service-Learning in Anthropology. (1-3 h)**

Semester experience to be taken in conjunction with another anthropology course. Involves the application of anthropological methods and theory within a community-based research project or service-learning framework.

**ANT 394. Mentored Research in Anthropology. (1-3 h)**

Undergraduate research mentored by faculty and involving intensive investigation of an anthropological problem. P-POI.

**ANT 395. Honors Thesis in Anthropology. (1-3 h)**

Research, analysis, and writing of an Honors Thesis required for graduation with departmental honors to be carried out under the supervision of a departmental faculty member. Senior standing required. P-POI.

**ANT 398. Individual Study. (1-3 h)**

A reading or research course designed to meet the needs and interests of selected students, to be carried out under the supervision of a departmental faculty member. P-POI.

**ANT 399. Individual Study. (1-3 h)**

A reading or research course designed to meet the needs and interests of selected students, to be carried out under the supervision of a departmental faculty member. P-POI.

## Faculty

**Chair** Steven Folmar

**Professor** Ellen Miller

**Associate Professors** Margaret Bender, Steven Folmar, Eric Jones, Paul Thacker

**Assistant Professors** Karin Friederic, Mary Good, Sherri Lawson Clark

**Academic Director of Museum of Anthropology and Assistant Teaching Professor** Andrew Gurstelle

## Anthropology, B.A.

### Requirements

Requires a minimum of 33 hours and must include:

Code	Title	Hours
<b>Required Major Courses</b>		
ANT 111	People and Cultures of the World	3

or ANT 114	Introduction to Cultural Anthropology	
ANT 112	Introduction to Archaeology	3
ANT 113	Introduction to Biological Anthropology	3
ANT 340	Anthropological Theory	4
ANT 390	Student-Faculty Seminar	4
Select one course from Linguistic Anthropology		3-4
Select one course from Methods Courses		3-4

Students are encouraged, but not required, to enroll in a course offering intensive field research training.

A minimum GPA of 2.0 in anthropology courses is required at the time the major is declared. A minimum GPA of 2.0 in anthropology courses counted toward the major is required for graduation. Credit toward the major or minor not given for both ANT 111 and ANT 114. Only one course (excluding ANT 111, ANT 112, ANT 113, ANT 114, ANT 150, ANT 340, ANT 390) can be taken under the pass/fail option and used to meet major requirements. A maximum of four hours of course credit from the following can be used to meet major requirements.

Code	Title	Hours
ANT 391	Internship in Anthropology	1-3
ANT 392	Internship in Anthropology	1-3
ANT 393	Community-Based Research or Service-Learning in Anthropology	1-3
ANT 394	Mentored Research in Anthropology	1-3
ANT 395	Honors Thesis in Anthropology	1-3
ANT 398	Individual Study	1-3
ANT 399	Individual Study	1-3

A maximum of six hours of anthropology transfer credit can be used to meet major requirements.

## Linguistic Anthropology

Code	Title	Hours
ANT 150	Introduction to Linguistics	3
ANT 333	Language and Gender	3
ANT 350	Language, Indigeneity and Globalization	3
ANT 353	Language in Education	3
ANT 354	Field Methods in Linguistic Anthropology	4
ANT 355	Language and Culture	3

## Methods Courses

Code	Title	Hours
ANT 315	Artifact Analysis and Laboratory Methods in Archaeology	4
ANT 354	Field Methods in Linguistic Anthropology	4
ANT 368	Human Osteology	4
ANT 380	Anthropological Statistics	3
ANT 381	Field Program in Anthropological Archaeology	3
ANT 382	Field Program in Anthropological Archaeology	3
ANT 383	Field program in Cultural Anthropology	3

ANT 384	Field Program in Cultural Anthropology	3
ANT 387	Ethnographic Research Methods	4

## Honors

To be graduated with the designation "Honors in Anthropology," highly qualified majors (3.5 GPA in anthropology) should apply to the department for admission to the honors program. Honors students must complete a senior research project, document their research, and satisfactorily defend their work in an oral examination. For additional information, members of the departmental faculty should be consulted.

## Anthropology, Minor

### Requirements

Requires 18 hours and must include:

Code	Title	Hours
Select two of the following:		6
ANT 112	Introduction to Archaeology	
ANT 113	Introduction to Biological Anthropology	
ANT 114	Introduction to Cultural Anthropology	
ANT 150	Introduction to Linguistics	
Select a minimum of six hours at the 200-level or above.		6

Only one course (excluding ANT 112, ANT 113, ANT 114, ANT 150) can be taken under the pass/fail option and used to meet minor requirements. Credit toward the major or minor not given for both ANT 111 and ANT 114. Only three hours from the following may be used toward the minor.

Code	Title	Hours
ANT 391	Internship in Anthropology	1-3
ANT 392	Internship in Anthropology	1-3
ANT 393	Community-Based Research or Service-Learning in Anthropology	1-3
ANT 394	Mentored Research in Anthropology	1-3
ANT 395	Honors Thesis in Anthropology	1-3
ANT 398	Individual Study	1-3
ANT 399	Individual Study	1-3

Only three hours from the following may be used to meet minor requirements.

Code	Title	Hours
ANT 381	Field Program in Anthropological Archaeology	3
ANT 382	Field Program in Anthropological Archaeology	3
ANT 383	Field program in Cultural Anthropology	3
ANT 384	Field Program in Cultural Anthropology	3

A minimum GPA of 2.0 in anthropology courses counted toward the minor is required for graduation.

## Art (ART)

The department offers courses in the history of art, architecture, printmaking, photography, and film from the ancient through modern

periods, and the practice of studio art in six areas: drawing, painting, printmaking, sculpture, photography, and video art. Opportunities to supplement the regular academic program of the department include study abroad in Wake Forest residential study centers, changing art exhibitions in the gallery of the Scales Fine Arts Center, exhibition of student work in the START gallery, and internships in local museums and arts organizations. The art department requires a minimum GPA of 2.0 in the major for graduation.

The department offers two majors, art history and studio art, each requiring ten courses of three or more semester hours each. Any student interested in majoring or minoring in art should contact the art department. Students may major in one field and minor in the other by successfully completing a minimum of 13 courses in art, of which at least eight courses must be in the major field and at least four courses in the minor field.

The department accepts only three courses from a non-Wake Forest program for credit toward the major or minor. Of these three courses, only two may be in the same area of concentration as the major or minor. That is, an art history major or minor may take up to two art history courses and one studio course; a studio major or minor may take up to two studio art courses and one art history course at a non-Wake Forest program. All studio courses taken abroad are assigned ART 210.

Students enrolled at Wake Forest may not take courses in studio art or art history at other institutions to satisfy divisional requirements.

## Contact Information

Department of Art (<http://college.wfu.edu/art/>)  
Scales Fine Arts Center 110A, Box 7232  
Phone 336-758-5310

## Programs Majors

- Art History, B.A.
- Studio Art, B.A.

## Minors

- Art History, Minor
- Studio Art, Minor

## Courses Art (ART)

*All studio art courses 200 and above and 110A-H may be repeated.*

*Prerequisites may be waived with permission of instructor. All studio art courses may be taken with permission of instructor.*

### ART 101. Engaging with Art. (1.5 h)

An opportunity to experience and reflect analytically on the arts in the cultural and intellectual life at Wake Forest, with an emphasis on art exhibitions, lectures, and visiting artist talks. Pass/fail only. May not be repeated.

### ART 103. History of Western Art. (3 h)

The study of visual arts of Europe and America as they relate to history, religion, and the ideas that have shaped Western culture. Explores masterpieces from the ancient world to the present. (D)

### ART 104. Topics in World Art. (3 h)

An examination of the visual arts in selected world cultures, with discussions of techniques, styles, broader cultural contexts, and confrontations with varying traditions. Topics may include one or more of the following: the arts of China, Japan, India, Pakistan, Bangladesh, Africa, Islamic cultures, or the indigenous cultures of the Americas. (CD, D)

### ART 105. History of World Architecture. (3 h)

Examines architectural monuments in selected world cultures with discussions of the planning, siting, design, construction, patronage, historical impact, and broader cultural context. (CD, D)

### ART 110. Topics in Studio Art. (1-3 h)

Studio art courses as determined by individual instructors. (D only if taken for 3h).

### ART 111. Introduction to Studio Art Fundamentals. (3 h)

Introduces elements and principles of visual language through hands-on experimentation and critical thinking. (D)

### ART 112. Introduction to Painting. (3 h)

Introduces the fundamentals of the contemporary practice of oil painting. No prior painting experience required, although prior studio art experience is recommended. (D)

### ART 113. Drawing with Digital Integration. (3 h)

Introduces principles of art and drawing with integration of digital media. Broadens the scope of studio exploration and critical thinking. Introduces raster and vector graphics software. (D)

### ART 114. Introduction to Film and Video Art. (3 h)

Introduces historical, aesthetic, and technical principles of contemporary video art and film production. Students will work in groups to produce and experimental film and work individually to create a video that focuses on a personal story. (D)

### ART 115. Introduction to Sculpture. (3 h)

Introduces basic sculptural styles and multimedia, with emphasis on contemporary concepts. Prior studio experience is recommended. (D)

### ART 117. Introduction to Printmaking. (3 h)

Introduces one or more of the following major divisions of fine art printmaking: relief (woodcuts and linoleum cuts), intaglio (hand engraving and acid etching methods on copper), lithography from limestone slabs, monotype. (D)

### ART 118. Introduction to Drawing. (3 h)

Drawing fundamentals emphasizing composition, value, line, and form. (D)

### ART 119. Introduction to Darkroom Photography. (3 h)

An introduction to designing, processing and critiquing black and white photographs, including 35mm camera techniques and lighting. (D)

### ART 120. Introduction to Digital Photography. (3 h)

An introduction to designing, processing, and critiquing digital images printed with digital media. Includes camera techniques and lighting. (Digital SLR camera required) (D)

### ART 121. Design Studio: Ethics and Aesthetics. (3 h)

Addresses diverse social, environmental, and economic problems through the design of specific objects and environments in a collaborative studio. A variety of approaches to design development are covered, along with prototyping, testing, and presentation. (D)

**ART 122. Design Studio: Visualization of Ideas. (3 h)**

Employing a variety of different image generating techniques, students produce visual representations which communicate content based upon specific assigned subjects. Imaging methods may include illustration, typography, photography, video etc. as determined by the instructor. (D)

**ART 198. Study Abroad - Art History. (3 h)**

Courses in the history of art associated with Wake Forest study abroad programs. Elective credit only.

**ART 199. International Studies in Art. (1-4 h)**

Offered by art department faculty in locations outside of the United States, on specific topics in art history or studio art. (D only if taken for 3h or 4h). May be repeated when content differs.

**ART 203. Islamic Art and Architecture. (3 h)**

Subjects of study will be drawn from Spain, North Africa, the eastern Mediterranean, Iran, Central Asia, and India, and will focus on selected periods from 650 to the present. (CD, D)

**ART 204. South Asian Art and Architecture. (3 h)**

Topics range from the material culture of the Indus Valley civilization to the art of contemporary South Asia. (CD, D)

**ART 205. The Architecture of Devotion in South Asia. (3 h)**

Explores architecture associated with the major religions of South Asia, including Buddhism, Hinduism, Islam, Sikhism, and Christianity. Building types include stupas, temples, mosques, shrines, and churches. (CD, D)

**ART 206. Art and Empire: India and Europe, 1500-1900. (3 h)**

Examines artistic exchanges between India and various European powers from c. 1500-1900, beginning with the arrival of the Portuguese in Goa and ending with the British imperial era. Readings include primary sources by European and Indian travelers. (CD, D)

**ART 207. Building Empire: Early Modern Islamic Architecture. (3 h)**

Examines Ottoman, Mughal, and Safavid architecture. Topics include imperial palaces, mosques, and mausoleums; the capital cities of Istanbul, Isfahan, and Delhi; royal court culture; and cultural exchanges with European powers. (CD, D)

**ART 208. Ottoman Art and Architecture. (3 h)**

Examines the visual culture of the Ottoman empire in Turkey, the Balkans, the Eastern Mediterranean, and North Africa. Explores imperial architecture; the history of Istanbul; arts of the royal court; cultural exchanges with other world powers; and Ottoman-inspired visual culture in the modern and contemporary periods. (CD, D)

**ART 209. Special Topics in Art. (1-3 h)**

Variable topics in art. Course can be repeated if topic differs.

**ART 210. Topics in Studio Art. (1-4 h)**

Used to designate studio art courses taken at other institutions. May be repeated.

**ART 211. Intermediate Drawing. (4 h)**

Practice and refinement of drawing skills. Emphasis on concept development. P-ART 118 or POI.

**ART 212. Painting II. (4 h)**

Continuation of ART 112 with concentrated emphasis on conceptual development and technical exploration. P-ART 112 or POI.

**ART 213. Painting III. (4 h)**

An individualized course of study with emphasis on refining the skills and concepts developed in Painting II. P-ART 212 or POI.

**ART 214. Film and Video Art: Site Specific. (4 h)**

Continues the historical, aesthetic, and technical exploration of contemporary film and video art production. Students will produce multi-channel video projects that interact with a physical space. P-ART 114 or POI.

**ART 215. Public Art. (4 h)**

Covers art that is sited in the public realm. Exercises with various sites, materials, and audiences, will culminate in a public project. P-ART 115 or POI.

**ART 216. Sculpture Fabrication. (4 h)**

Fabrication of small-scale sculpture using wood, fabric, and metal. Projects stress craftsmanship and imagination. P-ART 115 or POI.

**ART 217. Intermediate Printmaking. (4 h)**

Explorations of multiple-surface and mixed media printmaking methods involving relief, intaglio, and lithography. Color printing methods are explored in the atelier tradition. Strong emphasis on idea development and image generation. P - ART 117 or POI.

**ART 218. Life Drawing. (4 h)**

Introduction to drawing the human figure. May be repeated once. P-ART 118 or POI.

**ART 219. Darkroom Photography. (4 h)**

Further exploration of traditional black and white photography, with an emphasis on alternative processes, camera techniques, aesthetic and critical issues to increase the understanding of the contemporary photographic image. P-ART 119 or 120 or POI.

**ART 221. Advanced Drawing. (4 h)**

Development of a project or series of art works with attention to methodology and material selection. P-ART 211 or POI.

**ART 222. Advanced Painting. (4 h)**

A course of individual study with faculty guidance focused on developing a body of work for exhibition. Will cover various aspects of professional practice including artist statements and proposals, and portfolio development. P-ART 212 or POI.

**ART 224. Film and Video Art: Cyberspace. (4 h)**

Continues the historical, aesthetic, and technical exploration of contemporary film and video art production. Students will produce multi-channel video projects that interact with cyberspace. P-ART 114 or POI.

**ART 225. Bodies and Objects. (4 h)**

This course will explore the social and psychological ramifications of making objects based on the body through casting and other techniques. P-ART 115 or POI.

**ART 226. Installation Art. (4 h)**

Exercises to develop an understanding of material, process, and audience as they relate to contemporary art. The major projects for the course are an installation and a design project. P-ART 115 or POI.

**ART 227. Advanced Printmaking. (4 h)**

Advanced development of printmaking techniques with deeper focus on the unique quality of specific processes. Selected technical concentrations are invited. P - ART 217 or POI.

**ART 228. Film and Video Art: Theatre Works. (4 h)**

Continues the historical, aesthetic, and technical exploration of contemporary film and video art production. Students will produce single-channel film and video projects for theatre viewing. P-ART 114 or POI.

**ART 229. Digital Photography. (4 h)**

Further exploration in designing, printing, and critiquing digital photographs, includes lighting and digital camera techniques. P-ART 119 or 120 or POI.



**ART 230. Spanish Art and Architecture. (3 h)**

Study of the development and uniqueness of Spanish art and architecture within the framework of Mediterranean and Western art in general. Special focus on works viewed during group tours around Spain. Counts as an elective for the Spanish major. Offered in Salamanca.

**ART 231. American Visual Arts. (3 h)**

American art and culture from the Colonial period to 1900 in terms of changing aesthetic standards, social, and historical developments. Includes fine arts, folk arts, material culture, and mass media. (D)

**ART 233. American Architecture. (3 h)**

Discussion-based course examining American architecture from 1650 to the present. (D)

**ART 234. British Art: Nation, Empire, and Identity. (3 h)**

Examines the central role of art and design in forming national identity in Britain, from Henry VIII to present. Topics include the monarchy and art patronage; the country house; exploration and empire building; political and industrial revolutions; debates about modernity. (D)

**ART 235. Arts of London. (3 h)**

A course focused on the collections, exhibits, and architecture of London. The focus of the course will vary depending upon the specialty of the instructor and specific exhibits on view. Offered in London. (D)

**ART 237. Street Photography. (4 h)**

Using digital cameras, the computer and ink jet printers, students examine the creative, social, and critical aspects of contemporary, fine art, photographic image making. Emphasis will be placed on the genre of Street Photography. P-ART 119 or 120 or POI.

**ART 239. Photography and the Handmade Book. (4 h)**

Explores the editing and sequencing of photographic images to direct the audience through the intimate experience of viewing the handmade book in conjunction with the research and discussion of historical and contemporary bookmaking techniques. P-ART 119 or 120 or POI.

**ART 240. Ancient American Art and Architecture. (3 h)**

Topics dealing with the material remains of the civilizations of North, Central, and South America prior to European contact. (CD, D)

**ART 241. Ancient Art and Architecture. (3 h)**

Surveys the major monuments of the ancient world, from prehistory through Late Antiquity, including Mesopotamian, Egyptian, Greek, and Roman works of art and architecture. (D)

**ART 242. Masters and Masterpieces of Spanish Art. (3 h)**

The history of Spanish art and architecture from the 16th century to the present. Special attention to masterpieces made for the Church and court. Counts as an elective for the Spanish major. Offered in Salamanca. (D)

**ART 244. Greek Art and Architecture. (3 h)**

Explores the art and architecture of ancient Greece, from the prehistoric Aegean through the Hellenistic period. (D)

**ART 245. Art and Architecture of the Roman World. (3 h)**

Examines the art and architecture of the ancient Roman world, including Europe, North Africa, and the Near East, from pre-Roman Italy through the period of Late Antiquity and the rise of Christianity. (D)

**ART 246. Byzantine Art and Architecture. (3 h)**

Explores the art and architecture of the Mediterranean world from the foundation of Constantinople as the New Rome in the 4th century until the fall of the Byzantine Empire to the Ottoman Turks in 1453. (D)

**ART 249. The Arts of Medieval Spain. (3 h)**

Examines the visual culture of medieval Spain from the "barbarian" invasions of Late Antiquity through the Islamic period and the Christian Reconquista. Addresses works from architecture to the minor arts, with particular attention to the interactions among their Christian, Muslim, and Jewish makers. (CD, D)

**ART 250. Medieval Art and Architecture. (3 h)**

Surveys the major monuments of the medieval world, from the 4th to 15th centuries, including Byzantine, Islamic, and European works of art and architecture. (D)

**ART 252. Romanesque Art and Architecture. (3 h)**

Explores art and architecture from the Carolingian Renaissance through the 12th century. (D)

**ART 253. The Gothic Cathedral. (3 h)**

The character and evolution of Gothic cathedrals and the sculpture, stained glass, metalworks, and paintings designed for them. (D)

**ART 254. Luxury Arts in the Middle Ages. (3 h)**

Medieval illuminated manuscripts and precious objects made of gold, silver, ivory, enamel, and other luxury materials are the subjects of this course. (D)

**ART 258. The Printed Image in Early Modern Europe. (3 h)**

Technical and artistic development of prints, and the information revolution they brought about. Prints by Durer, Rembrandt, and others. Students will curate an exhibit from the WFU Print Collection. (D)

**ART 259. The History of Photography. (3 h)**

A historical survey of photography from its moment of invention in the 1830s to the present. Students will consider technological shifts—including digital and social media—and the ways photography crosses cultural borders, whether scientific, legal, documentary, or artistic. (D)

**ART 260. Classics of World Cinema. (3 h)**

Selected masterpieces of world film 1930-1970. Emphasizes developing skills for viewing, discussing, and writing about motion pictures as visual and dramatic art. Students must register for both 260 and 260L. (D)

**ART 260L. Classics of World Cinema Lab. (0 h)**

Group film screening.

**ART 261. Topics in Film History. (3 h)**

Variable topics in film history, including genres, major directors, regional or national cinemas, and historical periods. Course may be repeated if topic is different. (D)

**ART 265. Art and Life in Renaissance Europe. (3 h)**

Cross-cultural developments in the visual arts in Italy, Flanders, and other European centers in the 15th and 16th century. Topics include the status of artists; the use of art in the home, the church, and political arena; the economics of art; and art used to disseminate discoveries about science and world explorations. (D)

**ART 266. Art in the Age of Giotto, Dante, and the Plague. (3 h)**

Developments in Italian painting, sculpture, and architecture in the 14th century with special attention to the new naturalism of Giotto and the effects of the Great Plague of 1348 on the arts. (D)

**ART 267. Early Italian Renaissance Art. (3 h)**

The development of art and architecture in Italy in the 15th century. Special attention is given to the works of Donatello, Botticelli, and Leonardo da Vinci. (D)

**ART 268. 16th Century Art in Italy: Magnificence and Reform. (3 h)**

The development of art and architecture in Rome, Florence, Venice and other cities. Artists studied include Michelangelo, Raphael, and Titian. (D)



**ART 269. Venetian Renaissance Art. (3 h)**

A survey of the art of the Venetian Renaissance, with slide lectures and museum visits. Offered in Venice. (D)

**ART 270. Northern Renaissance Art. (3 h)**

A survey of painting, sculpture, and printmaking in Northern Europe from the mid-14th century through the 16th century. (D)

**ART 272. 17th-Century European Art: Politics, Power and Patronage. (3 h)**

Examines art and architecture in Baroque Europe in its religious and social context. Artists studied include Caravaggio, Rubens, and Rembrandt. (D)

**ART 273. 18th-Century European Art: the Birth of the Modern World. (3 h)**

Examines cultural production in Europe, c.1680-1800 with particular attention to fine art, and situates the art of the period within a cultural and historical framework. (D)

**ART 274. 17th-Century Dutch Painting. (3 h)**

Survey of art, artists and cultural issues of the Dutch Golden Age. Artists include Rembrandt, Hals, Steen and Vermeer.(D)

**ART 276. Austrian Art and Architecture. (3 h)**

Study of the development of Austrian art and architecture and its relationship to European periods and styles. Includes visits to sites and museums. Offered in Vienna.

**ART 281. 19th-Century European Art: From Enlightenment to Abstraction. (3 h)**

Considers artistic production of Europe from the French Revolution to the discussion of abstraction in the early 20th century. Examines the notion of modernity as a cultural ideal and the development of avant-gardes in the interplay between art, society, politics and economics. (D)

**ART 282. Modern Art in Europe and the Americas. (3 h)**

A survey of European, American, and Latin American art from the years 1890 to 1945 that focuses on how art intertwines with the expansion of capitalism, two world wars, and colonialism. (D)

**ART 284. Post War/Cold War: Global Art 1945-1990. (3 h)**

A global history of art during the Cold War and its immediate aftermath, 1945-1990. Discussion will focus on the ways that art both underpinned and resisted the Cold War's rigid political positions. (CD, D)

**ART 285. Global Contemporary Art. (3 h)**

A global perspective on contemporary artistic trends since 1990, including discussions about art criticism, exhibitions and the changing art world. (CD,D)

**ART 286. Topics in Art and Architectural History. (3 h)**

Variable topics in art and architectural history, such as historical periods, geographic regions, or specific media. Course can be repeated if topic differs.(D)

**ART 287H. Honors in Art History. (3 h)****ART 287S. Honors in Studio Art. (4 h)****ART 288. Modern Architecture. (3 h)**

A survey of European and American architecture from 1900 to the present. (D)

**ART 290. Printmaking Workshop. (4 h)**

A workshop course exploring relief, intaglio, lithography, and monotype techniques. Open to students at any skill level. Offered in the summer.

**ART 291H. Individual Study. (1.5, 3 h)**

Independent Study in Art History with faculty guidance. P - POI.

**ART 291S. Individual Study. (1-4 h)**

Independent Study in Studio Art with faculty guidance. P - POI.

**ART 293. Practicum. (3, 4 h)**

Internships in local cultural organizations, to be arranged and approved in advance by the art department. Pass/Fail. P-POI.

**ART 295. Studio Seminar. (1-4 h)**

Offered by members of the faculty or visiting faculty on topics of their choice and related studio activities. P-POI.

**ART 297. Management in the Visual Arts. (3 h)**

Provides art students with the skills, experiences, and frameworks for understanding the role that the visual arts play within the national and international economy. Also listed as ENT 312. P-Junior or senior standing and POI.

**ART 298. Contemporary Art and Criticism. (3 h)**

This discussion-based class examines key works of recent art in a sustained and critical manner. The course is associated with the Student Union Buying trip.

**ART 331. American Foundations. (3 h)**

An interdisciplinary study of American art offered through the Honors program. Also listed as HON 393, 394.

**ART 351. Topics in Gender and Art. (3 h)**

Seminar that addresses a range of topics which intersect gender and artistic practice in various cultures and historical periods. Attention will be paid to the role of art in formulating, subverting, or resiting gender norms.

**ART 386. Advanced Topics in Art and Architectural History. (3 h)**

Variable topics in art and architectural history focusing on specialized themes, periods, regions, or media. Course may be repeated if topic differs.

**ART 394. Issues in Art History. (4 h)**

A discussion-based course focusing on critical theory and methods employed by art historians working today as well as by some of the founding figures of the discipline. Intended for art history majors. P-Non-majors, POI.

**ART 396. Art History Seminar. (4 h)**

Focused readings, discussion, and research on a topic selected by members of the faculty. May be repeated. P-One course in art history or POI.

**ART 397. Advanced Topics In Studio Art. (1-4 h)**

Focus on selected studio projects, critical readings, and discussions on topics selected by members of department faculty. P-POI.

## Faculty

**Chair and Professor** David Finn

**Charlotte C. Weber Professor of Art** David M. Lubin

**Professor** David L. Faber

**Hoak Family Fellow and Associate Professor** Joel Tauber

**Associate Professors** John J. Curley, Chanchal Dadlani, Morna O'Neill, John R. Pickel

**Assistant Professor** Merih Danali

**Teaching Professors** Jennifer Gentry, Leigh Ann Hallberg

**Visiting Assistant Professor** Josè deVera

**Adjunct Assistant Professor** Bryan Ellis

**Teacher-Scholar Postdoctoral Fellow** Allison Kim, Nikki Moore

**Lecturers** Rachel Barnes, (London), Maria A. Chiari (Venice)

**Adjunct Lecturer** Kristen Haaf

**Research Professor** Page H. Laughlin

# Art History, B.A.

## Requirements

At least eight courses in art history and two courses in studio art are required.

Code	Title	Hours
<b>Required Major Courses</b>		
ART 103	History of Western Art	3
or ART 105	History of World Architecture	
ART 394	Issues in Art History	4
Select one Art History Seminar		
Select two Studio Art courses		6
Or one Studio Art course and one course that combines art history and studio art or offers direct experience with works of art (for example ART 199, 293, 297)		
Select one Art History course in each of the following: *		
A course with a primary focus before 1400		
A course with a primary focus between 1400 and 1800		
A course with a primary focus after 1800		
Select one course from a non-western artistic tradition *		
Submit a portfolio of written work **		

\* The same course can be used to fulfill both of these requirements.

\*\* For precise instructions, contact the art department.

## Art History Courses

Code	Title	Hours
ART 103	History of Western Art	3
ART 104	Topics in World Art	3
ART 105	History of World Architecture	3
ART 198	Study Abroad - Art History	3
ART 199	International Studies in Art	1-4
ART 203	Islamic Art and Architecture	3
ART 204	South Asian Art and Architecture	3
ART 205	The Architecture of Devotion in South Asia	3
ART 206	Art and Empire: India and Europe, 1500-1900	3
ART 207	Building Empire: Early Modern Islamic Architecture	3
ART 208	Ottoman Art and Architecture	3
ART 231	American Visual Arts	3
ART 233	American Architecture	3
ART 234	British Art: Nation, Empire, and Identity	3
ART 235	Arts of London	3
ART 240	Ancient American Art and Architecture	3
ART 241	Ancient Art and Architecture	3
ART 244	Greek Art and Architecture	3
ART 245	Art and Architecture of the Roman World	3
ART 246	Byzantine Art and Architecture	3
ART 249	The Arts of Medieval Spain	3
ART 250	Medieval Art and Architecture	3
ART 252	Romanesque Art and Architecture	3

ART 253	The Gothic Cathedral	3
ART 254	Luxury Arts in the Middle Ages	3
ART 258	The Printed Image in Early Modern Europe	3
ART 259	The History of Photography	3
ART 260	Classics of World Cinema	3
ART 260L	Classics of World Cinema Lab	0
ART 261	Topics in Film History	3
ART 265	Art and Life in Renaissance Europe	3
ART 266	Art in the Age of Giotto, Dante, and the Plague	3
ART 267	Early Italian Renaissance Art	3
ART 268	16th Century Art in Italy: Magnificence and Reform	3
ART 269	Venetian Renaissance Art	3
ART 270	Northern Renaissance Art	3
ART 272	17th-Century European Art: Politics, Power and Patronage	3
ART 273	18th-Century European Art: the Birth of the Modern World	3
ART 274	17th-Century Dutch Painting	3
ART 276	Austrian Art and Architecture	3
ART 281	19th-Century European Art: From Enlightenment to Abstraction	3
ART 282	Modern Art in Europe and the Americas	3
ART 284	Post War/Cold War: Global Art 1945-1990	3
ART 285	Global Contemporary Art	3
ART 286	Topics in Art and Architectural History	3
ART 288	Modern Architecture	3
ART 298	Contemporary Art and Criticism	3
ART 331	American Foundations	3
ART 351	Topics in Gender and Art	3
ART 386	Advanced Topics in Art and Architectural History	3
ART 394	Issues in Art History	4
ART 396	Art History Seminar	4

## Studio Art Courses

All studio art courses 200 and above and 110 may be repeated. Prerequisites may be waived with permission of instructor. All studio art courses may be taken with permission of instructor.

Code	Title	Hours
ART 110	Topics in Studio Art	1-3
ART 111	Introduction to Studio Art Fundamentals	3
ART 112	Introduction to Painting	3
ART 113	Drawing with Digital Integration	3
ART 114	Introduction to Film and Video Art	3
ART 115	Introduction to Sculpture	3
ART 117	Introduction to Printmaking	3
ART 118	Introduction to Drawing	3
ART 119	Introduction to Darkroom Photography	3
ART 120	Introduction to Digital Photography	3
ART 121	Design Studio: Ethics and Aesthetics	3
ART 122	Design Studio: Visualization of Ideas	3

ART 210	Topics in Studio Art	1-4
ART 211	Intermediate Drawing	4
ART 212	Painting II	4
ART 213	Painting III	4
ART 214	Film and Video Art: Site Specific	4
ART 215	Public Art	4
ART 216	Sculpture Fabrication	4
ART 217	Intermediate Printmaking	4
ART 218	Life Drawing	4
ART 219	Darkroom Photography	4
ART 221	Advanced Drawing	4
ART 222	Advanced Painting	4
ART 224	Film and Video Art: Cyberspace	4
ART 225	Bodies and Objects	4
ART 226	Installation Art	4
ART 227	Advanced Printmaking	4
ART 228	Film and Video Art: Theatre Works	4
ART 229	Digital Photography	4
ART 239	Photography and the Handmade Book	4
ART 290	Printmaking Workshop	4
ART 295	Studio Seminar	1-4
ART 397	Advanced Topics In Studio Art	1-4

## Honors

Qualified students in both the studio and art history areas may ask to participate in the department's honors program. To be graduated with the designation "Honors in Art," students must execute a written project or create a body of work; the results of their efforts must be presented and defended before a committee of department faculty. Interested students should consult any member of the department for additional information concerning the requirements for this program.

## Studio Art, B.A. Requirements

Eight courses in studio art and two courses in art history are required.

Code	Title	Hours
<b>Required Major Courses</b>		
Select three of the four following:		9-12
	Printmaking, Drawing, or 2D Design	
	Painting or ART 111	
	Photography or Film/Video	
	Sculpture or 3D Design *	
Select two Art History courses		
Or one Art History course and one course that combines art history and studio art or offers direct experience with works of art (for example ART 199, 293, 297)		
Submit a portfolio of visual work **		

\* Sculpture or 3D Design is required as one of the three areas

\*\* For precise instructions, contact the art department.

For concentration the studio major requires a three-course sequence in one core area of study. The remainder of the courses for the major may

be fulfilled by courses in any studio area. Studio courses at the 200 level may be repeated once. Studio art majors who are serious about pursuing a career in art are encouraged to take as many art courses as possible in consultation with their advisor.

Students interested in enrolling in ART 291S must have taken at least one regular course in studio art in the Art Department. An application must be presented to the studio faculty well before advising and registration, the semester before taking the class. Please see the Individual Study Guidelines in the Art Office or speak to a studio faculty member for more details.

## Studio Art Courses

All studio art courses 200 and above and 110 may be repeated. Prerequisites may be waived with permission of instructor. All studio art courses may be taken with permission of instructor.

Code	Title	Hours
ART 110	Topics in Studio Art	1-3
ART 111	Introduction to Studio Art Fundamentals	3
ART 112	Introduction to Painting	3
ART 113	Drawing with Digital Integration	3
ART 114	Introduction to Film and Video Art	3
ART 115	Introduction to Sculpture	3
ART 117	Introduction to Printmaking	3
ART 118	Introduction to Drawing	3
ART 119	Introduction to Darkroom Photography	3
ART 120	Introduction to Digital Photography	3
ART 121	Design Studio: Ethics and Aesthetics	3
ART 122	Design Studio: Visualization of Ideas	3
ART 210	Topics in Studio Art	1-4
ART 211	Intermediate Drawing	4
ART 212	Painting II	4
ART 213	Painting III	4
ART 214	Film and Video Art: Site Specific	4
ART 215	Public Art	4
ART 216	Sculpture Fabrication	4
ART 217	Intermediate Printmaking	4
ART 218	Life Drawing	4
ART 219	Darkroom Photography	4
ART 221	Advanced Drawing	4
ART 222	Advanced Painting	4
ART 224	Film and Video Art: Cyberspace	4
ART 225	Bodies and Objects	4
ART 226	Installation Art	4
ART 227	Advanced Printmaking	4
ART 228	Film and Video Art: Theatre Works	4
ART 229	Digital Photography	4
ART 239	Photography and the Handmade Book	4
ART 290	Printmaking Workshop	4
ART 295	Studio Seminar	1-4
ART 397	Advanced Topics In Studio Art	1-4

## Art History Courses

Code	Title	Hours
ART 103	History of Western Art	3
ART 104	Topics in World Art	3
ART 105	History of World Architecture	3
ART 198	Study Abroad - Art History	3
ART 199	International Studies in Art	1-4
ART 203	Islamic Art and Architecture	3
ART 204	South Asian Art and Architecture	3
ART 205	The Architecture of Devotion in South Asia	3
ART 206	Art and Empire: India and Europe, 1500-1900	3
ART 207	Building Empire: Early Modern Islamic Architecture	3
ART 208	Ottoman Art and Architecture	3
ART 231	American Visual Arts	3
ART 233	American Architecture	3
ART 234	British Art: Nation, Empire, and Identity	3
ART 235	Arts of London	3
ART 240	Ancient American Art and Architecture	3
ART 241	Ancient Art and Architecture	3
ART 244	Greek Art and Architecture	3
ART 245	Art and Architecture of the Roman World	3
ART 246	Byzantine Art and Architecture	3
ART 249	The Arts of Medieval Spain	3
ART 250	Medieval Art and Architecture	3
ART 252	Romanesque Art and Architecture	3
ART 253	The Gothic Cathedral	3
ART 254	Luxury Arts in the Middle Ages	3
ART 258	The Printed Image in Early Modern Europe	3
ART 259	The History of Photography	3
ART 260	Classics of World Cinema	3
ART 260L	Classics of World Cinema Lab	0
ART 261	Topics in Film History	3
ART 265	Art and Life in Renaissance Europe	3
ART 266	Art in the Age of Giotto, Dante, and the Plague	3
ART 267	Early Italian Renaissance Art	3
ART 268	16th Century Art in Italy: Magnificence and Reform	3
ART 269	Venetian Renaissance Art	3
ART 270	Northern Renaissance Art	3
ART 272	17th-Century European Art: Politics, Power and Patronage	3
ART 273	18th-Century European Art: the Birth of the Modern World	3
ART 274	17th-Century Dutch Painting	3
ART 276	Austrian Art and Architecture	3
ART 281	19th-Century European Art: From Enlightenment to Abstraction	3
ART 282	Modern Art in Europe and the Americas	3
ART 284	Post War/Cold War: Global Art 1945-1990	3
ART 285	Global Contemporary Art	3

ART 286	Topics in Art and Architectural History	3
ART 288	Modern Architecture	3
ART 298	Contemporary Art and Criticism	3
ART 331	American Foundations	3
ART 351	Topics in Gender and Art	3
ART 386	Advanced Topics in Art and Architectural History	3
ART 394	Issues in Art History	4
ART 396	Art History Seminar	4

## Honors

Qualified students in both the studio and art history areas may ask to participate in the department's honors program. To be graduated with the designation "Honors in Art," students must execute a written project or create a body of work; the results of their efforts must be presented and defended before a committee of department faculty. Interested students should consult any member of the department for additional information concerning the requirements for this program.

## Art History, Minor Requirements

Code	Title	Hours
Select four courses in Art History		
Or three Art History courses and one course that combines art history and studio art or offers direct experience with works of art (for example ART 199, 293, 297)		
Select one course in Studio Art		

Students may double minor in art history and studio art, but must complete all minor requirements of each.

All courses in the minor must be three or more semester hours.

## Art History Courses

Code	Title	Hours
ART 103	History of Western Art	3
ART 104	Topics in World Art	3
ART 105	History of World Architecture	3
ART 198	Study Abroad - Art History	3
ART 199	International Studies in Art	1-4
ART 203	Islamic Art and Architecture	3
ART 204	South Asian Art and Architecture	3
ART 205	The Architecture of Devotion in South Asia	3
ART 206	Art and Empire: India and Europe, 1500-1900	3
ART 207	Building Empire: Early Modern Islamic Architecture	3
ART 208	Ottoman Art and Architecture	3
ART 231	American Visual Arts	3
ART 233	American Architecture	3
ART 234	British Art: Nation, Empire, and Identity	3
ART 235	Arts of London	3
ART 240	Ancient American Art and Architecture	3
ART 241	Ancient Art and Architecture	3

ART 244	Greek Art and Architecture	3
ART 245	Art and Architecture of the Roman World	3
ART 246	Byzantine Art and Architecture	3
ART 249	The Arts of Medieval Spain	3
ART 250	Medieval Art and Architecture	3
ART 252	Romanesque Art and Architecture	3
ART 253	The Gothic Cathedral	3
ART 254	Luxury Arts in the Middle Ages	3
ART 258	The Printed Image in Early Modern Europe	3
ART 259	The History of Photography	3
ART 260	Classics of World Cinema	3
ART 260L	Classics of World Cinema Lab	0
ART 261	Topics in Film History	3
ART 265	Art and Life in Renaissance Europe	3
ART 266	Art in the Age of Giotto, Dante, and the Plague	3
ART 267	Early Italian Renaissance Art	3
ART 268	16th Century Art in Italy: Magnificence and Reform	3
ART 269	Venetian Renaissance Art	3
ART 270	Northern Renaissance Art	3
ART 272	17th-Century European Art: Politics, Power and Patronage	3
ART 273	18th-Century European Art: the Birth of the Modern World	3
ART 274	17th-Century Dutch Painting	3
ART 276	Austrian Art and Architecture	3
ART 281	19th-Century European Art: From Enlightenment to Abstraction	3
ART 282	Modern Art in Europe and the Americas	3
ART 284	Post War/Cold War: Global Art 1945-1990	3
ART 285	Global Contemporary Art	3
ART 286	Topics in Art and Architectural History	3
ART 288	Modern Architecture	3
ART 298	Contemporary Art and Criticism	3
ART 331	American Foundations	3
ART 351	Topics in Gender and Art	3
ART 386	Advanced Topics in Art and Architectural History	3
ART 394	Issues in Art History	4
ART 396	Art History Seminar	4

## Studio Art Courses

All studio art courses 200 and above and 110 may be repeated. Prerequisites may be waived with permission of instructor. All studio art courses may be taken with permission of instructor.

Code	Title	Hours
ART 110	Topics in Studio Art	1-3
ART 111	Introduction to Studio Art Fundamentals	3
ART 112	Introduction to Painting	3
ART 113	Drawing with Digital Integration	3
ART 114	Introduction to Film and Video Art	3
ART 115	Introduction to Sculpture	3

ART 117	Introduction to Printmaking	3
ART 118	Introduction to Drawing	3
ART 119	Introduction to Darkroom Photography	3
ART 120	Introduction to Digital Photography	3
ART 121	Design Studio: Ethics and Aesthetics	3
ART 122	Design Studio: Visualization of Ideas	3
ART 210	Topics in Studio Art	1-4
ART 211	Intermediate Drawing	4
ART 212	Painting II	4
ART 213	Painting III	4
ART 214	Film and Video Art: Site Specific	4
ART 215	Public Art	4
ART 216	Sculpture Fabrication	4
ART 217	Intermediate Printmaking	4
ART 218	Life Drawing	4
ART 219	Darkroom Photography	4
ART 221	Advanced Drawing	4
ART 222	Advanced Painting	4
ART 224	Film and Video Art: Cyberspace	4
ART 225	Bodies and Objects	4
ART 226	Installation Art	4
ART 227	Advanced Printmaking	4
ART 228	Film and Video Art: Theatre Works	4
ART 229	Digital Photography	4
ART 239	Photography and the Handmade Book	4
ART 290	Printmaking Workshop	4
ART 295	Studio Seminar	1-4
ART 397	Advanced Topics In Studio Art	1-4

## Studio Art, Minor

### Requirements

Code	Title	Hours
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Select four courses in Studio Art

Or three Studio Art courses and one course that combines art history and studio art or offers direct experience with works of art (for example ART 199, 293, 297)

Select one course in Art History

Students may double minor in art history and studio art, but must complete all minor requirements of each.

All courses in the minor must be three or more semester hours.

### Studio Art Courses

All studio art courses 200 and above and 110 may be repeated. Prerequisites may be waived with permission of instructor. All studio art courses may be taken with permission of instructor.

Code	Title	Hours
ART 110	Topics in Studio Art	1-3
ART 111	Introduction to Studio Art Fundamentals	3
ART 112	Introduction to Painting	3
ART 113	Drawing with Digital Integration	3



ART 114	Introduction to Film and Video Art	3
ART 115	Introduction to Sculpture	3
ART 117	Introduction to Printmaking	3
ART 118	Introduction to Drawing	3
ART 119	Introduction to Darkroom Photography	3
ART 120	Introduction to Digital Photography	3
ART 121	Design Studio: Ethics and Aesthetics	3
ART 122	Design Studio: Visualization of Ideas	3
ART 210	Topics in Studio Art	1-4
ART 211	Intermediate Drawing	4
ART 212	Painting II	4
ART 213	Painting III	4
ART 214	Film and Video Art: Site Specific	4
ART 215	Public Art	4
ART 216	Sculpture Fabrication	4
ART 217	Intermediate Printmaking	4
ART 218	Life Drawing	4
ART 219	Darkroom Photography	4
ART 221	Advanced Drawing	4
ART 222	Advanced Painting	4
ART 224	Film and Video Art: Cyberspace	4
ART 225	Bodies and Objects	4
ART 226	Installation Art	4
ART 227	Advanced Printmaking	4
ART 228	Film and Video Art: Theatre Works	4
ART 229	Digital Photography	4
ART 239	Photography and the Handmade Book	4
ART 290	Printmaking Workshop	4
ART 295	Studio Seminar	1-4
ART 397	Advanced Topics In Studio Art	1-4

## Art History Courses

Code	Title	Hours
ART 103	History of Western Art	3
ART 104	Topics in World Art	3
ART 105	History of World Architecture	3
ART 198	Study Abroad - Art History	3
ART 199	International Studies in Art	1-4
ART 203	Islamic Art and Architecture	3
ART 204	South Asian Art and Architecture	3
ART 205	The Architecture of Devotion in South Asia	3
ART 206	Art and Empire: India and Europe, 1500-1900	3
ART 207	Building Empire: Early Modern Islamic Architecture	3
ART 208	Ottoman Art and Architecture	3
ART 231	American Visual Arts	3
ART 233	American Architecture	3
ART 234	British Art: Nation, Empire, and Identity	3
ART 235	Arts of London	3
ART 240	Ancient American Art and Architecture	3
ART 241	Ancient Art and Architecture	3

ART 244	Greek Art and Architecture	3
ART 245	Art and Architecture of the Roman World	3
ART 246	Byzantine Art and Architecture	3
ART 249	The Arts of Medieval Spain	3
ART 250	Medieval Art and Architecture	3
ART 252	Romanesque Art and Architecture	3
ART 253	The Gothic Cathedral	3
ART 254	Luxury Arts in the Middle Ages	3
ART 258	The Printed Image in Early Modern Europe	3
ART 259	The History of Photography	3
ART 260	Classics of World Cinema	3
ART 260L	Classics of World Cinema Lab	0
ART 261	Topics in Film History	3
ART 265	Art and Life in Renaissance Europe	3
ART 266	Art in the Age of Giotto, Dante, and the Plague	3
ART 267	Early Italian Renaissance Art	3
ART 268	16th Century Art in Italy: Magnificence and Reform	3
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ART 281	19th-Century European Art: From Enlightenment to Abstraction	3
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ART 351	Topics in Gender and Art	3
ART 386	Advanced Topics in Art and Architectural History	3
ART 394	Issues in Art History	4
ART 396	Art History Seminar	4

## Biochemistry and Molecular Biology (BMB)

### Interdisciplinary Major

This interdisciplinary Bachelor of Science major, jointly offered by the Departments of Biology and Chemistry, provides a strong foundation in biological chemistry and molecular biology, and related topics at the interface of these two disciplines. The major is designed to build conceptual understanding and practical and critical thinking skills to address current biological, biochemical, and biomedical challenges. A required research experience spanning multiple semesters, culminating in a senior project, will give students strong experimental skills and

provide insight into biochemical and molecular biological experimental approaches and results that demonstrate the function of biological molecules. To graduate with a biochemistry and molecular biology major, students must have a minimum GPA of 2.0 in required and elective BIO, BMB, and CHM courses taken at Wake Forest. At the time of major declaration, students will select a major concentration either in biochemistry or in molecular biology. Policies for transfer credits are set by the biology and chemistry departments, as outlined in their bulletin sections.

#### Contact Information

Biochemistry and Molecular Biology (<https://bmb.wfu.edu/>)  
Wake Downtown Main Office  
Phone 336-702-1926  
e-mail: [bmb@wfu.edu](mailto:bmb@wfu.edu)

## Programs Major

- Biochemistry and Molecular Biology, B.S.

## Courses Biochemistry and Molecular Biology (BMB)

### **BMB 301. Special Topics in Biochemistry and Molecular Biology. (3 h)**

Courses in selected special topics in biochemistry and molecular biology. May be repeated for credit if course content differs. P - POI.

### **BMB 370. Biochemistry I: Macromolecules and Metabolism. (3 h)**

Introduces principles of biochemistry including structure, function, and biosynthesis of biological molecules, analysis of enzyme function and activity, bioenergetics, and regulation of metabolic pathways. Also listed as BIO 370 and CHM 370. P-any two of the following with associated labs: CHM 122 (or CHM 123), CHM 280 or BIO 214; or any two of the following: CHM 122 (or CHM 123), CHM 280, or BIO 265.

### **BMB 371L. Advanced Biochemistry Lab. (1.5 h)**

Emphasizes approaches for isolation and analysis of enzymes. Required for BMB major and the chemistry major with concentration in biochemistry. Recommended for research focused students. Also listed as BIO 371L and CHM 371L. Credit allowed for BIO 370L/CHM 370L, or BMB 371L/BIO 371L/CHM 371L, but not both. P or C-BMB 370/BIO 370/CHM 370.

### **BMB 372. Advanced Molecular Biology. (3 h)**

Presents molecular mechanisms by which stored genetic information is expressed including the mechanisms for and regulation of gene expression, protein synthesis, and genome editing. Emphasizes analysis and interpretation of experimental data from the primary literature. Also listed as BIO 372. P-BIO 213 and 214 and BIO 370/BMB 370/CHM 370 or BIO 265 and BIO 370/BMB 370/CHM 370.

### **BMB 372L. Advanced Molecular Biology Laboratory. (1.5 h)**

Introduces modern methods of molecular biology to analyze and manipulate expression of genes and function of gene products. Also listed as BIO 372L. P or C-BIO 372/CHM 372 or BMB 373/CHM 373.

### **BMB 373. Biochemistry II. (3 h)**

Examines the structure, function, and synthesis of proteins and nucleic acids and includes advanced topics in biochemistry including catalytic mechanisms of enzymes and ribozymes, use of sequence and structure databases, and molecular basis of disease and drug action. Also listed as CHM 373. P-CHM 223 and BIO 370/BMB 370/CHM 370.

### **BMB 376. Biophysical Chemistry. (3 h)**

Fundamentals of physical chemistry applied to biological molecules, including thermodynamics, kinetics, quantum mechanics, and spectroscopy. Emphasizes modern experimental approaches used to analyze biological systems. Also listed as CHM 376. P-CHM 280, BIO/BMB/CHM 370, PHY 114. P or C-MST 112.

### **BMB 381. Epigenetics. (3 h)**

Studies the molecular mechanisms for inheritance of genome modifications. Uses primary literature to explore the environmental and developmental signals that influence epigenetic controls of gene expression and disease. Also listed as BIO 381. P-BIO 213 and 214 or BIO 265.

### **BMB 381L. Epigenetics Laboratory. (1 h)**

Lab provides hands-on experiences with genome editing and molecular genetics to address the function and expression of genes. Also listed as BIO 381L. P or C-BMB 381 or POI.

### **BMB 382. Molecular Signaling. (3 h)**

Examines the molecular and biochemical mechanisms by which hormones, neurotransmitters, and other signaling molecules act to change growth, development, and physiological and behavioral responses of organisms with a focus on discussion of primary literature. Also listed as BIO 382. P-BIO 213, 214, and BIO 370/BMB 370/CHM 370 or BIO 265 and BIO 370/BMB 370/CHM 370.

### **BMB 383. Genomics. (3 h)**

Examines the architecture, expression, and evolution of genomes. Uses current primary literature to examine the functional and evolutionary dynamics of genomes and the modern analytic techniques used to investigate genome-wide phenomena. Also listed as BIO 383. P-BIO 160 and 160L or CSC 112 or STA 212; and an introductory statistics course such as STA 111, ANT 380, BIO 380, or PSY 311.

### **BMB 383L. Genomics Lab. (1 h)**

Introduces analytic methods and interpretation of genome-wide data through practical tutorials. Also listed as BIO 383L. P or C-BMB 383.

### **BMB 388. Senior Seminar in Biochemistry and Molecular Biology. (1 h)**

Discussion of contemporary research and introduction to the biochemical and molecular biology literature and research skills and approaches. P or C-BMB 370/BIO 370/CHM 370.

### **BMB 390. Biochemistry and Molecular Biology Research Experience. (0-2 h)**

Research experience and written report for off campus or summer research by prearrangement. Pass/Fail option. May be repeated for credit. Summer research for 0 h is pass/fail only.

### **BMB 391. Independent Research. (0.5-2 h)**

Working under the guidance of a faculty member or research staff member, students will conduct an independent research project that involves the collection and analysis of data, and that culminates in a written paper or poster to be submitted to the sponsoring faculty or staff member. P-POI.

**BMB 392. Independent Research. (0.5-2 h)**

Working under the guidance of a faculty member or research staff member, students will conduct an independent research project that involves the collection and analysis of data, and that culminates in a written paper or poster to be submitted to the sponsoring faculty or staff member. P-POI.

**BMB 393. Independent Research. (0.5-2 h)**

Working under the guidance of a faculty member or research staff member, students will conduct an independent research project that involves the collection and analysis of data, and that culminates in a written paper or poster to be submitted to the sponsoring faculty or staff member. P-POI.

**BMB 394. Independent Research. (0.5-2 h)**

Working under the guidance of a faculty member or research staff member, students will conduct an independent research project that involves the collection and analysis of data, and that culminates in a written paper or poster to be submitted to the sponsoring faculty or staff member. P-POI.

**BMB 395. Senior Research Project. (2 h)**

Writing of senior research project or honors thesis. P or C-two of the following: BMB 390/BMB 391/BIO 391/CHM 391, BMB 392/BIO 392/CHM 392.

## Faculty

**Program Coordinator:** Lindsay Comstock

**Charles M. Allen Professor of Biology** Gloria K. Muday

**Professors** Rebecca Alexander, Patricia Dos Santos, Erik C. Johnson

**Associate Professors** Lindsay Comstock, Sarah McDonald Esstman, Ke Zhang

**Assistant Professors** Josh Currie, James B. Pease, Troy Stich

**Assistant Teaching Professor** Diana R. Arnett

**Assistant Director of Microscopy** Heather Brown-Harding

## Biochemistry and Molecular Biology, B.S.

### Requirements

The biochemistry and molecular biology major requires 48 credits of BIO, BMB, or CHM courses, and students will need to take at least two courses from these requirements each semester for adequate progress in the major.

Code	Title	Hours
<b>Required Major Courses</b>		
Broad Foundation in Chemistry: *		
CHM 111 & 111L	College Chemistry I and College Chemistry I Lab	4
CHM 280 & 280L	College Chemistry II and Theory and Methods of Quantitative Analysis Lab	4
CHM 122 & 122L	Organic Chemistry I and Organic Chemistry I Lab	4
or CHM 123 & 123L	Organic Chemistry I Honors and Organic Chemistry I Honors Lab	
CHM 223 & 223L	Organic Chemistry II and Organic Chemistry II Lab	4
Broad Foundation in Biology: *		

BIO 150 & 150L	Biology I and Biology I Lab	4
BIO 160 & 160L	Biology II and Biology II Lab	4
BIO 265	Cellular and Molecular Biology	3

BMB Core Sequence:

BMB 370	Biochemistry I: Macromolecules and Metabolism (Third Year)	3
BMB 372	Advanced Molecular Biology (Third or fourth year)	3
BMB 373	Biochemistry II	3
BMB 371L	Advanced Biochemistry Lab (Third Year)	1.5
BMB 372L	Advanced Molecular Biology Laboratory (Third or fourth year)	1.5
BMB 388	Senior Seminar in Biochemistry and Molecular Biology (Senior year only)	1

The BMB research requirement of two semesters or summers of research fulfilled by enrolling in two of the following courses: BMB 390, BMB 391, BIO 391, CHM 391, BMB 392, BIO 392, or CHM 392. \*\*

BMB 395	Senior Research Project (Senior year only; guided by a faculty member)	2
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Electives (<https://bulletin.wfu.edu/courses-instruction/biochemistry-molecular-biology/bs-biochemistry-molecular-biology/#electives>)

#### Co-Requirements \*\*\*

MST 112	Calculus with Analytic Geometry II	4
PHY 113	General Physics I	4
or PHY 123	General Physics I - Studio Format	
PHY 114	General Physics II	4
or PHY 124	General Physics II - Studio Format	

\* These biology and chemistry core courses should be completed in the first two years of study.

\*\* At least two semesters or summers of research are required for research performed in a laboratory at Wake Forest University or the Wake Forest School of Medicine.

\*\*\* Should also be completed by the end of the third year.

Elective courses must be selected from the following list. For course descriptions, see the relevant department's listing in this publication. Additional elective courses may have been approved since publication of this bulletin. The program coordinator maintains a complete list of all approved elective courses. Students choosing the concentration in molecular biology can take any two from the list, while students choosing the biochemistry concentration must take either BMB 376 or CHM 341 and one other elective.

### Elective Courses

Code	Title	Hours
BMB 301	Special Topics in Biochemistry and Molecular Biology	3
BMB 376	Biophysical Chemistry	3
BMB/BIO 381	Epigenetics	3
BMB/BIO 382	Molecular Signaling	3
BMB/BIO 383	Genomics	3

BIO 317 & 317L	Plant Physiology and Development and Plant Physiology and Development Lab (lab is optional)	3-4
BIO 336 & 336L	Development and Development Lab (lab is optional)	3-4
BIO 360	Metabolic Diseases	3
BIO 362	Immunology	3
BIO 365	Biology of the Cell	3
BIO 367	Virology	3
BIO 368 & 368L	The Cell Biological Basis of Disease and The Cell Biological Basis of Disease Lab (lab is optional)	3-4
BIO 369	Cancer Biology	3
BIO 384	Molecular Evolution	3
BIO 388	Methods in Molecular Genetics	4
CHM 324	Medicinal Chemistry I	3
CHM 334	Chemical Analysis	4
CHM 341	Physical Chemistry I	3
CSC/BIO 385	Bioinformatics	3
CSC/BIO 387	Computational Systems Biology	3
PHY/BIO 307	Biophysics	3
PHY 320	Physics of Biological Macromolecules	3

## Honors

Highly qualified majors may be eligible to graduate with honors in biochemistry and molecular biology if their research project is of sufficient quality. To be awarded the distinction "Honors in Biochemistry and Molecular Biology," a graduating student must have a minimum GPA of 3.0 in all courses and a 3.3 in required and elective BIO, BMB, and CHM courses. Honors students will have begun research before their senior year. Students interested in pursuing an honors degree must obtain preapproval from the program coordinator during the fall of the senior year and enroll in BMB 395 during their senior year. The student must prepare an honors paper describing his or her independent research project, written in the form of a scientific paper, which must be submitted to, and approved by, an advisory committee. Honors students are also required to make a short oral presentation at the end of their senior year. For additional information, please consult the program coordinator or BMB faculty advisors.

## Bioethics, Humanities and Medicine (BHM)

### Interdisciplinary Minor

The interdisciplinary minor in Bioethics, Humanities and Medicine is designed to foster students' understanding of the ethical dimensions of science, health research and health care delivery; to provide students with the knowledge and skills necessary to engage and analyze these dimensions; to facilitate students' integration of their education in the humanities and their understanding of, and approach to, medicine and health care; and to allow students to bring this interdisciplinary knowledge to bear in medical education and practice.

#### Contact Information

Center for Bioethics, Health & Society (<http://college.wfu.edu/bhmmminor/>)

Tribble Hall B313, Box 7332  
Phone 336-758-4256

## Programs Minor

- Bioethics, Humanities and Medicine, Minor

## Courses

### BHM 310. The Art and Science of Health and Healing. (3 h)

Brings together perspectives from the humanities and the clinic to explore health and disease, suffering and dying, as well as the art and science of healing.

### BHM 385. Special Topics in Bioethics, Humanities, and Medicine. (1-3 h)

Offered by members of the faculty on specialized topics of their choice. With permission, may be repeated for credit. P-POI.

### BHM 395. Independent Study in Bioethics, Humanities, and Medicine. (1-3 h)

Reading, research, or internship courses designed to meet the needs and interests of students, to be carried out under the supervision of a faculty member. P-POI.

## Faculty

**Director, Professor of Philosophy** Ana S. Iltis

### Steering Committee

Simone Caron - Professor of History

Mary Foskett - Professor of Religion

Amanda Gengler - Assistant Professor of Sociology

Pat Lord - Teaching Professor of Biology

## Bioethics, Humanities and Medicine, Minor

## Requirements

The minor requires 18 hours. No more than three credits counting towards a major and no more than six credits counting towards another minor can also count towards the Bioethics, Humanities and Medicine minor.

Code	Title	Hours
<b>Required Courses</b>		
BHM 310	The Art and Science of Health and Healing *	3
or HMN 370	Medicine and the Humanities	
or HST 339	Sickness and Health in American History	
Select one of the following:		3
PHI 161	Introduction to Bioethics	
PHI 367	Philosophical Theories in Bioethics	
BIO 210	Ethical Decision-Making in Biology and Medicine	
Select 6 credit hours of Electives from Group A **		6
Select 6 credit hours of Electives from Group B ***		6

\* For HST 339 to fulfill the core requirement, students must obtain the permission of the instructor and complete assignments designed to fulfill the goals of the core requirement.

\*\* Courses in Group A must be taken in two different departments.

\*\*\* Courses in Group B must be taken in two different departments.

## Group A

Code	Title	Hours
BHM 385	Special Topics in Bioethics, Humanities, and Medicine (with approval of steering committee)	1-3
BHM 395	Independent Study in Bioethics, Humanities, and Medicine (with approval of steering committee)	1-3
ANT 360	Anthropology of Global Health	3
ANT 362	Medical Anthropology	3
COM 345	Rhetoric of Science and Technology	3
COM 355	Survey of Health Communication	3
COM 356	Health Communication: Patient-Provider	3
COM 357	Health Communication and Bioethics	3
COM 358	Health Communication and Bioethics	3
COM 361	Family Communication and Health across the Lifespan	3
COM 370	Special Topics (with permission of the BHM Interdisciplinary Minor Faculty Steering Committee)	1-3
CNS 334	Ethics in Health and Human Services	3
CNS 335	Health and Human Services in a Diverse Society	3
ECN 240	Economics of Health and Medicine	3
HES 360	Epidemiology	3
HPA 150	Introduction to Public Health	3
SOC 329	Health Inequalities	3
SOC 331	The Social and Legal Contexts of Medicine	3
SOC 335	Sociology of Health and Illness	3
SOC 336	Sociology of Healthcare	3
SOC 368	Death and Dying	1.5
SOC 369	Social Movements	3
SOC 383	Special Topics Seminar in Medicine and Health Care	3
WGS 330	Gender and the Politics of Health	3

## Group B

Code	Title	Hours
BHM 385	Special Topics in Bioethics, Humanities, and Medicine (with approval of steering committee)	1-3
BHM 395	Independent Study in Bioethics, Humanities, and Medicine (with approval of steering committee)	1-3
BIO 210	Ethical Decision-Making in Biology and Medicine *	3
ENG 175	Studies in American Literature (when taught as: Race, Heredity, and Genetics)	3
HMN 365	Humanity and Nature	3
HST 113	Health, Disease and Healing in World History	3

HST 339	Sickness and Health in American History (if HST 339 is not used to fulfill core requirement)	3
PHI 161	Introduction to Bioethics **	3
PHI 360	Ethics	3
PHI 367	Philosophical Theories in Bioethics ***	3
PHI 368	Concepts of Health & Disease	3
REL 307	Magic, Science and Religion	3
REL 329	Chinese Medicine	3
REL 330	Pope, Jefferson and Imam: A Study in Comparative Ethics	3
REL 362	Topics in Islam	3
REL 390	Special Topics in Religion (Environmental Ethics)	1.5-3

\* If PHI 367 is used to fulfill core requirement and if PHI 161 is not used as a Group B elective.

\*\* If PHI 367 is used to fulfill core requirement and if BIO 210 is not used as a Group B elective.

\*\*\* If PHI 161 or BIO 210 is used to fulfill core requirement.

Other courses, including Special Topics courses in a number of departments, may be suitable as electives in the minor. These courses can be counted toward the minor with the approval of the interdisciplinary minor in Bioethics, Humanities and Medicine committee.

## Biology (BIO)

The department offers programs leading to Bachelor of Arts and Bachelor of Science degrees in biology. Students electing to major in biology should consult with their major adviser to determine which degree program is most appropriate for their current career objectives. The requirements for completion of Biology degree programs are those in effect at the time of the declaration of the major, as the curriculum and the departmental requirements may change slightly during the student's period of residence.

**Special Note.** Students enrolled at Wake Forest may not take courses in biology at other institutions to satisfy the divisional requirement.

## Contact Information

Department of Biology (<http://college.wfu.edu/biology/>)  
Winston Hall 226, Box 7325  
Phone 336-758-5322

## Programs Majors

- Biology, B.A.
- Biology, B.S.

## Minor

- Biology, Minor



## Courses

### Biology (BIO)

All BIO courses numbered 211 through 399 require BIO 150, BIO 150L, BIO 160, and BIO 160L as prerequisites with the exception of BIO 213 and BIO 214. Additional prerequisites may be required and are noted in individual course descriptions.

Under special circumstances, an exceptional student lacking a prerequisite for a particular course may be allowed to enroll in that course by receiving a POI (permission of instructor) from the instructor.

The same numbered course cannot be repeated unless it is a topics course (BIO 301-BIO 306) with a different title.

A maximum of four hours of research in biology (BIO 390, BIO 391, and/or BIO 392) may be applied toward the major, but an additional four hours in research (BIO 392, BIO 393, and/or BIO 394) may be taken and applied as elective hours towards graduation. Research courses should be taken in consecutive order. Only BIO major and minors are eligible to receive BIO credit for research. Only BA majors are eligible to take BIO 399.

#### **BIO 101. Biology and the Human Condition. (4 h)**

Introduction to basic principles in biology, emphasizing recent advances in biology in the context of their ethical, social, political, and economic considerations. Intended for students with little or no previous experience in biology. BIO 101 is not recommended for those pursuing a career in the health professions or who are planning to continue in biology. Does NOT count toward the biology major or minor. Credit not given for both BIO 101 and BIO 111. C-BIO 101L. (D)

#### **BIO 101L. Biology and the Human Condition-Lab. (0 h)**

Lab only. No credit.

#### **BIO 105. Plants and People. (4 h)**

Explores the numerous associations between plants and people, the fundamental importance of plant diversity to humans and their role in the sustainability of the biosphere. This course is intended for students with little or no previous experience in biology and does NOT count toward the major or minor in Biology. (D)

#### **BIO 111. Biological Principles. (4 h)**

Study of the general principles of living things with focus on the cellular, organismal, and population levels of biological organization, emphasizing the role of heredity and evolution in these systems. Used as equivalent credit for prior college level or transfer course work only. Does NOT count toward the major or minor in biology. Credit not given for both BIO 101 and BIO 111. (D)

#### **BIO 111L. Biological Principles Lab. (0 h)**

Lab only. No credit.

#### **BIO 150. Biology I. (3 h)**

Introduction to biological principles and concepts I. Both BIO 150 and 150L must be taken to meet the divisional requirement. (D)

#### **BIO 150L. Biology I Lab. (1 h)**

P or C-BIO 150.

#### **BIO 160. Biology II. (3 h)**

Introduction to biological principles and concepts II. P-BIO 150.

#### **BIO 160L. Biology II Lab. (1 h)**

P-BIO 150 and 150L. P or C-BIO 160.

#### **BIO 202. Bird Taxonomy (Florida). (2 h)**

Immersion in bird taxonomy and ecology, conducted in southern Florida during six days of Spring Break. Two on-campus meetings are followed by a trip to top birding sites in North America, viewing over 100 species and covering most of the world's orders of birds. Out-of-pocket costs for food, transportation, and lodging expected to be \$200 or less. P-POI required.

#### **BIO 208. Understanding Climate Change. (1.5 h)**

Introduction to the scientific evidence for climate change.

#### **BIO 210. Ethical Decision-Making in Biology and Medicine. (3 h)**

Examines contemporary issues in bioethics, including responsible conduct in research, implications of technological advances in biology, environmental issues, and controversies in health care and medical practice.

#### **BIO 212. Biodiversity. (4 h)**

Investigates the history of life on earth and examines its diversification in an evolutionary and ecological context. Lectures cover the mechanisms of biological diversification and survey life on earth. Labs introduce students to the broad diversity of life through exercises with living organisms. P-BIO 150, 150L, 160, and BIO 160L. (D)

#### **BIO 213. Genetics and Molecular Biology. (4 h)**

Introduction to the principles and processes of heredity, information flow, and gene function. Topics covered include Mendelian genetics, molecular genetics, and the origin of genetic variation. This course will be offered for the last time Spring 2021. C-BIO 213L.

#### **BIO 213L. Genetics and Molecular Biology Lab. (0 h)**

Lab only. No credit.

#### **BIO 214. Cellular Biology. (4 h)**

Introduction to the principles and processes of cellular biology and their impact on organismal function. Topics include molecular organization of cellular structures, regulations of cellular functions, bioenergetics, and metabolism. Introduces cancer, immunology, and developmental biology. This course will be offered for the last time in Spring 2021. P-BIO 114 and CHM 111.

#### **BIO 214L. Cellular Biology Lab. (0 h)**

Lab only. No credit.

#### **BIO 220. Introduction to Earth Science. (3 h)**

Oceans, weather, climate, earthquakes, volcanoes, soil, and space all play important roles in our dynamic planet. Students will explore the lithosphere, hydrosphere, atmosphere, and biosphere, and gain a deeper understanding of how the Earth operates as a whole. Also listed as ENV 220. P-requires BIO 150, 150L, 160, and BIO 160L if taken as BIO 220.

#### **BIO 225. Field Biology and Natural History. (3 h)**

Provides a hands-on study of organisms in their natural habitats with an emphasis on local North Carolina biodiversity. Well-established sampling methods in field biology are blended with emerging technologies. P-BIO 150, 150L, 160, and BIO 160L.

#### **BIO 235. Genetics and Evolution. (3 h)**

Exploration of genetic evolution, biodiversity, adaptation, and genomics. Intended as an intermediate course for developing skills towards advanced studies in genetics, evolution, ecology, and molecular biology. P-BIO 150, 150L, 160, and BIO 160L.

#### **BIO 245. Comparative Animal Physiology. (3 h)**

Introduction to animal physiology in the context of animal diversity and evolution. P-BIO 150, 150L, 160, and BIO 160L.

#### **BIO 265. Cellular and Molecular Biology. (3 h)**

Exploration of the molecular mechanisms of cellular functions. P-BIO 150, 150L, 160, and BIO 160L.

**BIO 301. Topics in Biology. (1-4 h)**

Seminar and/or lecture courses in selected topics, some involving laboratory instruction. May be repeated if the course title differs.

**BIO 302. Topics in Biology. (1-4 h)**

Seminar and/or lecture courses in selected topics, some involving laboratory instruction. May be repeated if the course title differs.

**BIO 303. Topics in Biology. (1-4 h)**

Seminar and/or lecture courses in selected topics, some involving laboratory instruction. May be repeated if the course title differs.

**BIO 304. Topics in Biology. (1-4 h)**

Seminar and/or lecture courses in selected topics, some involving laboratory instruction. May be repeated if the course title differs.

**BIO 305. Topics in Biology. (1-4 h)**

Seminar and/or lecture courses in selected topics, some involving laboratory instruction. May be repeated if the course title differs.

**BIO 306. Topics in Biology. (1-4 h)**

Seminar and/or lecture courses in selected topics, some involving laboratory instruction. May be repeated if the course title differs.

**BIO 307. Biophysics. (3 h)**

Introduction to the structure, dynamic behavior, and function of DNA and proteins, and a survey of membrane biophysics. The physical principles of structure determination by X-ray, NMR, and optical methods are emphasized. Also listed as PHY 307. P-BIO 114 or 214, PHY 113 or 123, PHY 114 or 124, or POI. BIO 150, 150L, 160, and BIO 160L may be substituted for BIO 114 and 214.

**BIO 308. Biomechanics. (3 h)**

Analyzes the relationship between organismal form and function using principles from physics and engineering. Solid and fluid mechanics are employed to study design in living systems. P-BIO 114 or BIO 150, 150L, 160, and BIO 160L.

**BIO 308L. Biomechanics Lab. (1 h)**

Laboratory study of biomechanics. P or C-BIO 308.

**BIO 309. Comparative Anatomy. (4 h)**

Study of the vertebrate body from an evolutionary, functional, and developmental perspective. Labs emphasize structure and function, primarily through the dissection of representative vertebrates. P-BIO 113 and 114 or BIO 245.

**BIO 310. Community Ecology and Global Change. (4 h)**

An advanced ecology course covering mechanisms that determine the dynamics and distribution of plant and animal assemblages and their responses to and roles in global change. Lectures focus on ecological principles and theory. Lab includes local field trips and discussion of the primary literature. Weekend field trips to Outer Banks and mountains. P-BIO 113 and 114 or BIO 150, 150L, 160, and BIO 160L.

**BIO 311. Ecology and Conservation Biology of Coral Reefs. (4 h)**

In-depth study of the various biotic and abiotic components that come together to structure ecosystem function and biodiversity at all spatial scales in one of Earth's most productive and diverse environments, yet one most threatened by human use and climate change. Lab component is a one-week field trip over Spring Break. P-BIO 113 or BIO 150, 150L, 160, and BIO 160L.

**BIO 313. Herpetology. (4 h)**

Explores the biology of reptiles and amphibians, emphasizing their unique morphological, physiological, behavioral and life-history adaptations, and their evolutionary relationships. The lab consists mostly of field trips. P-BIO 113, 114 and 213 or BIO 150, 150L, 160, and BIO 160L.

**BIO 315. Population Genetics. (3 h)**

Study of the amount and distribution of genetic variation in populations of organisms and of how processes such as mutation, recombination, and selection affect genetic variation. Lectures introduce theoretical studies and include discussion of molecular and phenotypic variation in natural populations. P-BIO 113 and 213 or BIO 150, 150L, 160, and BIO 160L. (QR)

**BIO 315L. Population Genetics Lab. (1 h)**

Uses computer modeling and simulation, and experiments using populations of fruit flies and other model organisms as appropriate. P or C-BIO 315.

**BIO 316. Biology of Birds. (4 h)**

Lecture plus lab course emphasizing ecological and evolutionary influences on the physiology, behavior, diversity, and population biology of birds, and case studies in conservation biology. P-BIO 113 and 114 or BIO 150, 150L, 160, and BIO 160L.

**BIO 317. Plant Physiology and Development. (3 h)**

Examines the growth, development, and physiological processes of plants. Control of these processes is examined on genetic, biochemical, and whole plant levels. P-BIO 114, 213 and 214 or BIO 265.

**BIO 317L. Plant Physiology and Development Lab. (1 h)**

Consists of structured experiments and an independently designed research project. P or C-BIO 317.

**BIO 323. Animal Behavior. (3 h)**

A survey of laboratory and field research on animal behavior. P-BIO 113 and 114 or BIO 150, 150L, 160, or BIO 160L.

**BIO 323L. Animal Behavior Lab. (1 h)**

Laboratory study of animal behavior. P or C-BIO 323.

**BIO 324. Hormones and Behavior. (3 h)**

Explores the mechanisms of hormonal influences on behavior in a broad range of animals, including humans. P-BIO 114 or BIO 245.

**BIO 327. Mycology: Biology of Fungi. (4 h)**

Introduces fungi, their evolution and natural taxonomy; cell and molecular biology; genetics, mating, and development; primary and secondary biochemistry; and their interactions with other organisms and the environment. Lab introduces culturing, microscopic and molecular techniques. P-BIO 113, 114, 213 and 214 or BIO 150, 150L, 160, and BIO 160L.

**BIO 328. Biology of Aging. (3 h)**

Explores mechanisms of aging, and effects of aging on cellular and physiological processes in a range of organisms. P-BIO 113, 114 and 214; or BIO 235 or BIO 245 or BIO 265.

**BIO 329. Conservation Biology. (3 h)**

Lectures, readings, and discussions examining biological resources, their limitations and methods for sustainability. Genetic, aquatic, terrestrial, and ecosystem resources will be examined. P-BIO 113 or BIO 150, 150L, 160, and BIO 160L.

**BIO 330. Land and Natural Resource Management. (3 h)**

Provides a fundamental understanding of land and resource management. The major focus is on federal oversight and policies but state, local, non-profit, and international aspects are included. P-BIO 113 or BIO 150, 150L, 160, and BIO 160L.

**BIO 332. Microbiology. (4 h)**

Structure, function, and taxonomy of microorganisms with emphasis on bacteria. Topics include microbial ecology, industrial microbiology, and medical microbiology. Lab emphasizes microbial diversity through characterizations of isolates from nature. P-CHM 122 and BIO 213 and 214 or CHM 122 and BIO 150, 150L, 160, and BIO 160L.

**BIO 333. Vertebrates. (4 h)**

Systematic study of vertebrates, with emphasis on evolution, physiology, behavior, and ecology. Laboratory devoted to systematic, field, and experimental studies. P-BIO 113 and 114 or BIO 150, 150L, 160, and BIO 160L.

**BIO 334. Parasitology. (4 h)**

Survey of protozoan, helminth, and arthropod parasites with a focus on cellular biology, life cycles, host-parasite relationships, and public health implications. Laboratory emphasizes microscopy-based techniques for examining parasite morphology and intracellular structures. P- BIO 113 and 114 or BIO 265.

**BIO 335. Insect Biology. (4 h)**

Introduction to the diversity, structure, development, physiology, behavior, and ecology of insects. P-BIO 113 and 114 or BIO 150, 150L, 160, and BIO 160L.

**BIO 336. Development. (3 h)**

Study of the molecular, cellular, and anatomical aspects of embryonic development of invertebrate and vertebrate animals. P-BIO 114, 213 and 214, or BIO 150, 150L, 160, or BIO 160L.

**BIO 336L. Development Lab. (1 h)**

Laboratory study of the molecular, cellular, and anatomical aspects of embryonic development of invertebrate and vertebrate animals. P or C-BIO 336.

**BIO 338. Plant Diversity. (3 h)**

Explores the diversification of plants in the context of convergent evolution, functional processes and ecological importance. P-BIO 113 or BIO 150, 150L, 160, and BIO 160L.

**BIO 338L. Plant Diversity. (1 h)**

Plant diversity lab. P or C-BIO 338.

**BIO 340. Ecology. (4 h)**

Introduction to the interrelationships among living systems and their environments; structure and dynamics of major ecosystem types; contemporary problems in ecology. P-BIO 113 and 114 or BIO 150, 150L, 160, and BIO 160L. (QR)

**BIO 341. Marine Biology. (3 h)**

An introduction to the physical, chemical, and biological parameters affecting the distribution of marine organisms. P-BIO 113 and 114 or BIO 150, 150L, 160, and BIO 160L.

**BIO 341L. Marine Biology. (1 h)**

Marine biology lab. P or C-BIO 341.

**BIO 342. Oceanography. (4 h)**

Introduces the geological, physical, chemical, and biological processes that govern the global oceans and their role in climate change. Lab focus is on tools and research questions pertinent to the field of biological oceanography. P-CHM 111 and BIO 113 or CHM 111 and BIO 150, 150L, 160, and BIO 160L.

**BIO 343. Molecular Neuroscience. (3 h)**

Investigates the cellular and molecular basis of neural function, including the molecular basis of neurological disorders. P-BIO 213 and 214 or BIO 150, 150L, 160, and BIO 160L.

**BIO 346. Neurobiology. (3 h)**

Introduces the structure and function of the nervous system including the neural basis of behavior. P-BIO 114 and 214 or BIO 150, 150L, 160, and BIO 160L.

**BIO 346L. Neurobiology Lab. (1 h)**

Laboratory emphasizing electrophysiological techniques with experiments from the cellular to the behavioral level. Students will design and complete their own projects. C-BIO 346.

**BIO 348. Physiological Plant Ecology. (3 h)**

Provides a fundamental understanding of how plants have adapted to the stresses of their habitats, particularly in harsh or extreme environments such as deserts, the alpine, the arctic tundra, and tropical rain forests. P-BIO 113 and 114 or BIO 150, 150L, 160, and BIO 160L.

**BIO 348L. Physiological Plant Ecology. (1 h)**

Physiological plant ecology lab. P or C-BIO 348.

**BIO 349. Tropical Biodiversity of the Amazon and Andes. (4 h)**

Intensive field course in tropical biodiversity focusing on ecosystems, natural resource management, and conservation. Students will travel to major tropical biomes in the vast tropical wildernesses of Andean and Amazonian Peru. Lectures emphasize the basic ecological principles important in each ecosystem. Field-based labs focus on student-designed projects. Offered in the summer only. POI required.

**BIO 352. Developmental Neuroscience. (4 h)**

Focuses on the development of neural structures and the plasticity of the mature nervous system. Laboratory features immunocytochemical and cell culture techniques for the study of neurons. P-BIO 213 and 214 or BIO 265.

**BIO 353. Functional Neuroanatomy. (3 h)**

Introduces the anatomical organization of the vertebrate central nervous system. P-BIO 214 or BIO 245.

**BIO 354. Methods in Neuroscience. (3 h)**

Introduces the techniques used in the field of neuroscience. Anatomical, physiological, molecular and behavioral methods are covered through lectures, laboratory work, and reading the primary literature. Also offered in Salamanca. P-BIO 114 and 214 or BIO 150, 150L, 160, and BIO 160L.

**BIO 356. Ecology and Resource Management of Southeast Australia. (4 h)**

Intensive field-oriented course focusing on ecosystems, natural resource management and environmental conservation of southeastern Australia. Students travel to major biomes including sub-tropical rainforests, coral reefs and the Australian urban environment. Laboratories are field-based, with some consisting of student-designed projects. Taught only in summers in Australia. P-BIO 113 or BIO 150, 150L, 160, and BIO 160L or POI.

**BIO 357. Bioinspiration and Biomimetics. (3 h)**

Explores the ways in which biological mechanisms can inspire new technologies, products, and businesses. The course combines basic biological and entrepreneurial principles. Also listed as ENT 357. P-BIO 114 or BIO 150, 150L, 160, and BIO 160L.

**BIO 358. Biogeography. (3 h)**

Study of geographic variation and distribution of organismal diversity using theoretical, historical and ecological information with specific applications to conservation and sustainability. P-BIO 113 or BIO 150, 150L, 160, and BIO 160L.

**BIO 358L. Biogeography Lab. (1 h)**

Introduces methods of analysis related to the study of biogeography. P or C-BIO 358.

**BIO 360. Metabolic Diseases. (3 h)**

Explores genetic and biochemical pathways in the context of inborn errors of metabolism. P-BIO 370/CHM 370/BMB 370.

**BIO 361. Principles of Biological Microscopy. (4 h)**

Introduces the fundamentals of biological imaging techniques. Students will explore a variety of microscopic methods as well as image acquisition, post-image processing, and scientific figure creation. Emphasis will be on both a theoretical and practical understanding of microscopic imaging principles. Concepts of experimental design and data critique will be explored through student projects and presentations. P-BIO 214 or BIO 265.

**BIO 362. Immunology. (3 h)**

Study of the components and protective mechanisms of the human immune system, including innate and acquired immunity. P-BIO 214 or BIO 265.

**BIO 363. Sensory Biology. (3 h)**

Introduction to sensory physiology and other aspects of sensory systems, e.g. molecular biology and anatomy. Also offered in Salamanca. P-BIO 114 and 214 or BIO 150, 150L, 160, and BIO 160L.

**BIO 363L. Sensory Biology Lab. (1 h)**

Laboratory emphasizing electrophysiological and behavioral techniques to examine sensory systems. Students will design and complete their own projects. C-BIO 363.

**BIO 365. Biology of the Cell. (3 h)**

Lecture course on classic and recent experiments in cell biology. Analysis and interpretation of experimental data from the primary literature is emphasized. P-BIO 213 and 214 or any BIO course at the 211 level or above.

**BIO 365L. Biology of the Cell Lab. (1 h)**

Laboratory course introducing basic techniques in cell biology, leading to an independent project. P or C-BIO 365.

**BIO 367. Virology. (3 h)**

Introduces molecular virology, including viral replication, viral-cell interactions, viral disease, and methods for studying and controlling viruses. P-BIO 213 and 214 or BIO 265.

**BIO 368. The Cell Biological Basis of Disease. (3 h)**

Examines defects in basic cellular mechanisms that may lead to disease. P-BIO 214 or BIO 265.

**BIO 368L. The Cell Biological Basis of Disease Lab. (1 h)**

Lab uses advanced microscopic and histological techniques to investigate basic properties of cells. P or C-BIO 368.

**BIO 369. Cancer Biology. (3 h)**

Analysis of molecular and cellular mechanisms that transform normal cells, trigger abnormal proliferation, and lead to tumor formation. Emphasis is on the biological basis of cancer, with some exploration of clinical and social consequences. P-BIO 213 and 214, or BIO 235 or BIO 245, or BIO 265.

**BIO 370. Biochemistry I: Macromolecules and Metabolism. (3 h)**

Introduces principles of biochemistry including structure, function, and biosynthesis of biological molecules, analysis of enzyme function and activity, bioenergetics, and regulation of metabolic pathways. Also listed as BMB 370 and CHM 370. P-any two of the following with associated labs: CHM 122 (or CHM 123), CHM 280 or BIO 214; or any two of the following: CHM 122 (or CHM 123), CHM 280, or BIO 265.

**BIO 370L. Biochemistry Lab. (1 h)**

Overview of biochemical approaches to study structure and function of macromolecules. Also listed as CHM 370L. Credit allowed for BIO 370L/CHM 370L or BIO 371L/BMB 371L/CHM 371L, but not both. P or C-BIO 370/BMB 370/CHM 370.

**BIO 371L. Advanced Biochemistry Lab. (1.5 h)**

Emphasizes approaches for isolation and analysis of enzymes. Required for BMB major and the chemistry major with concentration in biochemistry. Recommended for research focused students. Also listed as BIO 371L and CHM 371L. Credit allowed for BIO 370L/CHM 370L, or BMB 371L/BIO 371L/CHM 371L, but not both. P or C-BMB 370/BIO 370/CHM 370.

**BIO 372. Advanced Molecular Biology. (3 h)**

Presents molecular mechanisms by which stored genetic information is expressed including the mechanisms for and regulation of gene expression, protein synthesis, and genome editing. Emphasizes analysis and interpretation of experimental data from the primary literature. Also listed as BMB 372. P-BIO 370/BMB 370/CHM 370.

**BIO 372L. Advanced Molecular Biology Laboratory. (1.5 h)**

Introduces modern methods of molecular biology to analyze and manipulate expression of genes and function of gene products. Also listed as BMB 372L. P or C-BIO 372/BMB 372 or BMB 373/CHM 373.

**BIO 374. Neuropsychopharmacology. (3 h)**

Introduces how pharmacological agents affect cellular and molecular functions in the nervous system of normal and disease states. Lecture and case studies will be used to examine topics including drugs targeting mood and emotion, memory and dementia, and movement disorders. Drugs of abuse and the neurological basis of addiction will also be evaluated. P-BIO 214 or BIO 150, 150L, 160, and BIO 160L.

**BIO 379. Introduction to Geographic Information Systems (GIS). (4 h)**

Introduces the concepts and use of GIS as a mapping and analytical tool with emphasis on applications environmental modeling, global change, sociodemographic change, and site suitability analyses. P-BIO 113 or BIO 150, 150L, 160, and BIO 160L.

**BIO 380. Biostatistics. (3 h)**

An introduction to statistical methods used by biologists, including descriptive statistics, hypothesis-testing, analysis of variance, and regression and correlation. P-BIO 114 or BIO 150, 150L, 160, and BIO 160L. (QR)

**BIO 381. Epigenetics. (3 h)**

Studies the molecular mechanisms for inheritance of genome modifications. Uses primary literature to explore the environmental and developmental signals that influence epigenetic controls of gene expression and disease. Also listed as BMB 381. P-BIO 213 and 214, or BIO 265.

**BIO 381L. Epigenetics Laboratory. (1 h)**

Provides hands-on experiences with genome editing and molecular genetics to address the function and expression of genes. Also listed as BMB 381L. P or C-BIO 381 or POI.

**BIO 382. Molecular Signaling. (3 h)**

Examines the molecular and biochemical mechanisms by which hormones, neurotransmitters, and other signaling molecules act to change growth, development, and physiological and behavioral responses of organisms with a focus on discussion of primary literature. Also listed as BMB 382. P-BIO 213, 214, and BIO 370/BMB 370/CHM 370 or BIO 265 and BIO 370/BMB 370/CHM 370.



**BIO 383. Genomics. (3 h)**

Examines the architecture, expression, and evolution of genomes. Uses current primary literature to examine the functional and evolutionary dynamics of genomes and the modern analytic techniques used to investigate genome-wide phenomena. Also listed as BMB 383. P-BIO 160 and 160L or CSC 112 or STA 212; and an introductory statistics course such as STA 111, ANT 380, BIO 380, or PSY 311.

**BIO 383L. Genomics Lab. (1 h)**

Introduces analytic methods and interpretation of genome wide data through practical tutorials. Also listed as BMB 383L. P or C-BIO 383.

**BIO 384. Molecular Evolution. (3 h)**

Study of the evolutionary analysis of biological sequences in population genetic and phylogenetic contexts. Explores statistical and bioinformatic techniques for investigating population evolution, molecular adaptations, and reconstruction of evolutionary history through primary literature. P-BIO 160 and 160L or CSC 112 or STA 212; and an introductory statistics course such as STA 111, ANT 380, BIO 380, or PSY 311.

**BIO 384L. Molecular Evolution. (1 h)**

Introduces evolutionary analytic methods and interpretation of molecular data through practical tutorials. P or C-BIO 384.

**BIO 385. Bioinformatics. (3 h)**

Introduction to computational approaches essential to modern biological inquiry. Approaches may include large biological dataset analyses, sequence similarity and motif searches, and analysis of high-throughput genomic technologies. Emphasizes interdisciplinary interaction and communication. Also listed as CSC 385 and PHY 385. P-CSC 201 or 221 (and BIO 150, 150L, 160, and BIO 160L if taken as BIO 385) or POI.

**BIO 387. Computational Systems Biology. (3 h)**

Introduction of concepts and development of skills for comprehension of systems biology problems, including both biological and computational aspects. Topics may include genome-wide transcriptomic analysis, protein interaction networks, large-scale proteomics experiments, and computational approaches for modeling, storing, and analyzing the resulting data sets. Emphasizes interdisciplinary interaction and communication. Also listed as CSC 387. P-CSC 201 or 221 (also requires BIO 150, 150L, 160, and BIO 160L if taken as BIO 387) or POI.

**BIO 388. Methods in Molecular Genetics. (4 h)**

Hybrid lecture/laboratory course gives students a hands-on introduction to a diverse array of techniques commonly used in molecular genetics laboratories. P-BIO 213 and 214, or BIO 150, 150L, 160, and BIO 160L.

**BIO 390. Mentored Research. (2 h)**

Introduces the technology and techniques of research. Working under the supervision of a faculty member or research staff, students will obtain experience in experimental design and analysis. The course may be taken as a precursor to BIO 391. Satisfies the research requirement for the BA and BS degrees. Pass/Fail option. P-BIO 150, 150L, 160, 160L, and POI required.

**BIO 391. Independent Research. (2 h)**

Students participate in a research project involving collection or analysis of data to investigate a defined research question. Students are required to submit a written paper or poster documenting research progress. The same numbered course cannot be repeated. Subsequent courses must be taken in consecutive order. Satisfies the research requirement for the BA and BS degree. Pass/Fail option. P-BIO 150, 150L, 160, 160L and POI required.

**BIO 392. Independent Research. (2 h)**

Continuation of research beyond BIO 391. Students are required to submit a written paper or poster documenting research progress. The same numbered course cannot be repeated. Pass/Fail option. P-BIO 391 and POI required.

**BIO 393. Research in Biology. (2 h)**

Continuation of research beyond BIO 392. Students are required to submit a written paper or poster documenting research progress. The same numbered course cannot be repeated. Pass/Fail option. P-BIO 392 and POI required.

**BIO 394. Research in Biology. (2 h)**

Continuation of research beyond BIO 393. Students are required to submit a written paper or poster documenting research progress. The same numbered course cannot be repeated. Pass/Fail option. P-BIO 393 and POI required.

**BIO 399. Mentored Biology. (2 h)**

Students explore career opportunities in biology-related fields or experiences. Students are required to submit a written paper or poster describing research internship or experience to their adviser. Plans must be approved in advance by the adviser. Course can be repeated for credit, but only 4 total hours will count toward the BA BIO major. Does not count toward the BS BIO major or the BIO minor. Pass/Fail only. P-BIO 150, 150L, 160, 160L and POI required.

**Faculty**

- Chair** Susan E. Fahrbach
- Andrew Sabin Family Foundation Presidential Chair in Conservation Biology** Miles R. Silman
- Charles M. Allen Professor of Biology** Gloria K. Muday
- Reynolds Babcock Chaired Professor of Biology** William K. Smith
- Reynolds Professor** Susan E. Fahrbach
- Professors** David J. Anderson, Miriam A. Ashley-Ross, Robert A. Browne, William E. Conner, James F. Curran, Erik C. Johnson, Wayne L. Silver, Clifford W. Zeyl
- Teaching Professors** A. Daniel Johnson, Pat C. W. Lord
- Associate Professors** T. Michael Anderson, Sarah Esstman, Ke Reid, Brian W. Tague
- Associate Teaching Professors** Diana R. Arnett, Anna Kate Lack
- Assistant Professors** Regina J. Cordy, Joshua Currie, Sheri A. Flöge, James B. Pease
- Assistant Teaching Professor** Andrew R. St. James
- Visiting Assistant Professors** Michael J. Rizzo, Christine M. Vega
- Director of Microscopy** Glen S. Marrs
- Assistant Director of Microscopy** Heather Brown-Harding

**Biology, B.A.  
Requirements**

Requires at least 34 hours in the department.

Code	Title	Hours
Required Major Courses		
BIO 150 & 150L	Biology I and Biology I Lab	4
BIO 160 & 160L	Biology II and Biology II Lab	4
Select at least three 300-level four-hour Biology courses		12
BIO 390	Mentored Research	2



or BIO 391	Independent Research	
or BIO 399	Mentored Biology	
Additional hours in Biology beyond BIO 201		12

**Co-Requirements**

Choose five of the following *	15-20
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\* *Note that co-requirements cannot be satisfied with courses that are cross-listed between Biology and another department or between Biology and the BMB major. These courses may not also be used to satisfy divisional requirements. Co-required courses may be used to satisfy a minor in another department or interdisciplinary program but cannot be counted toward a second major. Note that some of the courses listed may have non-BIO prerequisites.*

Code	Title	Hours
Any CHM course at the 100-, 200-, 300-level except CHM 108, 301, 302, 381, 390, 391, 392, or CHM 395		
ANT 113	Introduction to Biological Anthropology	3
ANT 339	Culture and Nature: Introduction to Environmental Anthropology	3
ANT 360	Anthropology of Global Health	3
ANT 362	Medical Anthropology	3
ANT 366	Human Evolution	3
ANT 368	Human Osteology	4
CNS 335	Health and Human Services in a Diverse Society	3
CNS 340	Professional Orientation to Health and Human Services	3
COM 345	Rhetoric of Science and Technology	3
COM 356	Health Communication: Patient-Provider	3
COM 358	Health Communication and Bioethics	3
CSC 111	Introduction to Computer Science	4
CSC 112	Fundamentals of Computer Science	4
CSC 201	Data Structures and Algorithms	3
CSC 221	Data Structures and Algorithms I	3
ECN 240	Economics of Health and Medicine	3
ECN 241	Environmental and Natural Resource Economics	3
ENG 341	Literature and the Environment	3
ENG 361	Literature and Science	3
HES 262	Statistics in the Health Sciences	3
HES 350	Human Physiology	3
HES 352	Human Gross Anatomy	4
HES 360	Epidemiology	3
HMN 365	Humanity and Nature	3
HPA 150	Introduction to Public Health	3
HST 113	Health, Disease and Healing in World History	3
HST 339	Sickness and Health in American History	3
JOU 375	Special Topics in Journalism (when topic is Environmental and Science Reporting)	1-3
MST 111	Calculus with Analytic Geometry I	4
MST 112	Calculus with Analytic Geometry II	4
MST 113	Multivariable Calculus	4

MST 117	Discrete Mathematics	4
PHY 113	General Physics I	4
PHY 114	General Physics II	4
PHY 120	Physics and Chemistry of Environment	4
PHY 123	General Physics I - Studio Format	4
PHY 124	General Physics II - Studio Format	4
POL 281	Environmental Political Thought	3
REL 307	Magic, Science and Religion	3
REL 329	Chinese Medicine	3
REL 341	Religion and Ecology	3
STA 111	Elementary Probability and Statistics	4
STA 112	Introduction to Regression and Data Science	3
WRI 320	Writing in and about Science: Scientists as Writers and Writers as Scientists	3

For the B.A. major, the schedule of biology and related courses is flexible. After completing BIO 150, BIO 150L, BIO 160, and BIO 160L, students should select courses from the 200- and 300-levels in accord with their interests and career goals. Students may elect to take BIO 150, BIO 150L, BIO 160, and BIO 160L in the first year, BIO 150 and BIO 150L only in the first year, or take BIO 150, BIO 150L, BIO 160, and BIO 160L in fall and spring of the second year. Students taking the B.A. major with an interest in a health profession career are advised to take CHM 111 and CHM 111L in the fall of the first year and to select additional co-requirements after consulting with a health professions adviser.

A maximum of four hours of 390-sequence courses may be counted as hours in the major, but an additional four hours may be taken and applied toward graduation as elective hours. A minimum GPA of 2.0 in biology courses taken at Wake Forest is required for graduation with a major in biology. The Biology Department may require participation in assessment activities as part of ongoing program evaluation.

## Honors

Highly qualified majors are invited by the department to apply for admission to the honors program in biology during the Fall Semester of their senior year. To be graduated with the distinction "Honors in Biology," a graduating student must have a minimum GPA of 3.0 in all courses and a 3.3 in biology courses. In addition, the student must submit an honors paper describing his or her independent research project, written in the form of a scientific paper, which must be submitted to and approved by an advisory committee. Students are also required to make a short oral presentation to the Biology department at the end of Spring Semester. Specific details regarding the honors program, including selecting an adviser and an advisory committee, deadlines, and writing of the honors thesis, may be obtained from the chair of the departmental Undergraduate Research Committee.

## Biology, B.S.

### Requirements

Requires at least 34 hours in the department.

Code	Title	Hours
<b>Required Major Courses</b>		
BIO 150 & 150L	Biology I and Biology I Lab	4
BIO 160 & 160L	Biology II and Biology II Lab	4
Select at least three 300-level four-hour Biology courses		12
BIO 390 or BIO 391	Mentored Research or Independent Research	2
Additional hours in Biology beyond BIO 201		12
<b>Co-Requirements</b>		
CHM 111 & 111L	College Chemistry I and College Chemistry I Lab	4
STA 111	Elementary Probability and Statistics *	4
Choose three of the following **		12

\* STA 111 is recommended, but this co-requirement may also be fulfilled by one of the following: ANT 380, HES 262, PSY 311, SOC 271, or STA 112. BIO 380 may be used to fill this requirement, but in that case cannot be counted toward the major requirement as hours in biology. Similarly STA 112 may be used to fill this requirement but in that case cannot be counted towards the major requirement as an "other" co-requisite course.

\*\* Note that co-requirements cannot be satisfied with courses that are cross-listed between Biology and another department or between Biology and the BMB major. These courses may not also be used to satisfy divisional requirements. Co-required courses may be used to satisfy a minor in another department or interdisciplinary program but cannot be counted toward a second major. Note that some of the courses listed may have non-BIO prerequisites.

Code	Title	Hours
Any CHM course at the 100-, 200-, or 300-level except CHM 108, 301, 302, 381, 390, 391, 392, or CHM 395		
CSC 111	Introduction to Computer Science	4
CSC 112	Fundamentals of Computer Science	4
CSC 201	Data Structures and Algorithms	3
CSC 221	Data Structures and Algorithms I	3
MST 111	Calculus with Analytic Geometry I	4
MST 112	Calculus with Analytic Geometry II	4
MST 113	Multivariable Calculus	4
MST 117	Discrete Mathematics	4
PHY 113	General Physics I	4
PHY 114	General Physics II	4
PHY 123	General Physics I - Studio Format	4
PHY 124	General Physics II - Studio Format	4
STA 112	Introduction to Regression and Data Science	3

For the B.S. major, the schedule of biology and related courses is flexible. After completing BIO 150, BIO 150L, BIO 160, and BIO 160L, students should select courses from the 200- and 300-levels in accord with their interests and career goals. It is recommended that all prospective majors take CHM 111 and CHM 111L in the fall of the first year and complete BIO 150 and BIO 150L and STA 111 or an equivalent course during either the fall or spring of the first year. Students taking the B.S. major with an interest in a health profession career are additionally advised to take CHM 122 and CHM 122L in the spring of the first year.

These students should select additional co-requirements after consulting with a health professions adviser.

A maximum of four hours of 390-sequence courses (except BIO 399) may be counted as hours in the major, but an additional four hours may be taken and applied toward graduation as elective hours. A minimum GPA of 2.0 in biology courses taken at Wake Forest is required for graduation with a major in biology. The Biology Department may require participation in assessment activities as part of ongoing program evaluation.

## Honors

Highly qualified majors are invited by the department to apply for admission to the honors program in biology during the Fall Semester of their senior year. To be graduated with the distinction "Honors in Biology," a graduating student must have a minimum GPA of 3.0 in all courses and a 3.3 in biology courses. In addition, the student must submit an honors paper describing his or her independent research project, written in the form of a scientific paper, which must be submitted to and approved by an advisory committee. Students are also required to make a short oral presentation to the Biology department at the end of Spring Semester. Specific details regarding the honors program, including selecting an adviser and an advisory committee, deadlines, and writing of the honors thesis, may be obtained from the chair of the departmental Undergraduate Research Committee.

## Biology, Minor Requirements

A minor in Biology requires a total of 18 hours. All minors must complete BIO 150, BIO 150L, BIO 160, BIO 160L and at least one 300-level lab or field course (3 h lecture and 1 h lab or 4 h integrated lecture and lab class). No more than 4 hours in the minor can be fulfilled with biology research courses. BIO minors may not count BIO 399 as hours in the minor. A minimum overall GPA of 2.0 must be earned on all Wake Forest Biology courses taken to complete the minor. The requirements for the minor are those that are in effect at the time of the declaration of the minor, as the curriculum and the departmental requirements may change slightly during the student's period of residence. A minimum of eight hours in Biology must be taken at Wake Forest.

## Chemistry (CHM)

The department offers programs leading to the BA and BS degrees in chemistry. The BS degrees are certified by the American Chemical Society. A minimum GPA of 2.0 in the first two years of chemistry is required of students who elect to major in the department. Admission to any class is contingent upon satisfactory grades in prerequisite courses, and registration for advanced courses must be approved by the department. Candidates for either the BA or BS degree with a major in chemistry must have a minimum GPA of 2.0 in their chemistry courses numbered 200 or above. Unless otherwise stated, all chemistry courses are open to chemistry majors and minors on a letter-grade basis only (even those courses not required for the major or minor). Majors are required to complete on a letter-grade basis the required physics, biology, and mathematics courses. The BS programs are designed for those students who plan a career in chemistry at the bachelor or advanced degree level. The BA program is designed for those students who do not plan to do graduate work in the physical sciences but desire a stronger background in chemistry than is provided by the chemistry minor program.

The department will accept transfer courses completed at four-year colleges and universities but will not award transfer credit towards the chemistry major and minor except from schools offering a major in chemistry. These courses must be equivalent in content and level to courses offered at Wake Forest (as judged by the department). Transfer credit will not be awarded for online lab classes nor for online lecture courses that have co-requisite labs on our campus. Courses taken in summer school elsewhere, or in study abroad programs, must meet these same criteria and receive pre-approval. Advanced courses, 300-level and above, are typically not transferable. Students enrolled at Wake Forest may not take courses in chemistry at other institutions to satisfy divisional requirements.

**The Health Professions Program** at Wake Forest recommends that students take the following chemistry courses and their associated labs before the end of the third year:

Code	Title	Hours
CHM 111	College Chemistry I	3
CHM 122 or CHM 123	Organic Chemistry I Organic Chemistry I Honors	3
CHM 223	Organic Chemistry II	3
CHM 280	College Chemistry II	3

Students interested in this track should see the Health Professions Program adviser for more information.

## Contact Information

Chemistry Department (<http://college.wfu.edu/chemistry/>)  
Salem Hall, Box 7486  
Phone 336-758-6139

## Programs

### Majors

- Chemistry, B.A.
- Chemistry, B.S.
- Chemistry with Concentration in Biochemistry, B.S.
- Chemistry with Concentration in Materials Chemistry, B.S.
- Chemistry with Concentration in Medicinal Chemistry and Drug Discovery, B.S.

### Minor

- Chemistry, Minor

## Courses

Course listings specify prerequisites and corequisites, although admission by permission of instructor, POI, may be granted under special circumstances.

## Chemistry (CHM)

### CHM 108. Everyday Chemistry. (4 h)

Introduction to chemistry for non-science majors. Laboratory covers experimental aspects of topics discussed in lecture. Does not count towards the major or minor in chemistry. C-CHM 108L. (D, QR)

### CHM 108L. Everyday Chemistry Lab. (0 h)

C-CHM 108.

### CHM 111. College Chemistry I. (3 h)

Fundamental chemical principles. Also offered in Salamanca. C-CHM 111L. (D, QR) (Offered Fall Only)

### CHM 111L. College Chemistry I Lab. (1 h)

Laboratory covers experimental aspects of basic concepts. C-CHM 111. (Offered Fall Only)

### CHM 120. Physics and Chemistry of the Environment. (4 h)

Covers the basic physical and chemical processes in the earth's atmosphere, biosphere and the oceans. Also listed as PHY 120. (D, QR)

### CHM 120L. Physics and Chemistry of the Environment Lab. (0 h)

C-CHM 120.

### CHM 122. Organic Chemistry I. (3 h)

Principles and reactions of organic chemistry. Students may not receive credit for both CHM 122 and CHM 123. P-CHM 111. C-CHM 122L. (D) (Offered Spring Only)

### CHM 122L. Organic Chemistry I Lab. (1 h)

P-CHM 111. C-CHM 122. (Offered Spring Only)

### CHM 123. Organic Chemistry I Honors. (3 h)

Principles and reactions of organic chemistry. Freshmen only, by invitation. P-CHM 111. C-CHM 123L. (D) (Offered Fall Only)

### CHM 123L. Organic Chemistry I Honors Lab. (1 h)

P-CHM 111. C-CHM 123. (Offered Fall Only)

### CHM 223. Organic Chemistry II. (3 h)

Principles and reactions of organic chemistry. P-CHM 122 or 123. (Offered Spring and Fall)

### CHM 223L. Organic Chemistry II Lab. (1 h)

P or C-CHM 223.

### CHM 280. College Chemistry II. (3 h)

Advanced study of fundamental chemical principles. P-CHM 111. (D, QR) (Offered Spring Only)

### CHM 280L. Theory and Methods of Quantitative Analysis Lab. (1 h)

Emphasizes technique development for accuracy and precision. P or C-CHM 280. (Offered Spring Only)

### CHM 301. Elective Research. (0 h)

P-POI. Summers only.

### CHM 302. Elective Research. (0 h)

P-POI. Summers only.

### CHM 311. Current Topics. (1-4 h)

Course exploring current topics in chemistry. May be repeated for credit if course content differs. Does not count toward the major or minor in chemistry. P-POI.

### CHM 321. Intermediate Organic Chemistry. (3 h)

Survey of advanced topics in organic chemistry including stereochemistry, conformational analysis, reaction mechanisms, organometallic chemistry and asymmetric synthesis. P-CHM 223, CHM 223L, and CHM 280.

### CHM 324. Medicinal Chemistry I. (3 h)

An introduction to drug targets, mechanism, design, and synthesis. P-CHM 223, 370. (Offered Fall Only)

### CHM 324L. Medicinal Chemistry Laboratory. (1.5 h)

A lab designed to introduce the concept of structure-activity relationships (SAR) using computation, synthetic chemical, physiochemical, and biological techniques. P-CHM 223L. P or C-CHM 324.

**CHM 334. Chemical Analysis. (4 h)**

Theoretical and practical applications of modern methods of chemical analysis. P-CHM 280L. C-CHM 334L. (Offered Fall Only)

**CHM 334L. Chemical Analysis Lab. (0 h)**

Lab only. No credit. C-CHM 334.

**CHM 341. Physical Chemistry I. (3 h)**

Fundamentals of thermodynamics and phenomenological kinetics, and introductory computational methods. Also offered in Salamanca. P-CHM 280, MST 112. P or C-PHY 114 or 124. (Offered Fall Only)

**CHM 341L. Physical Chemistry I Lab. (1 h)**

P-CHM 280L. P or C-CHM 341, PHY 114 or 124.

**CHM 342. Physical Chemistry II. (3 h)**

Fundamentals of quantum mechanics, statistical thermodynamics, and introductory computational methods. P-CHM 341, MST 112, and PHY 114 or 124. P or C-MST 113. (Offered Spring Only)

**CHM 342L. Physical Chemistry II Lab. (1 h)**

P or C-CHM 342.

**CHM 351. Special Topics in Chemistry. (3 h)**

Courses in selected special topics in chemistry. May be repeated for credit if course content differs. P- POI.

**CHM 361. Inorganic Chemistry. (3 h)**

Principles and reactions of inorganic chemistry. P or C-CHM 280. C-CHM 361L. (Offered Spring only)

**CHM 361L. Inorganic Chemistry Lab. (1 h)**

P-CHM 280L. C-CHM 361.

**CHM 362. Nanochemistry in Energy and Medicine. (3 h)**

Advanced topics in nanomaterials science, photochemistry, energy conversion optoelectronics and biomedical photonics. P-CHM 280 and CHM 280L.

**CHM 364. Materials Chemistry. (3 h)**

A survey of inorganic-, organic-, bio-, and nano-materials, including hybrid materials and applications. P-CHM 280 (Offered every other spring).

**CHM 364L. Materials Chemistry Lab. (1 h)**

Synthesis of inorganic and organic based materials and their characterization. P-CHM 280L. P or C-CHM 364.

**CHM 366. Chemistry and Physics of Solid State Materials. (3 h)**

Design, synthesis, structure, chemical and physical properties, and the application of solid state materials. P- CHM 280.

**CHM 370. Biochemistry I: Macromolecules and Metabolism. (3 h)**

Introduces principles of biochemistry including structure, function, and biosynthesis of biological molecules, analysis of enzyme function and activity, bioenergetics, and regulation of metabolic pathways. Also listed as BIO 370 and BMB 370. P-any two of the following with associated labs: CHM 122 (or CHM 123), CHM 280 or BIO 214; or any two of the following: CHM 122 (or CHM 123), CHM 280, or BIO 265.

**CHM 370L. Biochemistry Lab. (1 h)**

Overview of biochemical approaches to study structure and function of macromolecules. Does not count towards the chemistry major with concentration in biochemistry. Also listed as BIO 370L. Credit allowed for CHM 370L/BIO 370L or CHM 371L/BIO 371L/BMB 371L, but not both. P or C-CHM 370/BIO 370/BMB 370.

**CHM 371L. Advanced Biochemistry Lab. (1.5 h)**

Emphasizes approaches for isolation and analysis of enzymes. Required for BMB major and the chemistry major with concentration in biochemistry. Recommended for research focused students. Also listed as BIO 371L and CHM 371L. Credit allowed for BIO 370L/CHM 370L, or BMB 371L/BIO 371L/CHM 371L, but not both. P or C-BMB 370/BIO 370/CHM 370.

**CHM 373. Biochemistry II. (3 h)**

Examines the structure, function, and synthesis of proteins and nucleic acids and includes advanced topics in biochemistry including catalytic mechanisms of enzymes and ribozymes, use of sequence and structure databases, and molecular basis of disease and drug action. Also listed as BMB 373. P-CHM 223 and BIO 370/BMB 370/CHM 370.

**CHM 376. Biophysical Chemistry. (3 h)**

Fundamentals of physical chemistry applied to biological molecules, including thermodynamics, kinetics, quantum mechanics, and spectroscopy. Emphasizes modern experimental approaches used to analyze biological systems. Also listed as BMB 376. P-CHM 280, BIO/BMB/CHM 370, PHY 114. P or C-MST 112.

**CHM 381. Chemistry Seminar and Literature. (0.5 h)**

Discussions of contemporary research and introduction to the chemical literature and acquisitions of chemical information. Pass/Fail only. P-CHM 122 or 123. (Offered Fall Only)

**CHM 390. Chemical Research Experience. (0, 1.5 h)**

Research experience and written report. Requires pre-approval of research project conducted off the Reynolda campus, by prearrangement. Pass/Fail only. May be repeated for credit.

**CHM 391. Undergraduate Research. (0.5-3 h)**

Undergraduate research and written report. Lab-3-16 hours. May be repeated for credit. P-POI. (Offered Fall Only)

**CHM 392. Undergraduate Research. (0.5-3 h)**

Undergraduate research and written report. Lab-3-16 hours. May be repeated for credit. P-POI. (Offered Spring Only)

**CHM 395. Senior Capstone. (0.5 h)**

Discussions of contemporary research and integration of chemical information with scientific dissemination. Pass/fail only. P or C-CHM 361. (Offered Spring Only)

## Faculty

**Thurman D. Kitchin Professor of Chemistry and Chair** S. Bruce King

**John B. White Professor of Chemistry** Willie L. Hinze

**William L. Poteat Professor of Chemistry** Mark E. Welker

**Professors** Rebecca W. Alexander, Ulrich Bierbach, Christa L. Colyer, Patricia Dos Santos, Bradley T. Jones, Abdessadek Lachgar, Akbar Salam  
**Associate Professors** Lindsay R. Comstock-Ferguson, Amanda C. Jones, Paul B. Jones

**Assistant Professors** Wendu Ding, Scott M. Geyer, Elham Ghadiri, John C. Lukesh, Troy A. Stich

**Teaching Professors** Angela Glisan King, Albert Rives

**Associate Teaching Professor** John Tomlinson

**Associate Teaching Professor and Director of Chemistry Center** David Wren

**Research Associate Professor** George L. Donati

**Visiting Assistant Professor** Sarmad Hindo

**Teacher Scholar Postdoctoral Fellow** Allison Rice



# Chemistry, B.A.

## Requirements

Requires a minimum of 34 hours in chemistry and must include the following courses:

Code	Title	Hours
<b>Required Major Courses</b>		
CHM 111	College Chemistry I	3
CHM 111L	College Chemistry I Lab	1
CHM 122	Organic Chemistry I	3
or CHM 123	Organic Chemistry I Honors	
CHM 122L	Organic Chemistry I Lab	1
or CHM 123L	Organic Chemistry I Honors Lab	
CHM 280	College Chemistry II	3
CHM 280L	Theory and Methods of Quantitative Analysis Lab	1
CHM 334	Chemical Analysis	4
CHM 334L	Chemical Analysis Lab	0
CHM 341	Physical Chemistry I	3
CHM 341L	Physical Chemistry I Lab	1
CHM 361	Inorganic Chemistry	3
CHM 361L	Inorganic Chemistry Lab	1
CHM 370	Biochemistry I: Macromolecules and Metabolism	3
CHM 370L	Biochemistry Lab	1
or CHM 371L	Advanced Biochemistry Lab	
Select two of the following:		6
CHM 223	Organic Chemistry II	
CHM 321	Intermediate Organic Chemistry	
CHM 324	Medicinal Chemistry I	
CHM 342	Physical Chemistry II	
CHM 351	Special Topics in Chemistry	
CHM 362	Nanochemistry in Energy and Medicine	
CHM 364	Materials Chemistry	
CHM 366	Chemistry and Physics of Solid State Materials	
CHM 373	Biochemistry II	
CHM 376	Biophysical Chemistry	
Select one of the following:		0-3
CHM 381	Chemistry Seminar and Literature	
CHM 390	Chemical Research Experience	
CHM 391	Undergraduate Research	
CHM 392	Undergraduate Research	
<b>Co-Requirements</b>		
MST 112	Calculus with Analytic Geometry II	4
PHY 111	Mechanics Waves and Heat	4
or PHY 113	General Physics I	
or PHY 123	General Physics I - Studio Format	
PHY 114	General Physics II	4
or PHY 124	General Physics II - Studio Format	

For the **B.A. major**, the following schedule of chemistry and related courses is typical:

Code	Title	Hours
<b>First Year</b>		
CHM 111	College Chemistry I	3
CHM 111L	College Chemistry I Lab	1
CHM 122	Organic Chemistry I	3
or CHM 123	Organic Chemistry I Honors	
CHM 122L	Organic Chemistry I Lab	1
or CHM 123L	Organic Chemistry I Honors Lab	
MST 111	Calculus with Analytic Geometry I	4
MST 112	Calculus with Analytic Geometry II	4
<b>Sophomore</b>		
CHM 280	College Chemistry II	3
CHM 280L	Theory and Methods of Quantitative Analysis Lab	1
PHY 111	Mechanics Waves and Heat	4
or PHY 113	General Physics I	
or PHY 123	General Physics I - Studio Format	
PHY 114	General Physics II	4
or PHY 124	General Physics II - Studio Format	
<b>Junior or Senior</b>		
CHM 334	Chemical Analysis	4
CHM 334L	Chemical Analysis Lab	0
CHM 341	Physical Chemistry I	3
CHM 341L	Physical Chemistry I Lab	1
CHM 370	Biochemistry I: Macromolecules and Metabolism	3
CHM 370L	Biochemistry Lab	1
or CHM 371L	Advanced Biochemistry Lab	
Select one of the following:		0-3
CHM 381	Chemistry Seminar and Literature	
CHM 390	Chemical Research Experience	
CHM 391	Undergraduate Research	
CHM 392	Undergraduate Research	
One upper-level CHM elective		
<b>Senior</b>		
CHM 361	Inorganic Chemistry	3
CHM 361L	Inorganic Chemistry Lab	1
Upper-level CHM elective		

*Variations in the schedules above are possible to accommodate study abroad and other special circumstances, in which case, the student should consult a member of the faculty in chemistry.*

## Honors

Qualified majors are considered for honors in chemistry. To be graduated with the designation "Honors in Chemistry," a student must have a minimum GPA in chemistry courses of 3.3 and a minimum overall GPA of 3.0. In addition, the honors candidate must satisfactorily complete an approved research project, prepare a paper describing the project, and present results at a seminar for departmental approval. Honors thesis research must be conducted on the Wake Forest University campus with a WFU Chemistry faculty member as research adviser or co-adviser. For



additional information, members of the departmental faculty should be consulted.

## Chemistry, B.S.

### Requirements

Requires 43-46 hours in chemistry and must include the following courses:

Code	Title	Hours
<b>Required Major Courses</b>		
CHM 111	College Chemistry I	3
CHM 111L	College Chemistry I Lab	1
CHM 122	Organic Chemistry I	3
or CHM 123	Organic Chemistry I Honors	
CHM 122L	Organic Chemistry I Lab	1
or CHM 123L	Organic Chemistry I Honors Lab	
CHM 223	Organic Chemistry II	3
CHM 223L	Organic Chemistry II Lab	1
CHM 280	College Chemistry II	3
CHM 280L	Theory and Methods of Quantitative Analysis Lab	1
CHM 334	Chemical Analysis	4
CHM 334L	Chemical Analysis Lab	0
CHM 341	Physical Chemistry I	3
CHM 341L	Physical Chemistry I Lab	1
CHM 342	Physical Chemistry II	3
CHM 342L	Physical Chemistry II Lab	1
CHM 361	Inorganic Chemistry	3
CHM 361L	Inorganic Chemistry Lab	1
CHM 370	Biochemistry I: Macromolecules and Metabolism	3
CHM 370L	Biochemistry Lab	1
or CHM 371L	Advanced Biochemistry Lab	
CHM 381	Chemistry Seminar and Literature	0.5
CHM 395	Senior Capstone	0.5
Select one of the following options:		0-3
Option 1:		
CHM 390	Chemical Research Experience	
Option 2:		
Select no fewer than 1.5 hours of the following:		
CHM 391	Undergraduate Research	
CHM 392	Undergraduate Research	
Select two of the following:		6
CHM 321	Intermediate Organic Chemistry	
CHM 324	Medicinal Chemistry I	
CHM 351	Special Topics in Chemistry	
CHM 362	Nanochemistry in Energy and Medicine	
CHM 364	Materials Chemistry	
CHM 366	Chemistry and Physics of Solid State Materials	
CHM 373	Biochemistry II	
CHM 376	Biophysical Chemistry	
Any chemistry graduate class (POI)		

#### Co-Requirements

PHY 111	Mechanics Waves and Heat	4
or PHY 113	General Physics I	
or PHY 123	General Physics I - Studio Format	
PHY 114	General Physics II	4
or PHY 124	General Physics II - Studio Format	
MST 112	Calculus with Analytic Geometry II	4
MST 113	Multivariable Calculus	4

For the **B.S. major**, the following schedule of chemistry and related courses is typical:

Code	Title	Hours
<b>First Year</b>		
CHM 111	College Chemistry I	3
CHM 111L	College Chemistry I Lab	1
CHM 122	Organic Chemistry I	3
or CHM 123	Organic Chemistry I Honors	
CHM 122L	Organic Chemistry I Lab	1
or CHM 123L	Organic Chemistry I Honors Lab	
MST 111	Calculus with Analytic Geometry I	4
MST 112	Calculus with Analytic Geometry II	4
<b>Sophomore</b>		
CHM 223	Organic Chemistry II	3
CHM 223L	Organic Chemistry II Lab	1
CHM 280	College Chemistry II	3
CHM 280L	Theory and Methods of Quantitative Analysis Lab	1
PHY 111	Mechanics Waves and Heat	4
or PHY 113	General Physics I	
or PHY 123	General Physics I - Studio Format	
PHY 114	General Physics II	4
or PHY 124	General Physics II - Studio Format	
MST 113	Multivariable Calculus	4
<b>Junior</b>		
CHM 341	Physical Chemistry I	3
CHM 341L	Physical Chemistry I Lab	1
CHM 342	Physical Chemistry II	3
CHM 342L	Physical Chemistry II Lab	1
CHM 381	Chemistry Seminar and Literature	0.5
<b>Junior or Senior</b>		
CHM 334	Chemical Analysis	4
CHM 334L	Chemical Analysis Lab	0
CHM 370	Biochemistry I: Macromolecules and Metabolism	3
CHM 370L	Biochemistry Lab	1
or CHM 371L	Advanced Biochemistry Lab	
CHM 391	Undergraduate Research	0-3
or CHM 392	Undergraduate Research	
or CHM 390	Chemical Research Experience	
Upper-level CHM elective		
<b>Senior</b>		
CHM 361	Inorganic Chemistry	3
CHM 361L	Inorganic Chemistry Lab	1

CHM 395	Senior Capstone	0.5
Upper-level CHM elective		

## Honors

Qualified majors are considered for honors in chemistry. To be graduated with the designation "Honors in Chemistry," a student must have a minimum GPA in chemistry courses of 3.3 and a minimum overall GPA of 3.0. In addition, the honors candidate must satisfactorily complete an approved research project, prepare a paper describing the project, and present results at a seminar for departmental approval. Honors thesis research must be conducted on the Wake Forest University campus with a WFU Chemistry faculty member as research adviser or co-adviser. For additional information, members of the departmental faculty should be consulted.

## Chemistry with Concentration in Biochemistry, B.S.

### Requirements

Requires 39.5-42.5 hours in chemistry and must include the following courses:

Code	Title	Hours
<b>Required Major Courses</b>		
CHM 111	College Chemistry I	3
CHM 111L	College Chemistry I Lab	1
CHM 122	Organic Chemistry I	3
or CHM 123	Organic Chemistry I Honors	
CHM 122L	Organic Chemistry I Lab	1
or CHM 123L	Organic Chemistry I Honors Lab	
CHM 223	Organic Chemistry II	3
CHM 223L	Organic Chemistry II Lab	1
CHM 280	College Chemistry II	3
CHM 280L	Theory and Methods of Quantitative Analysis Lab	1
CHM 334	Chemical Analysis	4
CHM 334L	Chemical Analysis Lab	0
CHM 341	Physical Chemistry I	3
CHM 341L	Physical Chemistry I Lab	1
CHM 361	Inorganic Chemistry	3
CHM 361L	Inorganic Chemistry Lab	1
CHM 370	Biochemistry I: Macromolecules and Metabolism	3
CHM 371L	Advanced Biochemistry Lab	1.5
CHM 373	Biochemistry II	3
CHM 381	Chemistry Seminar and Literature	0.5
CHM 395	Senior Capstone	0.5
Select one of the following options:		0-3
<b>Option 1:</b>		
CHM 390	Chemical Research Experience	
<b>Option 2:</b>		
Select no fewer than 1.5 hours of the following:		
CHM 391	Undergraduate Research	
CHM 392	Undergraduate Research	

Select one of the following:		3
CHM 321	Intermediate Organic Chemistry	
CHM 324	Medicinal Chemistry I	
CHM 342	Physical Chemistry II	
CHM 351	Special Topics in Chemistry	
CHM 362	Nanochemistry in Energy and Medicine	
CHM 364	Materials Chemistry	
CHM 366	Chemistry and Physics of Solid State Materials	
CHM 376	Biophysical Chemistry	
Any chemistry graduate class (POI)		
<b>Co-Requirements</b>		
BIO 265	Cellular and Molecular Biology	3
MST 112	Calculus with Analytic Geometry II	4
PHY 111	Mechanics Waves and Heat	4
or PHY 113	General Physics I	
or PHY 123	General Physics I - Studio Format	
PHY 114	General Physics II	4
or PHY 124	General Physics II - Studio Format	

For the **B.S. major with concentration in biochemistry**, the following schedule of chemistry and related courses is typical:

Code	Title	Hours
<b>First Year</b>		
CHM 111	College Chemistry I	3
CHM 111L	College Chemistry I Lab	1
CHM 122	Organic Chemistry I	3
or CHM 123	Organic Chemistry I Honors	
CHM 122L	Organic Chemistry I Lab	1
or CHM 123L	Organic Chemistry I Honors Lab	
BIO 150	Biology I	3
BIO 160	Biology II	3
MST 111	Calculus with Analytic Geometry I	4
MST 112	Calculus with Analytic Geometry II	4
<b>Sophomore</b>		
CHM 223	Organic Chemistry II	3
CHM 223L	Organic Chemistry II Lab	1
CHM 280	College Chemistry II	3
CHM 280L	Theory and Methods of Quantitative Analysis Lab	1
BIO 265	Cellular and Molecular Biology	3
PHY 111	Mechanics Waves and Heat	4
or PHY 113	General Physics I	
or PHY 123	General Physics I - Studio Format	
PHY 114	General Physics II	4
or PHY 124	General Physics II - Studio Format	
<b>Junior</b>		
CHM 370	Biochemistry I: Macromolecules and Metabolism	3
CHM 371L	Advanced Biochemistry Lab	1.5
CHM 381	Chemistry Seminar and Literature	0.5
<b>Junior or Senior</b>		
CHM 334	Chemical Analysis	4

CHM 334L	Chemical Analysis Lab	0
CHM 341	Physical Chemistry I	3
CHM 341L	Physical Chemistry I Lab	1
CHM 391	Undergraduate Research	0-3
or CHM 392	Undergraduate Research	
or CHM 390	Chemical Research Experience	
<b>Senior</b>		
CHM 361	Inorganic Chemistry	3
CHM 361L	Inorganic Chemistry Lab	1
CHM 373	Biochemistry II	3
CHM 395	Senior Capstone	0.5
Upper-level CHM elective		

## Honors

Qualified majors are considered for honors in chemistry. To be graduated with the designation "Honors in Chemistry," a student must have a minimum GPA in chemistry courses of 3.3 and a minimum overall GPA of 3.0. In addition, the honors candidate must satisfactorily complete an approved research project, prepare a paper describing the project, and present results at a seminar for departmental approval. Honors thesis research must be conducted on the Wake Forest University campus with a WFU Chemistry faculty member as research adviser or co-adviser. For additional information, members of the departmental faculty should be consulted.

## Chemistry with Concentration in Materials Chemistry, B.S.

### Requirements

Requires 43-46 hours in chemistry and must include the following courses:

Code	Title	Hours
<b>Required Major Courses</b>		
CHM 111	College Chemistry I	3
CHM 111L	College Chemistry I Lab	1
CHM 122	Organic Chemistry I	3
or CHM 123	Organic Chemistry I Honors	
CHM 122L	Organic Chemistry I Lab	1
or CHM 123L	Organic Chemistry I Honors Lab	
CHM 280	College Chemistry II	3
CHM 280L	Theory and Methods of Quantitative Analysis Lab	1
CHM 334	Chemical Analysis	4
CHM 334L	Chemical Analysis Lab	0
CHM 341	Physical Chemistry I	3
CHM 341L	Physical Chemistry I Lab	1
CHM 342	Physical Chemistry II	3
CHM 342L	Physical Chemistry II Lab	1
CHM 361	Inorganic Chemistry	3
CHM 361L	Inorganic Chemistry Lab	1
CHM 364	Materials Chemistry	3
CHM 364L	Materials Chemistry Lab	1

CHM 370	Biochemistry I: Macromolecules and Metabolism	3
CHM 370L	Biochemistry Lab	1
or CHM 371L	Advanced Biochemistry Lab	
CHM 381	Chemistry Seminar and Literature	0.5
CHM 395	Senior Capstone	0.5
Select one of the following Options:		0-3

Option 1:

CHM 390	Chemical Research Experience
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Option 2:

Select no fewer than 1.5 hours of the following:	
CHM 391	Undergraduate Research
CHM 392	Undergraduate Research

Select two of the following: 6

CHM 223	Organic Chemistry II
CHM 321	Intermediate Organic Chemistry
CHM 324	Medicinal Chemistry I
CHM 351	Special Topics in Chemistry
CHM 362	Nanochemistry in Energy and Medicine
CHM 366	Chemistry and Physics of Solid State Materials
CHM 373	Biochemistry II
CHM 376	Biophysical Chemistry
PHY 354	Introduction to Solid State Physics

#### Co-Requirements

PHY 111	Mechanics Waves and Heat	4
or PHY 113	General Physics I	
or PHY 123	General Physics I - Studio Format	
PHY 114	General Physics II	4
or PHY 124	General Physics II - Studio Format	
MST 112	Calculus with Analytic Geometry II	4
MST 113	Multivariable Calculus	4

For the **B.S. major with concentration in materials chemistry**, the following schedule of chemistry and related courses is typical:

Code	Title	Hours
<b>First Year</b>		
CHM 111	College Chemistry I	3
CHM 111L	College Chemistry I Lab	1
CHM 122	Organic Chemistry I	3
or CHM 123	Organic Chemistry I Honors	
CHM 122L	Organic Chemistry I Lab	1
or CHM 123L	Organic Chemistry I Honors Lab	
MST 111	Calculus with Analytic Geometry I	4
MST 112	Calculus with Analytic Geometry II	4
<b>Sophomore</b>		
CHM 223	Organic Chemistry II (Elective)	3
CHM 280	College Chemistry II	3
CHM 280L	Theory and Methods of Quantitative Analysis Lab	1
PHY 111	Mechanics Waves and Heat	4
or PHY 113	General Physics I	
or PHY 123	General Physics I - Studio Format	

PHY 114	General Physics II	4
or PHY 124	General Physics II - Studio Format	
MST 113	Multivariable Calculus	4
<b>Junior</b>		
CHM 341	Physical Chemistry I	3
CHM 341L	Physical Chemistry I Lab	1
CHM 342	Physical Chemistry II	3
CHM 342L	Physical Chemistry II Lab	1
CHM 381	Chemistry Seminar and Literature	0.5
<b>Junior or Senior</b>		
CHM 334	Chemical Analysis	4
CHM 334L	Chemical Analysis Lab	0
CHM 364	Materials Chemistry	3
CHM 364L	Materials Chemistry Lab	1
CHM 391	Undergraduate Research	0-3
or CHM 392	Undergraduate Research	
or CHM 390	Chemical Research Experience	
<b>Senior</b>		
CHM 361	Inorganic Chemistry	3
CHM 361L	Inorganic Chemistry Lab	1
CHM 370	Biochemistry I: Macromolecules and Metabolism	3
CHM 370L	Biochemistry Lab	1
or CHM 371L	Advanced Biochemistry Lab	
CHM 395	Senior Capstone	0.5
Upper-level CHM or PHY elective		

## Honors

Qualified majors are considered for honors in chemistry. To be graduated with the designation "Honors in Chemistry," a student must have a minimum GPA in chemistry courses of 3.3 and a minimum overall GPA of 3.0. In addition, the honors candidate must satisfactorily complete an approved research project, prepare a paper describing the project, and present results at a seminar for departmental approval. Honors thesis research must be conducted on the Wake Forest University campus with a WFU Chemistry faculty member as research adviser or co-adviser. For additional information, members of the departmental faculty should be consulted.

## Chemistry with Concentration in Medicinal Chemistry and Drug Discovery, B.S.

### Requirements

Requires 39.5-45.5 hours in chemistry and must include the following courses:

Code	Title	Hours
<b>Required Major Courses</b>		
CHM 111	College Chemistry I	3
CHM 111L	College Chemistry I Lab	1
CHM 122	Organic Chemistry I	3
or CHM 123	Organic Chemistry I Honors	
CHM 122L	Organic Chemistry I Lab	1

or CHM 123L	Organic Chemistry I Honors Lab	
CHM 223	Organic Chemistry II	3
CHM 223L	Organic Chemistry II Lab	1
CHM 280	College Chemistry II	3
CHM 280L	Theory and Methods of Quantitative Analysis Lab	1
CHM 324	Medicinal Chemistry I	3
CHM 324L	Medicinal Chemistry Laboratory	1.5
CHM 334	Chemical Analysis	4
CHM 334L	Chemical Analysis Lab	0
CHM 341	Physical Chemistry I	3
CHM 361	Inorganic Chemistry	3
CHM 361L	Inorganic Chemistry Lab	1
CHM 370	Biochemistry I: Macromolecules and Metabolism	3
CHM 370L	Biochemistry Lab	1
or CHM 371L	Advanced Biochemistry Lab	
CHM 381	Chemistry Seminar and Literature	0.5
CHM 395	Senior Capstone	0.5
Select one of the following Options:		0-3

#### Option 1:

CHM 390 Chemical Research Experience

#### Option 2:

Select no fewer than 1.5 hours of the following:

CHM 391 Undergraduate Research

CHM 392 Undergraduate Research

#### Select one of the Medicinal Chemistry electives:

CHM 321	Intermediate Organic Chemistry	3
CHM 373	Biochemistry II	3
CHM 376	Biophysical Chemistry	3
BIO 265	Cellular and Molecular Biology	3

#### Select one of the following:

CHM 321	Intermediate Organic Chemistry *	
CHM 342	Physical Chemistry II	
CHM 351	Special Topics in Chemistry	
CHM 362	Nanochemistry in Energy and Medicine	
CHM 364	Materials Chemistry	
CHM 366	Chemistry and Physics of Solid State Materials	
CHM 373	Biochemistry II *	
CHM 376	Biophysical Chemistry *	
Any chemistry graduate class (POI)		

#### Co-Requirements

BIO 150	Biology I	3
MST 112	Calculus with Analytic Geometry II	4
PHY 111	Mechanics Waves and Heat	4
or PHY 113	General Physics I	
or PHY 123	General Physics I - Studio Format	
PHY 114	General Physics II	4
or PHY 124	General Physics II - Studio Format	

\* Can only be used to fulfill this requirement if not also used to fill the medicinal chemistry elective requirement.

For the **B.S. major with concentration in medicinal chemistry and drug discovery**, the following schedule of chemistry and related courses is typical:

Code	Title	Hours
<b>First Year</b>		
CHM 111	College Chemistry I	3
CHM 111L	College Chemistry I Lab	1
CHM 122	Organic Chemistry I	3
or CHM 123	Organic Chemistry I Honors	
CHM 122L	Organic Chemistry I Lab	1
or CHM 123L	Organic Chemistry I Honors Lab	
MST 111	Calculus with Analytic Geometry I	4
MST 112	Calculus with Analytic Geometry II	4
<b>Sophomore</b>		
BIO 150	Biology I	3
CHM 223	Organic Chemistry II	3
CHM 223L	Organic Chemistry II Lab	1
CHM 280	College Chemistry II	3
CHM 280L	Theory and Methods of Quantitative Analysis Lab	1
PHY 111	Mechanics Waves and Heat	4
or PHY 113	General Physics I	
or PHY 123	General Physics I - Studio Format	
PHY 114	General Physics II	4
or PHY 124	General Physics II - Studio Format	
<b>Junior</b>		
CHM 370	Biochemistry I: Macromolecules and Metabolism	3
CHM 370L	Biochemistry Lab	1
or CHM 371L	Advanced Biochemistry Lab	
CHM 381	Chemistry Seminar and Literature	0.5
<b>Junior or Senior</b>		
CHM 334	Chemical Analysis	4
CHM 334L	Chemical Analysis Lab	0
CHM 341	Physical Chemistry I	3
CHM 391	Undergraduate Research	0-3
or CHM 392	Undergraduate Research	
or CHM 390	Chemical Research Experience	
Medicinal Chemistry Elective		
<b>Senior</b>		
CHM 324	Medicinal Chemistry I	3
CHM 324L	Medicinal Chemistry Laboratory	1.5
CHM 361	Inorganic Chemistry	3
CHM 361L	Inorganic Chemistry Lab	1
CHM 395	Senior Capstone	0.5
Upper-level CHM elective		

## Honors

Qualified majors are considered for honors in chemistry. To be graduated with the designation "Honors in Chemistry," a student must have a minimum GPA in chemistry courses of 3.3 and a minimum overall GPA of 3.0. In addition, the honors candidate must satisfactorily complete an approved research project, prepare a paper describing the project, and

present results at a seminar for departmental approval. Honors thesis research must be conducted on the Wake Forest University campus with a WFU Chemistry faculty member as research adviser or co-adviser. For additional information, members of the departmental faculty should be consulted.

## Chemistry, Minor Requirements

Requires at least 19 hours in chemistry and must include at least one of:

Code	Title	Hours
CHM 321	Intermediate Organic Chemistry	3
CHM 324	Medicinal Chemistry I	3
CHM 334	Chemical Analysis	4
CHM 341	Physical Chemistry I	3
CHM 342	Physical Chemistry II	3
CHM 351	Special Topics in Chemistry	3
CHM 361	Inorganic Chemistry	3
CHM 362	Nanochemistry in Energy and Medicine	3
CHM 364	Materials Chemistry	3
CHM 366	Chemistry and Physics of Solid State Materials	3
CHM 370	Biochemistry I: Macromolecules and Metabolism	3
CHM 373	Biochemistry II	3
CHM 376	Biophysical Chemistry	3

No more than nine hours of chemistry courses completed elsewhere can be counted toward the minor, and a minimum grade point average of 2.0 in Wake Forest chemistry courses is required to complete the minor.

## Classics (CLA)

The Department of Classics offers four majors and three minors: majors in Classical Languages, Classical Studies, Greek, and Latin, and minors in Classical Studies, Greek, and Latin. An overall minimum GPA of 2.0 is required for graduation in courses that compose a major in the department.

**Major/minor combinations.** Within the department no more than six hours of major credit may also count toward a minor.

**Greek and Latin courses** at the 100-level may not be taken pass-fail. Any exception to the policy must arise from exceptional circumstances and must be approved by the Chair of the department.

## Contact Information

Department of Classic (<http://college.wfu.edu/classics/>)s (<http://classics.wfu.edu/>)  
 Tribble Hall C301, PO Box 7343  
 Phone 336-758-5330

## Programs

### Majors

- Classical Languages, B.A.
- Classical Studies, BA



- Greek, B.A.
- Latin, B.A.

## Minors

- Classical Studies, Minor
- Greek, Minor
- Latin, Minor

## Courses

### Classics (CLA)

#### CLA 151. Ethics in Greece and Rome. (1.5 h)

Reading and discussion of Aristotle's Ethics and Cicero's On Moral Duties, with attention to our own ethical dilemmas. A knowledge of the Greek and Latin languages is not required.

#### CLA 252. Women, Gender, and Sexuality in Antiquity. (3 h)

Exploration of women's roles in the ancient Mediterranean world and the intersections of gender, sexuality, and power in Greek and Roman society through the study of historical, archaeological, artistic, and literary sources, with a variety of theoretical and methodological approaches. A knowledge of the Greek and Latin languages is not required. (CD, D)

#### CLA 255. Classical Epic: Iliad, Odyssey, Aeneid. (3 h)

Study of the three principal epic poems from ancient Greece and Rome. A knowledge of the Greek and Latin languages is not required. (D)

#### CLA 259. Vergil and His English Legacy. (3 h)

Study of Vergil's "Eclogues," "Georgics," and selected passages of the "Aeneid," and their reception by English literature, using translations and original works by writers of the sixteenth through the eighteenth centuries, including Spenser, Marlowe, Milton, Dryden, and Pope. Knowledge of Latin is not required. (D)

#### CLA 261. Greek Myth. (3 h)

Consideration, principally through close study of selected literary works, of Greek myth from the Classical, Archaic, and Hellenistic periods, and in Roman literature; the course also will consider Greek myth's afterlife in the modern period. A knowledge of the Greek language is not required. (D)

#### CLA 263. Greek Tragedy. (3 h)

Study of the plays of Aeschylus, Sophocles, and Euripides. A knowledge of the Greek language is not required. (D)

#### CLA 264. Greek & Roman Comedy. (3 h)

Study of representative works of Aristophanes, Menander, Plautus, and Terence, with attention to the performance and audiences of comedy and to the differences among and within comic genres. A knowledge of the Greek and Latin languages is not required. (D)

#### CLA 272. A Survey of Latin Literature (in English). (3 h)

Study of selections from Latin literature in English translation. A knowledge of Latin language is not required. (D)

#### CLA 280. Topics in the Ancient Mediterranean World. (3 h)

Study of topics in the literary and material culture of the Greco-Roman World. (CD, D)

#### CLA 281. Classics Beyond Whiteness. (1.5, 3 h)

Studies misconceptions that ancient Greeks and Romans were white; race in Graeco-Roman societies; the role of Classics in modern racial politics; and non-white approaches to Classics. Considers race as social construct; white supremacy, fragility, and privilege; and critical-race-theoretical study of ancient cultures. (CD, D only with the 3-hour option)

#### CLA 374. Special Topics. (1.5-3 h)

Special topics in classical literature and culture. May be repeated for credit.

#### CLA 375. The Age of Pericles. (3 h)

Study of Greek culture in all its aspects during the 5th century. A knowledge of the Greek language is not required. (CD, D)

#### CLA 376. The Age of Augustus. (3 h)

Study of Roman culture in all its aspects during the early Empire. A knowledge of the Latin language is not required. (CD, D)

#### CLA 381. Seminar in Classical Studies. (3 h)

Offered by members of the faculty on topics of their choice. A knowledge of Greek and Latin languages is not required. May be repeated for credit. P-any previous course in Classics, Greek, or Latin, or POI.

#### CLA 388. Individual Study. (1.5, 3 h)

Course may be repeated for a total of 6 hours. P-POI.

#### CLA 391. Honors in Classical Studies. (1.5 h)

Directed research for the honors paper. P-POD.

#### CLA 392. Honors in Classical Studies. (1.5 h)

Directed research for the honors paper. P-POD.

## Greek (GRK)

#### GRK 111. Elementary Greek. (3 h)

Introduction to the language; provides a foundation for reading the ancient authors. P-POD.

#### GRK 112. Elementary Greek. (3 h)

Introduction to the language; provides a foundation for reading the ancient authors. P-POD.

#### GRK 113. Intensive Elementary Greek. (3 h)

Accelerated introduction to the language; provides a foundation for reading the ancient authors. Not open to students who have received credit GRK 111-112. C-GRK 113L.

#### GRK 113L. Intensive Elementary Greek Lab. (2 h)

Concentration on sight-reading and composition in Greek. Must be taken in the same semester as GRK 113.

#### GRK 153. Intermediate Greek. (3 h)

Review of grammar; readings in classical authors. P-Greek 112 or equivalent.

#### GRK 154. Intensive Intermediate Greek. (3 h)

Review of grammar in the context of reading classical authors. P - 113 or equivalent. C-GRK 154L.

#### GRK 154L. Intensive Intermediate Greek Lab. (2 h)

Concentration on sight-reading and composition in Greek. Must be taken in the same semester as GRK 154.

#### GRK 201. Intermediate Greek. (3 h)

Review of grammar; readings in classical authors. P-GRK 153.

#### GRK 211. Introduction to Attic Prose. (3 h)

Selections from the dialogues of Plato or other Attic prose. P-GRK 153, 154 or equivalent.

#### GRK 312. Greek Poetry. (3 h)

Selections from the Iliad and the Odyssey or from didactic and lyric poetry. P - Greek 211 or equivalent.

#### GRK 321. Greek Readings. (1.5, 3 h)

Designed to meet individual needs and interests. Course may be repeated for a total of six credit hours. P-POI.

- GRK 325. Advanced Grammar and Composition. (3 h)**  
Intensive work in morphology and syntax, with practice in composition and stylistic analysis of selected readings. P—GRK 211 or equivalent.
- GRK 331. Greek Biblical Texts. (3 h)**  
Selections from Greek Biblical texts. P-GRK 211 or equivalent.
- GRK 341. Greek Tragedy. (3 h)**  
Close study of a selected tragedy or tragedies. P—GRK 211 or equivalent.
- GRK 342. Greek Comedy. (3 h)**  
Close study of a selected comedy or comedies of Aristophanes or Menander. P—GRK 211 or equivalent.
- GRK 391. Honors in Greek. (1.5 h)**  
Directed research for honors paper. P-POD.
- GRK 392. Honors in Greek. (1.5 h)**  
Directed research for honors paper. P-POD.

Latin (LAT)

- LAT 111. Elementary Latin. (3 h)**  
Introduction to the language; provides a foundation for reading in the ancient authors.
- LAT 112. Elementary Latin. (3 h)**  
Introduction to the language; provides a foundation for reading in the ancient authors.
- LAT 113. Intensive Elementary Latin. (3 h)**  
An introduction to the language; the course covers the material of LAT 111 and LAT 112 in one semester. Not open to students who have had LAT 111 or LAT 112.
- LAT 113L. Intensive Elementary Latin Lab. (2 h)**  
Concentration on sight-reading and composition in Latin. Must be taken in the same semester as LAT 113.
- LAT 120. Reading Medieval Latin. (1.5-3 h)**  
Introduction to post-classical Latin with readings in selected works from late antiquity and the middle ages. P-LAT 112 or equivalent.
- LAT 153. Intermediate Latin. (3 h)**  
Review of grammar and selected introductory readings. P-LAT 112, 113 or equivalent.
- LAT 153L. Intermediate Latin Lab. (2 h)**  
Concentration on sight-reading and composition in Latin. Must be taken in the same semester as LAT 153.
- LAT 211. Introduction to Latin Poetry. (3 h)**  
Readings from selected poets mainly of the late Republic and early Empire, with an introduction to literary criticism. P-LAT 153 or equivalent.
- LAT 212. Introduction to Latin Prose. (3 h)**  
Readings primarily from the works of Cicero, with attention to their artistry and historical context. P-LAT 153 or equivalent.
- LAT 316. Roman Lyric Poetry. (3 h)**  
Interpretation and evaluation of lyric poetry through readings from the poems of Catullus and Horace. P-LAT 211 or 212, or equivalent.
- LAT 318. Roman Epic Poetry. (3 h)**  
Reading in the epics of Virgil and Ovid, with attention to their position in the epic tradition. P-LAT 211 or 212, or equivalent.
- LAT 321. Roman Historians. (3 h)**  
Readings in the works of Sallust, Livy, or Tacitus, with attention to the historical background and the norms of ancient historiography. P-LAT 211 or 212, or equivalent.

- LAT 325. Roman Epistolography. (3 h)**  
Selected readings from the correspondence of Cecero and Pliny the Younger and the verse epistles of Horace and Ovid. P-LAT 211 or 212, or equivalent.
- LAT 326. Roman Comedy. (3 h)**  
Readings of selected comedies of Plautus and Terence, with a study of the traditions of comedy and dramatic techniques. P-LAT 211 or 212, or equivalent.
- LAT 331. Roman Elegy. (3 h)**  
Readings from the poems of Tibullus, Propertius, and Ovid, with study of the elegiac tradition. P-LAT 211 or 212, or equivalent.
- LAT 341. Roman Satire. (3 h)**  
Selected readings from Horace, Lucilius, Persius, or Juvenal, with attention to the origin and development of hexameter satire. P- LAT 211 or 212, or equivalent.
- LAT 343. Latin Readings. (1.5, 3 h)**  
Designed to meet individual need and interests. Course may be repeated for a total of six credit hours. P-POI.
- LAT 350. Advanced Grammar and Composition. (3 h)**  
Intensive work in morphology and syntax, with practice in composition and stylistic analysis of selected readings. P-LAT 211 or 212, or equivalent.
- LAT 360. Seminar in Latin Poetry. (3 h)**  
Advanced study in selected poets and genres. A research paper is required. P-LAT 211 or 212, or equivalent.
- LAT 380. Seminar in Latin Prose. (3 h)**  
Advanced study in selected authors and topics. A research paper is required. P-LAT 211 or 212, or equivalent.
- LAT 391. Honors in Latin. (1.5 h)**  
Directed research for the honors paper. P-POD.
- LAT 392. Honors in Latin. (1.5 h)**  
Directed research for the honors paper. P-POD.
- LAT 555. Latin Literature. (3 h)**

Faculty

- Chair** Mary L.B. Pendergraft  
**Professor** Mary L.B. Pendergraft  
**Associate Professors** T.H.M. Gellar-Goad, John M. Oksanish, Michael C. Sloan  
**Assistant Professor** Amy K. Lather  
**Associate Teaching Professor** Brian M. Warren  
**Visiting Assistant Professor** John K. Schafer

Classical Languages, B.A.  
Requirements

Requires at least 27 hours in the Department.  
For students emphasizing Latin the following are required:

Code	Title	Hours
Required Major Courses		
Select four courses in Latin beyond 153 *		12
Select 12 hours in Greek including at least one course above 154		12
CLA 281	Classics Beyond Whiteness	1.5, 3

\* Three must be at the 300-level and include LAT 350.

For students emphasizing Greek the following are required:

Code	Title	Hours
<b>Required Major Courses</b>		
Select four courses in Greek beyond 154 *		12
Select 12 hours in Latin including at least one course above 153		12
CLA 281	Classics Beyond Whiteness	1.5, 3

\* Three must be at the 300-level.

## Honors

Highly qualified majors are invited by the department to participate in the honors program in Latin, Greek, or Classical Studies. To be graduated with the designation "Honors in Latin," "Honors in Greek," or "Honors in Classical Studies," a student must complete an honors research project and pass a comprehensive oral examination. For additional information, members of the departmental faculty should be consulted. (Refer to the section "Honors Study (<https://bulletin.wfu.edu/special-programs/>)" in this bulletin for minimum college requirements.)

## Classical Studies, BA

### Requirements

Requires 30 hours in the department. The following are required:

Code	Title	Hours
CLA 281	Classics Beyond Whiteness	1.5, 3
CLA 375	The Age of Pericles	3
CLA 376	The Age of Augustus	3
CLA 381	Seminar in Classical Studies	3

Other courses may be substituted by permission of the department.

## Honors

Highly qualified majors are invited by the department to participate in the honors program in Latin, Greek, or Classical Studies. To be graduated with the designation "Honors in Latin," "Honors in Greek," or "Honors in Classical Studies," a student must complete an honors research project and pass a comprehensive oral examination. For additional information, members of the departmental faculty should be consulted. (Refer to the section "Honors Study (<https://bulletin.wfu.edu/special-programs/>)" in this bulletin for minimum college requirements.)

## Greek, B.A.

### Requirements

Requires 27 hours in the department beyond GRK 112 or GRK 113.

Code	Title	Hours
Select 24 hours in Greek		24
CLA 281	Classics Beyond Whiteness	1.5, 3

## Honors

Highly qualified majors are invited by the department to participate in the honors program in Latin, Greek, or Classical Studies. To be graduated

with the designation "Honors in Latin," "Honors in Greek," or "Honors in Classical Studies," a student must complete an honors research project and pass a comprehensive oral examination. For additional information, members of the departmental faculty should be consulted. (Refer to the section "Honors Study (<https://bulletin.wfu.edu/special-programs/>)" in this bulletin for minimum college requirements.)

## Latin, B.A.

### Requirements

Requires 27 hours in the department beyond LAT 153.

Code	Title	Hours
Select 21 hours in Latin		21
LAT 350	Advanced Grammar and Composition	3
CLA 281	Classics Beyond Whiteness	1.5, 3

## Honors

Highly qualified majors are invited by the department to participate in the honors program in Latin, Greek, or Classical Studies. To be graduated with the designation "Honors in Latin," "Honors in Greek," or "Honors in Classical Studies," a student must complete an honors research project and pass a comprehensive oral examination. For additional information, members of the departmental faculty should be consulted. (Refer to the section "Honors Study (<https://bulletin.wfu.edu/special-programs/>)" in this bulletin for minimum college requirements.)

## Classical Studies, Minor

### Requirements

Requires a minimum of 18 hours in the department.

Code	Title	Hours
<b>Required Courses</b>		
CLA 281	Classics Beyond Whiteness	1.5, 3
CLA 375	The Age of Pericles	3
or CLA 376	The Age of Augustus	
CLA 381	Seminar in Classical Studies	3

## Greek, Minor

### Requirements

Requires 15-17 hours:

Code	Title	Hours
GRK 153	Intermediate Greek	3
Or		
GRK 154 & 154L	Intensive Intermediate Greek and Intensive Intermediate Greek Lab	5
Select two 200 or 300 level courses in Greek		6
CLA 281	Classics Beyond Whiteness	1.5, 3
Select one additional course in CLA, GRK (300-level), or LAT		1.5-3

## Latin, Minor

### Requirements

Requires 15 hours:

Code	Title	Hours
Select three 200- or 300-level courses in Latin		9
CLA 281	Classics Beyond Whiteness	1.5,3
Select one or two additional course(s) in CLA, GRK, or LAT (300-level)		3-4.5

## Communication (COM)

The Communication Department studies the phenomenon of human communication in all its aspects. We support a liberal arts approach to communication through scholarship, creative production, and teaching in six concentrations: a general concentration, communication science, health communication, integrated communication strategies, media studies, and public advocacy. Our goal for undergraduate majors and minors is to prepare them for the responsibilities of citizenship and for the many career paths in which knowledge of communication is a critical asset.

### Contact Information

Communication Department (<http://college.wfu.edu/communication/>)  
Carswell Hall 117, Box 7347  
Phone 336-758-5405

### Programs

#### Major

- Communication, B.A.

#### Minor

- Communication, Minor

### Courses

#### Communication (COM)

##### COM 100. Introduction to Communication and Rhetoric. (1.5 h)

An introduction to the discipline of Communication through an overview of related subfields, including their history, influential theories, and trends in research and practice. (D)

##### COM 102. Debate and Advocacy. (3 h)

The use of argumentative techniques in oral advocacy: research, speeches, and debate. (D)

##### COM 110. Public Speaking. (3 h)

A study of the theory and practice of public address. Lab experiences in the preparation, delivery, and critique of informative and persuasive speeches. (D)

##### COM 113. Relational Communication. (3 h)

Introduction to relational communication theory, research and principles. (D)

##### COM 120. Introduction to Film and Media Aesthetics. (3 h)

Introduction to the major theories and aesthetics of motion pictures and other media forms through a study of styles related to writing, directing, cinematography, editing, and sound. (D)

##### COM 162. Introduction to Integrated Marketing Communications. (3 h)

Provides a broad and basic understanding of the principles of integrated marketing communication in all its forms. The course is a foundational course for the ICS concentration for those wishing to pursue marketing communication as a career. Covers the building blocks of integrated marketing communication, the strategic use of such communication to reach a specific target across multiple media platforms, and the understanding of how to develop and shape messages to suit platform, purpose and audience.

##### COM 215. Broadcast Journalism. (3 h)

An introduction to the theory and practice of broadcast journalism. Topics will include ethics, technology, and the media as industry. Projects will address writing, producing, and performing for radio and television. Also listed as JOU 355.

##### COM 220. Empirical Research in Communication. (3 h)

An introduction to methodological design and univariate statistics as used in communication research. (QR)

##### COM 225. Rhetorical Theory and Criticism. (3 h)

Introduces students to rhetorical theory and criticism with a view to researching and composing a critical essay in the field.

##### COM 230. Interactive Digital Media. (3 h)

Theoretical and applied study of new digital technologies. Students produce a short-form interactive media project. Offered only in Salamanca.

##### COM 245. Introduction to Mass Communication. (3 h)

A historical survey of mass media and an examination of major contemporary media issues. (D)

##### COM 247. Media Production I. (3 h)

Students produce a variety of short-form media projects. P-COM 120.

##### COM 250. Communication in Entrepreneurial Settings. (3 h)

This course examines the contemporary workplace, including startup organizations, freelance work, and gig work. We examine how communication underpins organizational culture, teamwork, mentoring and networking, diversity programming, and more. Reading and discussion are balanced with opportunities to engage and apply tools for workplace success. Also listed as ENT 250.

##### COM 262. Writing for Public Relations and Advertising. (3 h)

Principles and techniques of public relations and applied advertising. Students use case studies to develop public relations and advertising strategies. Also listed as JOU 350. (D)

##### COM 270. Special Seminar. (1-3 h)

An examination of selected topics in communication.

##### COM 280. Communication Internship I. (1.5-3 h)

Individual communication internships to be approved, supervised, and evaluated by an appropriate faculty adviser. Pass/Fail only. P-POI.

##### COM 282. Debate Practicum I. (1.5 h)

Individual projects in debate to be approved, supervised and evaluated by an appropriate faculty adviser. Pass/Fail only. P-POI.

##### COM 283. Debate Practicum II. (1.5 h)

Individual projects in debate to be approved, supervised and evaluated by an appropriate faculty adviser. Pass/Fail only. P-POI.

##### COM 284. Production Practicum I. (1.5 h)

Individual projects or collaborations with appropriate professionals in media production to be approved, supervised, and evaluated by a faculty advisor. Pass/Fail only. P-POI.



**COM 285. Production Practicum II. (1.5 h)**

Individual projects or collaborations with appropriate professionals in media production to be approved, supervised, and evaluated by a faculty advisor. Pass/Fail only. P-POI.

**COM 286. Individual Study. (1-3 h)**

Directed study in an area of interest to be approved and supervised by a faculty adviser. P-POI.

**COM 287. Research Practicum I. (1.5 h)**

Credit opportunities for students to collaborate with faculty on research projects. Awards credit to students assisting faculty with research initiatives led by the faculty. Projects may be short term, culminating in presentation or publication, or longitudinal, where the student participates in an on-going effort. Pass/Fail only. P-POI.

**COM 288. Research Practicum II. (1.5 h)**

Credit opportunities for students to collaborate with faculty on research projects. Awards credit to students assisting faculty with research initiatives led by the faculty. Projects may be short term, culminating in presentation or publication, or longitudinal, where the student participates in an on-going effort. Pass/Fail only. P-POI.

**COM 300. Ancient Persuasions: Rhetoric and Democracy in Greece and Rome. (3 h)**

A study of major writings in Greek and Roman rhetorical theory from the Sophists to Augustine.

**COM 301. Film Genre. (3 h)**

Explores the conventions and variations of film and media genres such as Science Fiction, Horror, Western, Anime, Epic, Noir, and others (content variable). Explores the history of the content in an international context from the beginning of the genre to the present. Film Genre may be repeated for credit as long as the genre type is different.

**COM 302. Argumentation Theory. (3 h)**

An examination of argumentation theory and criticism; examines both theoretical issues and social practices.

**COM 305. Communication and Ethics. (3 h)**

A study of the role of communication in ethical controversies.

**COM 307. The Prophetic Mode in American Public Discourse. (3 h)**

Investigates prophetism as a rhetorical act by examining Biblical forms of prophetic speech and investigating how these forms influence American public discourse.

**COM 308. Speechwriting. (3 h)**

Examines representative historic and contemporary speechwriting, including composition and delivery of ceremonial, legal, and political speeches. Builds practical knowledge through delivery, discussion, and interviews with professional speechwriters.

**COM 309. Visual Storytelling. (3 h)**

The course overviews digital media as well as studying the meaning of how visual images are used in our society. The course is designed to look at the changing landscape of visual storytelling.

**COM 310. Media Production II. (3 h)**

Students produce advanced media projects over which they assume significant creative control. P-COM 247.

**COM 311. Narrative Production. (3 h)**

From script to screen, covers theory and practice of digital cinema production by creating short fiction films with emphasis placed on storytelling and collaboration. Working solo and in groups, students develop their storytelling skills and gain experience with conceptualization, project development, camerawork, sound recording, and editing. P-COM 247.

**COM 312. Film History to 1945. (3 h)**

A survey of the developments of motion pictures to 1945. Includes lectures, readings, reports, and screenings.

**COM 313. Film History Since 1945. (3 h)**

A survey of the development of motion pictures from 1946 to the present day. Includes lectures, readings, reports, and screenings.

**COM 314. Media Effects. (3 h)**

Theory and research on the influence and effects of mass media on audiences. These include reception, cognitive processing, and attitudinal and behavioral influences.

**COM 315. Communication and Technology. (3 h)**

An exploration of how communication technologies influence the social, political, and organizational practices of everyday life.

**COM 316. Screenwriting. (3 h)**

Introduction to the art and practice of writing for the screen. Through numerous exercises, students learn to use experiences, observations, and imagination to create compelling characters and stories for a variety of mediums and complete an original, short screenplay.

**COM 317. Communication and Popular Culture. (3 h)**

Explores the relationship between contemporary media and popular culture from a cultural studies perspective using examples from media texts.

**COM 318. Culture and Sitcom. (3 h)**

Explores the intersection of American culture and the television situation comedy, one of the oldest and most ubiquitous forms of television programming.

**COM 319. Media Ethics. (3 h)**

Examines historical and contemporary ethical issues in the media professions within the context of selected major ethical theories while covering, among other areas, issues relevant to: journalism, advertising, public relations, filmmaking, and media management.

**COM 320. Media Theory and Criticism. (3 h)**

Critical study of media including a survey of major theoretical frameworks. P-COM 120.

**COM 323. Superheroes, Cinema, and American Mythology. (3 h)**

Examines the emergence of superhero films in American cinema as a representation and response to historical and ideological contexts.

**COM 324. Children and Media. (3 h)**

Investigates theory and research in media and child development in order to explore how children and adolescents process and are affected by electronic media from television to new media.

**COM 325. On Camera Performance. (3 h)**

Introduces the theory and practice of performing for the camera. Covers basic camera, commercial work, how-to videos, newscasting, and other performance formats.

**COM 326. Advanced Screenwriting. (3 h)**

An advanced approach to narrative theory as well as examination of the role of the screenwriter in the motion picture industry, the influence of film genre on screenwriting, and the politics of nontraditional narrative structures. Students are expected to complete an original, feature-length screenplay. P-COM 316.

**COM 327. Social Media Effects. (3 h)**

Explores how we use, make sense of and are affected by social media both intrapersonally and interpersonally. Traditional media and information processing theories are explored; recent research on social media effects is discussed.



**COM 329. The Arab-Israeli-Palestinian Conflict as a Communication Phenomenon. (3 h)**

Explores the evolution of the Arab-Israeli-Palestinian conflict as a communication phenomenon; focusing on the narratives of the parties to the conflict as viewed through the lens of extant communication-grounded conflict theory.

**COM 330. Communication and Conflict. (3 h)**

A review of the various theoretical perspectives on conflict and negotiation as well as methods for managing relational conflict.

**COM 331. Communication and Terrorism. (3 h)**

Examines domestic and international terrorism as grounded in extant communication theory, with emphasis on explicating the role that communication plays in current conceptualizations and responses to terrorism.

**COM 332. Sports, Culture, and Society. (3 h)**

Examines how sport media coverage frames our understanding of society's biggest social issues, including race, gender, and human rights and challenges students to find their voices on these issues through participatory exercises and production projects.

**COM 333. Business of Sports Media. (3 h)**

Examines the intersection of media content, production and business practices, and examines how the digital revolution is changing the game for content creators, leagues and teams.

**COM 334. Narrative Approaches to Entrepreneurship. (3 h)**

This course uses narrative theory to examine how myths, stories, and other tropes form the basis on which we understand entrepreneurs and entrepreneurship. Attention is given to diverse and alternative stories and practices. Students will collect and analyze entrepreneur narratives.

**COM 335. Survey of Organizational Communication. (3 h)**

An overview of the role of communication in constituting and maintaining the pattern of activities that sustain the modern organization.

**COM 336. Organizational Rhetoric. (3 h)**

Explores the persuasive nature of organizational messages—dealing with risk, reputation, image, legitimacy and strategic communication—including those exchanged between organizational members and those presented in behalf of the organization as a whole.

**COM 337. Social Media Marketing in the Creative Arts. (3 h)**

Explores how social media is changing not just what content creators produce, but also how creators engage with their audience through the use of social media and marketing techniques.

**COM 338. African-American Rhetoric. (3 h)**

This course explores how African Americans have invented a public voice in the twentieth century. The course focuses on how artistic cultural expression, in particular, has shaped black public speech. (CD)

**COM 339. Practices of Citizenship. (3 h)**

Explores the history and theory of citizenship as a deliberative practice linked to the rhetorical tradition of communication with an emphasis on participatory and deliberative skills as part of the process in which communities are formed and citizens emerge as members.

**COM 340. Democracy, Slavery and Sex: Emancipation Discourse from the Founding to the Civil War. (3 h)**

Examines the influence of emancipation movements on American public discourse by reading and analyzing original speeches and documents with emphasis on abolition of slavery and woman's rights.

**COM 341. Class, Race, Sex and War: Emancipation Discourse from the Civil War to the Second Wave of Feminism. (3 h)**

Examines the influence of emancipation movements on American public discourse by reading and analyzing original speeches and documents. Among the movements addressed are labor, civil rights, student protest, and women's liberation.

**COM 342. Political Communication. (3 h)**

Study of electoral communication, including candidate and media influences on campaign speeches, debates, and advertising.

**COM 343. Presidential Rhetoric. (3 h)**

Examines theory and practice of speechmaking and mediated presidential communication.

**COM 344. Conspiracy Theories in American Public Discourse. (3 h)**

Study of the role of conspiracy discourse in American public discourse from the nation's founding through modern events.

**COM 345. Rhetoric of Science and Technology. (3 h)**

Examination of how scientific and technological discourses function rhetorically in public arenas to affect non-scientific publics' understanding.

**COM 346. Sport, Media, and Communication. (3 h)**

Examines the role of sport in society, cultural, and institutional practice. Surveys the value represented by interpersonal and mediated messages regarding key dimensions of sport including competition, ethics, gender, and race.

**COM 347. Rhetoric of the Law. (3 h)**

Examination of legal discourses including trial and appeal processes through motions to closing arguments.

**COM 348. Legal Theory, Practice, and Communication. (3 h)**

Introduces students to legal education, the legal system and legal analysis. (Co-taught by Law and Communication faculty - summer)

**COM 349. Advocacy, Debate and the Law. (3 h)**

Students develop and critique speeches, debates, trial practice and moot court across a variety of legal speaking venues. (Co-taught by Law and Communication Faculty - summer).

**COM 350. Intercultural Communication. (3 h)**

Introduction to the study of communication phenomena between individuals and groups with different cultural backgrounds. (CD)

**COM 351. Comparative Communication. (1.5, 3 h)**

A comparison of communicative and linguistic processes in one or more national cultures with those of the United States. Also listed as LIN 351 and INS 349. Credit not given for both COM 351A and INS 349. (CD)

**COM 351A. Comparative Communication: Japan. (1.5, 3 h)****COM 351B. Comparative Communication: Russia. (1.5, 3 h)****COM 351C. Comparative Communication: Great Britain. (1.5, 3 h)****COM 351D. Comparative Communications: Multiple Countries. (1.5, 3 h)****COM 351E. Comparative Communication: China. (1.5, 3 h)****COM 352. Interpersonal Seminar. (3 h)**

Advanced study of theories and research in one or more of the specialized concentrations of interpersonal communications.

**COM 353. Persuasion. (3 h)**

An examination of theories and research concerning the process of social influence in contemporary society.

**COM 354. International Communication. (3 h)**

An in-depth look at the role of mass media in shaping communication between and about cultures using examples from traditional and emerging media systems. (CD)

**COM 355. Survey of Health Communication. (3 h)**

An examination of theories, research, and processes of health communication in contemporary society.

**COM 356. Health Communication: Patient-Provider. (3 h)**

Explores contemporary issues related to communication in health care contexts, notably theories and research on patient-provider communication.

**COM 357. Health Communication and Bioethics. (3 h)**

Examination of the principles behind designing, implementing, and evaluation a health campaign, including message design and application of media theories for behavior change.

**COM 358. Health Communication and Bioethics. (3 h)**

Examination of the principles behind designing, implementing, and evaluating a health campaign, including message design and application of media theories for behavior change.

**COM 360. Communication and Cultures of India: Immersed in India. (3 h)**

Examines the different patterns of communication of the people of India through an immersive experience, a journey from the Himalayas to the oceans, studying the connections between the geography, history, and cultures of India.

**COM 361. Family Communication and Health across the Lifespan. (3 h)**

Investigates how family communication intersects with physical, psychological, and social health across the lifespan.

**COM 362. Advanced Campaigns. (3 h)**

Creation of fully integrated communication campaigns for major brands, from uncovering target audience insights to articulating brand strategy and key messaging, through development of the big campaign idea and activation plans for the market. Culminates with team presentation pitches to their "client" and is designed for Communication majors who have demonstrated interest in pursuing careers in marketing communication. P-COM 262 or JOU 350.

**COM 363. Communication and Consumer Behavior. (3 h)**

Focuses on understanding the psychology of consumer purchasing behavior and how marketing communications can influence that. Examines consumer motivations, influences, decision-making processes, and behaviors as they relate to the development of a marketing communications strategy. P-COM 162.

**COM 364. Narrative, Communication, and Health. (3 h)**

Combines theory and research in social science with narrative in multiple forms: film, visual art, memoir, short story, and poetry. Explores the power of story to transform human lives with an emphasis on health. Asks: What is narrative? How does narrative shape who we are? How does narrative inform our understanding and experience of wellness and illness? How does narrative influence health communication in our personal relationships? What role can narrative play in medical education, medical practice, and public health campaigns? Through careful study and reflection, students discover how story can create positive change on a personal, professional, and societal level.

**COM 365. Imagination Project. (3 h)**

The production of short films, digital study guides, or E-books and/or other types of multimedia materials on important social, political, cultural and economic issues. Opportunities for students to immerse themselves in a topic and interact with scholars from various disciplines (topics vary each year).

**COM 370. Special Topics. (1-3 h)**

An examination of topics not covered in the regular curriculum.

**COM 380. Great Teachers. (1-3 h)**

An intensive study of the ideas of three noted scholars and teachers in the field of communication. Students will interact with each teacher during a two- to three-day visit to Wake Forest.

## Faculty

**Chair** Steven M. Giles

**Associate Chair** Marina Krcmar

**University Distinguished Chair in Communication Ethics and Professor** Michael J. Hyde

**Larry J. and LeeAnn E. Merlo Presidential Chair in Communication and Entrepreneurship and Associate Professor** Rebecca Gill

**Professors** Mary M. Dalton, Sandra Dickson, Michael David Hazen, Woodrow Hood, Marina Krcmar, Allan D. Loudon, Ananda Mitra, Randall G. Rogan

**Associate Professors** Robert J. Atchison, Steven M. Giles, John T. Llewellyn, Jennifer Johnson Priem, Alessandra Von Burg, Ron Von Burg, Margaret D. Zulick

**Assistant Professor** Mollie Rose Canzona

**Full Professor of the Practice** Justin Green (Head Debate Coach)

**Associate Teaching Professor** T. Nathaniel French

**Assistant Professors of the Practice** S. Cagney Gentry, Amber E. Kelsie (Associate Debate Coach)

**Assistant Teaching Professor** Katharine (Polly) A. Black, Rowena Rowie J.L. Kirby-Straker

**Visiting Assistant Professors** Thomas G. Southerland

**Manager of Communication/Media Laboratory** Ernest S. Jarrett

**Affiliated Teaching Professors** Peter Gilbert, Cara Pilson

**Adjunct Professor of the Practice (Bioethics)** Richard Robeson

## Communication, B.A.

Requires 30 hours, at least 12 of which must be at the 300-level.

All majors should begin their study of communication with these courses:

Code	Title	Hours
<b>Required Major Courses</b>		
COM 102 or COM 110	Debate and Advocacy Public Speaking	3
COM 220	Empirical Research in Communication	3
COM 225	Rhetorical Theory and Criticism	3

An overall minimum GPA of 2.0 in all communication courses attempted is required for graduation.

The Department of Communication offers its majors the opportunity to concentrate in special areas of study. Communication majors may choose to concentrate in Communication Science; Health, Environment and Risk Communication; Integrated Communication Strategies, Media Studies; and Public Advocacy. Students may also opt to choose courses across the concentrations as a general communication major.

In addition to the major course requirements, COM 102 or COM 110, COM 220, and COM 225, students who want to declare a concentration must successfully complete four courses within their chosen concentration. Students may declare two concentrations within the department; however, they may not count a course used to meet the required four courses for one concentration to fulfill requirements

for a second concentration. A list of courses approved to fulfill the concentrations in Communication Science; Health, Environment, and Risk Communication; Integrated Communication Strategies; Media Studies; and Public Advocacy is maintained by the Communication Department. Students declaring a concentration must do so prior to the beginning of their final semester.

## Study Abroad and Transfer Credit

Up to half of a student's total hours toward their communication degree can come from study abroad or transfer credits. Courses that do not significantly match COM courses in the academic bulletin may earn elective credit in COM (COM 500) or general University elective credit not applied to COM (COM 520). These courses do not satisfy the 300-level requirement. Transfer and study abroad courses must be approved by the Department prior to enrollment in those courses.

## Internship and Practicum

Internship and Practicum is open only to majors and minors who satisfy departmental requirements. For three hours of internship credit, students need a minimum of 120 on-site contact hours; applications for internship hours need to be approved by a faculty supervisor and the internship director, or the director of undergraduate studies. Only three internship credit hours can count towards a major or minor. Students may enroll in up to three hours of practicum in any semester (see course listings for practicum options). Practicum hours need to be approved by supervising faculty. In total, students can earn a maximum of six hours of practicum credit; however only three hours of these may be counted toward a major or minor in communication. All internship and practicum credits are graded pass/fail.

## Honors

Highly qualified majors are invited by the department to apply for admission to the honors program in communication. Invitations are sent to eligible students in late fall of their senior year. To graduate with the designation "Honors in Communication," students must have a major GPA of 3.8 or above prior to entering their final semester, declare for honors by the week before the last add/drop date in their final semester, select a faculty advisor and work with that advisor to revise a paper or creative work adapted from an existing piece. The final version of a paper or creative work must be submitted to the advisor and Undergraduate Committee for acceptance by the Committee. If accepted, the student must present the work at the award ceremony of the Department of Communication.

## Communication, Minor Requirements

The minor requires 18 hours.

Minors are encouraged to begin their study of communication with these courses:

Code	Title	Hours
<b>Required Courses</b>		
COM 102 or COM 110	Debate and Advocacy Public Speaking	3
COM 220	Empirical Research in Communication	3

or COM 225      Rhetorical Theory and Criticism

12 elective credit hours at least six of which at the 300-level

An overall minimum GPA of 2.0 in all communication courses attempted is required for graduation.

## Study Abroad and Transfer Credit

Up to half of a student's total hours toward their communication degree can come from study abroad or transfer credits. Courses that do not significantly match COM courses in the academic bulletin may earn elective credit in COM (COM 500) or general University elective credit not applied to COM (COM 520). These courses do not satisfy the 300-level requirement. Transfer and study abroad courses must be approved by the Department prior to enrollment in those courses.

## Internship and Practicum

Internship and Practicum is open only to majors and minors who satisfy departmental requirements. For three hours of internship credit, students need a minimum of 120 on-site contact hours; applications for internship hours need to be approved by a faculty supervisor and the internship director, or the director of undergraduate studies. Only three internship credit hours can count towards a major or minor. Students may enroll in up to three hours of practicum in any semester (see course listings for practicum options). Practicum hours need to be approved by supervising faculty. In total, students can earn a maximum of six hours of practicum credit; however only three hours of these may be counted toward a major or minor in communication. All internship and practicum credits are graded pass/fail.

## Computer Science (CSC)

A minimum GPA of 2.0 in the computer science courses that comprise a major or minor in the department is required for graduation.

Students who are enrolled at Wake Forest University may not take courses in computer science at other institutions to satisfy divisional requirements.

Students with a special interest in multidisciplinary work should consider a program of study that combines computer science with another discipline through either a double major or a minor.

## Planning for a Major or Minor in Computer Science

Students do **not** need prior computer science experience to major in computer science. While not required, students interested in the major are encouraged to:

- take CSC 111 and MST 117 in their freshman year. Students with appropriate experience or AP scores may skip CSC 111 and go straight to CSC 112. Credit is given for CSC 111 with an AP score of 5. With an AP score of 4, students may skip CSC 111 but will not receive credit.
- take CSC 112 and CSC 201 as early as feasible. Completing these courses in the sophomore year provides the most flexibility in scheduling other required courses and electives. While not necessary, completing CSC 111, CSC 112, CSC 201, and MST 117 by the end of the fall semester of the sophomore year provides the best flexibility, especially for the BS.

- consider taking another 200-level course in the sophomore year. Reviewing prerequisites for the 300-level electives may help in the decision regarding which 200-level courses to take early. For example, CSC 250 and CSC 251 are prerequisites for CSC 348.

To declare a major or minor in computer science, the student must complete CSC 111 or CSC 112 with a grade of at least a C or receive credit through AP Computer Science by passing the exam with a score of 5.

## Transfer Credit

A maximum of 7 hours at the 200-level or above may be transferred toward the BA or BS in computer science, with a maximum of 3 hours at the 300 level. For the computer science minor, all computer science electives at 193-level and above must be taken at Wake Forest.

## Contact Information

Department of Computer Science (<http://college.wfu.edu/cs/>)  
Manchester Hall 233, Box 7311  
Phone 336-758-4982

## Programs Majors

- Computer Science, B.A.
- Computer Science, B.S.

## Minor

- Computer Science, Minor

## Courses

### Computer Science (CSC)

#### CSC 101. Overview of Computer Science. (3 h)

An introduction to fundamental principles of computer science including abstraction, data and information, the World Wide Web, algorithms, programs, creative computer use, and the global impact of computing. Students cultivate their understanding by working with data, logically solving problems individually and collaboratively, and writing simple computer programs. May not be counted towards the computer science major or minor. (D)

#### CSC 102. Problem Solving with Python. (3 h)

An introduction to fundamental principles of computer science including abstraction, data and information, algorithm development, and computer programming. Students apply computational problem solving skills to representative problems from a range of domains using the Python programming language. Appropriate for students who want computing experience applicable to other disciplines. May not be counted towards the computer science major or minor. (D)

#### CSC 111. Introduction to Computer Science. (4 h)

Introduction to computer programming and algorithmic problem solving in an object-oriented programming language. Topics include basic control structures, methods, parameters, objects, classes, arrays, and program testing and debugging. Recommended as the first course for students considering a major or minor in computer science. (D)

#### CSC 112. Fundamentals of Computer Science. (4 h)

A study of algorithm development and problem solving using top-down design, data abstraction, object-oriented programming, and program debugging and testing. Topics include memory allocation, recursion, data structures such as arrays, lists, stacks, queues, and trees, simple sorting and searching algorithms, and algorithm complexity. P-CSC 111 or POI. (D)

#### CSC 165. Problem Solving Seminar. (1 h)

A weekly seminar designed for students to develop their problem solving skills designing and implementing software. Does not count towards the computer science major or minor. May be taken twice. Pass/Fail. P-CSC 112 or POI.

#### CSC 191. Special Topics. (1-3 h)

Topics in computer science that are not covered in regular courses or that give special practice in skills used in other courses. Not to be counted toward the bachelor of science in computer science. May be repeated for up to 6 hours if the topic changes.

#### CSC 192. STEM Incubator. (1 h)

An engaging and relevant introduction to STEM (science, technology, engineering, and mathematics) through creative exploration, collaboration, and computational problem-solving. Pass/Fail. May be repeated once.

#### CSC 192H. Honors STEM Incubator. (1 h)

Leadership role in developing STEM (science, technology, engineering, and mathematics) ideas and applications through scientific exploration, creative collaboration, and computational problem-solving. For students with some programming experience. Pass/Fail. May be repeated once. P - POI.

#### CSC 193. Independent Study. (1-3 h)

A course of independent study directed by a faculty adviser, not to be counted toward the bachelor of science in computer science. May be repeated for up to 3 hours. Enrollment requires prearrangement with a computer science faculty member and departmental approval P-POI.

#### CSC 201. Data Structures and Algorithms. (3 h)

A study of fundamental data structures and the algorithms that act upon them. Data structure topics include the application, implementation, and complexity analysis of trees, hash tables, heaps, maps, sets, and graphs. Algorithmic topics include advanced sorting and searching methods and an introduction to divide-and-conquer and greedy techniques, graph algorithms, backtracking, and dynamic programming. P-CSC 112 and MST 117. (D)

#### CSC 211. Computer Organization. (4 h)

Lecture and laboratory. Computer organization from the perspective of instructions, including the central processor, busses, input and output units, and memory units. A weekly two-hour laboratory covers combinational logic, loaders and linkers, assembly language, address computation, and other architecture-related functions. Lab-2 hours. P-CSC 111. (D)

#### CSC 221. Data Structures and Algorithms I. (3 h)

Analysis, implementation, and application of abstract data structures such as lists, stacks, queues, trees, hash tables, heaps, and graphs. Complexity analysis of algorithms that operate upon these structures. P-CSC 112. P or C-MST 117. (D)



**CSC 222. Data Structures and Algorithms II. (3 h)**

Study of algorithms, algorithm design strategies, and the derivation of time complexity bounds. Case studies illustrate greedy algorithms, divide and conquer, backtracking, and dynamic programming techniques. An introduction to the classes P, NP, NP-complete, and Turing decidability is included. P-CSC 221 and MST 111 or 112. (QR)

**CSC 231. Programming Languages. (3 h)**

Comparative study of programming language paradigms, including imperative languages, functional programming, logic programming, and object-oriented programming. Syntax, semantics, parsing, grammars, and issues in language design are covered. P-CSC 112 and MST 117.

**CSC 241. Computer Systems. (4 h)**

Lecture and laboratory. Introduction to concepts of operating systems and networks including processor and memory management, concurrency, and protocol independent data communications. Lab-2 hours. P-CSC 112 and MST 117.

**CSC 250. Computer Systems I. (4 h)**

Study of computer system mechanisms supporting program execution, with a focus on mapping programs to underlying hardware. Topics include data representation, assembly language, processor architecture, and the memory system, with an introduction to system-level programming. P-CSC 112 and MST 117. (D)

**CSC 251. Computer Systems II. (3 h)**

Study of computer system mechanisms supporting program execution, with a focus on process and resource management. Topics include process control, virtual memory, concurrency, parallelism, file-based and network-based I/O, and additional coverage of system-level programming. P-CSC 250.

**CSC 301. Algorithm Design and Analysis. (3 h)**

A study of techniques for designing algorithms, analyzing their time and space complexity, and demonstrating their correctness. The algorithm design techniques include divide-and-conquer, greedy algorithms, dynamic programming, randomized algorithms, string processing algorithms, and parallel algorithms. The algorithm analysis includes computational models, best/average/worst case analysis, and computational complexity (including lower bounds and NP-completeness). P-CSC 201 and MST 112. (QR)

**CSC 311. Computer Architecture. (3 h)**

An in-depth study of computer system and architecture design. Topics include processor design, memory hierarchy, external storage devices, interface design, and parallel architectures. P-CSC 211 or 250.

**CSC 321. Database Management Systems. (3 h)**

Introduction to database management systems. Topics include data independence, database models, query languages, security, integrity, and transactions. P-CSC 201 or 221.

**CSC 322. Data Management and Analytics. (3 h)**

Management, analysis, and visualization of large-scale data sets. Topics include key-value databases, distributed file systems, map-reduce techniques, similarity measures, link analysis, and clustering. P-CSC 321.

**CSC 331. Software Engineering. (3 h)**

Study of fundamental topics in software engineering including software processes, agile software development and project management, requirements engineering, system modeling, design patterns and implementation, and software testing. Students practice software engineering principles through team projects. P-CSC 201 or 221.

**CSC 332. Mobile and Pervasive Computing. (3 h)**

Study of the fundamental design concepts and software principles underlying mobile and pervasive computing, including mobile interface design, data management, mobile networks, location aware computing, and mobile security. Involves significant programming on modern mobile platforms. P-CSC 201 or 221.

**CSC 333. Principles of Translators for Compilers and Interpreters. (3 h)**

Study of techniques for translating high-level programming languages to a target language. Typical target languages include Java bytecode and assembly language. Topics include lexical analysis, parsing, intermediate representations, language semantics, code generation, and optimization. P-CSC 231 and either CSC 211 or 250.

**CSC 341. Operating Systems. (3 h)**

Study of the different modules that compose a modern operating system. In-depth study of concurrency, processor management, memory management, file management, and security. P-CSC 241 or 251.

**CSC 343. Internet Protocols. (3 h)**

Study of wide area connectivity through interconnection networks. Emphasis is placed on Internet architecture and protocols. Topics include addressing, routing, multicasting, quality of service, and network security. P-CSC 241 or 251.

**CSC 346. Parallel Computation. (3 h)**

Study of techniques for parallel and high performance computing. Topics include an overview of modern high-performance computer design, pipelining, concurrency, data dependency, shared memory, message passing, and graphics processors. Select parallel algorithms and methods for asymptotic scalability analysis are also presented. Assignments may include coding with OpenMP, MPI, and the CUDA library. P-CSC 201 or 221.

**CSC 347. GPU Programming. (3 h)**

An introduction to general purpose parallel program development on Graphics Processing Units (GPUs). Topics covered will include data parallelism, memory and data locality, parallel algorithm patterns and performance metrics, and application test studies. P-CSC 201 or 221 and MST 121 or 205.

**CSC 348. Computer Security. (3 h)**

Introduction to computer security concepts and associated theory. Detailed coverage of the core concepts of access control, cryptography, trusted computing bases, digital signatures, authentication, network security, and secure architectures. Legal issues, security policies, risk management, certification and accreditation are covered in their supporting roles. Students will learn to analyze, design, and build secure systems of moderate complexity. P-CSC 241 or 251.

**CSC 352. Numerical Linear Algebra. (3 h)**

Numerical methods for solving matrix and related problems in science and engineering using a high-level matrix-oriented language such as MATLAB. Topics include systems of linear equations, least squares methods, and eigenvalue computations. Special emphasis given to applications. Also listed as MST 326. P-MST 112; and MST 121 or 205. (D)

**CSC 355. Introduction to Numerical Methods. (3 h)**

Numerical computations on modern computer architectures; floating-point arithmetic and round-off error. Programming in a scientific/engineering language such as MATLAB, C, or FORTRAN. Algorithms and computer techniques for the solution of problems such as roots of functions, approximation, integration, systems of linear equations, and least squares methods. Also listed as MST 355. P-MST 112; and MST 121 or 205. (D)



**CSC 361. Digital Media. (3 h)**

Study of the mathematics and algorithms underlying digital sounds, image, and video manipulation. Topics may include sampling and quantization, resolution, filters, transforms, data encoding and compression, multimedia file types and transmission, 3D printing, and digital media in multimedia and web programming. P-CSC 201 or 221 and MST 111 or 112.

**CSC 363. Computer Graphics. (3 h)**

Study of software and hardware techniques in computer graphics. Topics include line and polygon drawing, hidden line and surface techniques, transformations, and ray tracing. P-CSC 201 or 221; and either MST 121 or 205.

**CSC 365. Image Processing Fundamentals. (3 h)**

Study of the basic theory and algorithms for image enhancement, restoration, segmentation, and analysis. P-CSC 112; and MST 121 or 205.

**CSC 371. Artificial Intelligence. (3 h)**

An overview of areas of study in artificial intelligence. Topics are chosen from among knowledge representation, formal logic, fuzzy logic, intelligent agents, expert systems, machine learning, robotics, and natural language processing. P-CSC 201 or 221.

**CSC 373. Data Mining. (3 h)**

An overview of data mining methods and algorithms for classification, association analysis, clustering, and anomaly detection. A major focus will be on the implementation of algorithms for and design and construction of solutions to data mining problems. Applications and ethical considerations of data mining in humanities, arts, and healthcare are discussed. P-CSC 201 or 221.

**CSC 374. Machine Learning. (3 h)**

An introduction to concepts and application of machine learning algorithms and techniques, focusing on supervised and unsupervised learning. Students learn the theoretical concepts behind several types of machine learning algorithms and gain practical experience applying them. Algorithms covered could include logistic regression, support vector machines, regularization, dimensional reduction, clustering, and neural networks. P-CSC 201 or 221, MST 112 and MST 121 or 205.

**CSC 375. Neural Networks and Deep Learning. (3 h)**

An introduction to concepts and applications of neural networks and deep learning, a branch of machine learning that uses additional layers of high-level representations of data to maximize performance on a given task. The topics covered may include basic neural networks, deep neural networks, and convolutional and recurrent neural networks. Students learn the theoretical concepts behind several types of neural network algorithms and gain practical experience applying them. P-CSC 201 or 221, MST 112, and MST 121 or 205.

**CSC 385. Bioinformatics. (3 h)**

Introduction to computational approaches essential to modern biological inquiry. Approaches may include large biological dataset analyses, sequence similarity and motif searches, and analysis of high-throughput genomic technologies. Emphasizes interdisciplinary interaction and communication. Also listed as BIO 385 and PHY 385. P-CSC 201 or 221 (and BIO 150, 150L, 160, and 160L if taken as BIO 385) or POI.

**CSC 387. Computational Systems Biology. (3 h)**

Introduction of concepts and development of skills for comprehension of systems biology problems, including both biological and computational aspects. Topics may include genome-wide transcriptomic analysis, protein interaction networks, large-scale proteomics experiments, and computational approaches for modeling, storing, and analyzing the resulting data sets. Emphasizes interdisciplinary interaction and communication. Also listed as BIO 387. P-CSC 201 or 221 (also requires BIO 150, 150L, 160, and 160L if taken as BIO 387) or POI.

**CSC 391. Selected Topics. (1-3 h)**

Topics in computer science that are not studied in regular courses or which further examine topics covered in regular courses. May be repeated if topic changes. P - any 200-level CSC course and POI.

**CSC 393. Individual Study. (1-3 h)**

Independent study directed by a faculty adviser. By prearrangement. No more than three hours may be counted toward a computer science major or minor. Enrollment requires prearrangement with a computer science faculty member and departmental approval. P-any 200-level CSC course and POI.

**CSC 399. Computer Science Mastery Exam. (0 h)**

Evaluation of student mastery of core topics in the computer science discipline through standardized testing. Taken during the senior year. Pass/Fail.

## Faculty

**Chair** William Turkett

**Reynolds Professor of Computer Science and Math (Emeritus)** Robert J. Plemmons

**Professors** Jennifer J. Burg, Errin W. Fulp, V. Paúl Pauca, Peter Santiago

**Associate Professors** Daniel A. Cañas, Samuel Cho, Stan J.

Thomas, William H. Turkett Jr.

**Assistant Professor** Grey Ballard, Natalia Khuri, Sarra Alqahtani, Minghan Chen

**Affiliate Assistant Professor** James Pease

**Wright Presidential Chair and Professor of Practice** Ron Doyle

**Adjunct Professors** Kelly Kuykendall, Rob Robless, Sami Khuri

## Computer Science, B.A.

### Requirements

Requires a minimum of 30 hours in computer science and three courses in mathematics or statistics.

Code	Title	Hours
<b>Required Major Courses</b>		
CSC 111	Introduction to Computer Science	4
CSC 112	Fundamentals of Computer Science	4
CSC 201	Data Structures and Algorithms	3
CSC 250	Computer Systems I	4
CSC 251	Computer Systems II	3
CSC 399	Computer Science Mastery Exam	0
Select three hours at the 191-level or higher		3
Select three hours at the 200-level or higher		3
Select six hours at the 300-level or higher		6
<b>Co-Requirements</b>		
MST 117	Discrete Mathematics	4
MST 121	Linear Algebra I	4

or MST 205	Introduction to Linear Algebra and Differential Equations	
Select one of the following:		3-4
MST 112	Calculus with Analytic Geometry II	
STA 111	Elementary Probability and Statistics	
STA 112	Introduction to Regression and Data Science	
Any statistics course approved by the Computer Science Department		

## Honors

Highly qualified majors are invited by the department chair to apply for admission to the Honors program. Students not invited may petition the department chair to enter the Honors program. To be graduated with a designation of "Honors in Computer Science," students must satisfactorily complete a senior Honors report and graduate with a minimum GPA of 3.5 in the major and 3.0 in all college work. The Honors designation does not carry academic credit. Rather, it is intended as a special project that reflects the student's ability to go above and beyond the usual course work and carries significant prestige for graduation. The Honors designation appears on the student's transcript.

## Computer Science, B.S.

### Requirements

Requires a minimum of 36 hours in computer science and three courses in mathematics.

Code	Title	Hours
<b>Required Major Courses</b>		
CSC 111	Introduction to Computer Science	4
CSC 112	Fundamentals of Computer Science	4
CSC 201	Data Structures and Algorithms	3
CSC 231	Programming Languages	3
CSC 250	Computer Systems I	4
CSC 251	Computer Systems II	3
CSC 301	Algorithm Design and Analysis	3
CSC 399	Computer Science Mastery Exam	0
Select at least 12 hours in computer science courses at the 300-level or higher		12
<b>Co-Requirements</b>		
MST 112	Calculus with Analytic Geometry II	4
MST 117	Discrete Mathematics	4
MST 121	Linear Algebra I	4
or MST 205	Introduction to Linear Algebra and Differential Equations	

## Honors

Highly qualified majors are invited by the department chair to apply for admission to the Honors program. Students not invited may petition the department chair to enter the Honors program. To be graduated with a designation of "Honors in Computer Science," students must satisfactorily complete a senior Honors report and graduate with a minimum GPA of 3.5 in the major and 3.0 in all college work. The Honors designation does not carry academic credit. Rather, it is intended as a

special project that reflects the student's ability to go above and beyond the usual course work and carries significant prestige for graduation. The Honors designation appears on the student's transcript.

## Computer Science, Minor

Requires a minimum of 17 hours in computer science and MST 117.

Code	Title	Hours
CSC 111	Introduction to Computer Science	4
CSC 112	Fundamentals of Computer Science	4
CSC 201	Data Structures and Algorithms	3
Select three hours at the 191-level or higher		3
Select three hours at the 300-level or higher		3
MST 117	Discrete Mathematics	4

## Counseling (CNS)

The Department of Counseling offers courses at the graduate and undergraduate levels.

The Health and Human Services minor allows students to learn basic concepts and skills applicable to allied helping fields that are identified as health and human services. The goal of health and human services work is to improve the quality of life for those who are served and facilitate positive changes for individuals and communities. Therefore this minor focuses on knowledge and abilities for the service professions such as counseling, social work, medicine, dentistry, health policy, allied medical sciences, athletic training, physical therapy, and health promotion. Students supplement their major field of study by learning skills related to health and human services.

## Contact Information

Department of Counseling (<http://college.wfu.edu/counseling/>)  
 Carswell 216, Box 7406  
 Phone 336-758-6502

## Programs Minor

- Health and Human Services, Minor

## Courses Counseling (CNS)

### CNS 334. Ethics in Health and Human Services. (3 h)

Investigation of the ethical parameters of health and human services work. Topics include least restrictive interventions, privacy, human dignity and compassionate service. NOHS standards will be studied.

### CNS 335. Health and Human Services in a Diverse Society. (3 h)

Covers the range and characteristics of health and human services systems and organization, the populations served and their needs and the models for prevention, maintenance, intervention, rehabilitation and healthy functioning. (CD)

### CNS 337. Skills in Human Services. (3 h)

Introduction to communication skills of listening, reflecting, questioning, and problem-solving. These skills will be examined and practiced using role play and simulations.

**CNS 340. Professional Orientation to Health and Human Services. (3 h)**  
Provides an overview of health and human services including history, roles, organizational structures, ethics, standards, specializations, and credentialing. Public policy processes and contemporary issues are also considered.

**CNS 342. Group Procedures. (3 h)**

A conceptual exploration of the psychological dynamics and interpersonal communication of teams and systems including structure, leadership models, process and practice, stages of development, techniques, and ethical principles.

**CNS 350. Wellness and Prevention. (3 h)**

An investigation of holistic approaches to wellness and prevention; frameworks for increasing positive well-being through empirically supported, strength-based concepts.; levels of prevention across applied health and human services settings.

**CNS 352. Addiction. (3 h)**

An exploration of the causes of addiction and pathways to recovery. Medical aspects of addiction and the impact of addiction on the brain and body, theories and models of addiction and recovery, and diagnosis and treatment of persons with substance abuse and co-occurring disorders are considered.

**CNS 353. College Student Development. (2 h)**

A course of study for resident advisors that provides the skills and knowledge necessary to work successfully with college students in a residence environment. Includes student development theory, coping with behavior problems, crisis management, mediating conflict, and other issues.

**CNS 364. Creative Arts in Counseling. (3 h)**

Examines the history, theories, processes and techniques of using the creative arts in counseling with clients throughout the lifespan. Attention is given to the visual and performing arts such as drawing, imagery, photography, cartooning, cinema, movement, dance, literature, drama and music. Juniors and Seniors only.

**CNS 396. Independent Study. (1-3 h)**

Independent study with faculty guidance. May be repeated for up to 6 credit hours. By prearrangement.

## Faculty

**Chair** Nathaniel N. Ivers

**Professors** Samuel T. Gladding, José A. Villalba

**Associate Professors** Erin E. Binkley, Philip B. Clarke, Seth C. Hayden, Nathaniel N. Ivers, Debbie W. Newsome, Jennifer L. Rogers, Mark B. Scholl

**Assistant Professors** Donald R. Casares, Jamie E. Crockett, Isabel C. Farrell, Michelle R. Ghoston, Jeremy R. Goshorn, David A. Johnson, Michelle D. Mitchell

**Associate Teaching Professor** Tammy H. Cashwell, Allison M. Forti

**Assistant Teaching Professors** Cheyenne Carter, Nikki C. Elston, J. Robert Nations

**Visiting Assistant Professor** Sarah A. Moore

**Clinical Program Manager** Carla H. Emerson

## Health and Human Services, Minor Requirements

Requires a minimum of 15 hours. Each course must be completed with a grade of C or better. Courses taken as pass/fail do not count toward the minor. Students intending to complete this minor should consult with the

health and human services minor coordinator early in their sophomore year.

Code	Title	Hours
CNS 334	Ethics in Health and Human Services	3
CNS 335	Health and Human Services in a Diverse Society	3
CNS 337	Skills in Human Services	3
CNS 340	Professional Orientation to Health and Human Services	3
CNS 342	Group Procedures	3

## Cultural Heritage and Preservation Studies (CHP)

Interdisciplinary Minor

The Departments of Anthropology, Art, History, and Music offer an interdisciplinary minor in Cultural Heritage and Preservation Studies which gives students education and experience in the field of historic preservation and cultural heritage studies aimed at the protection and enhancement of archaeological, historical, and architectural resources. The minor provides focused preparation for graduate study and/or employment in museums; preservation, conservation, and other cultural non-profit organizations; and public cultural agencies.

## Contact Information

Cultural Heritage & Preservation Studies (<http://college.wfu.edu/chp/>)

## Programs Minor

- Cultural Heritage & Preservation Studies, Minor

## Courses

### Cultural Heritage and Preservation Studies (CHP)

**CHP 200. Special Topics. (1-3 h)**

Cultural Heritage and Preservation Studies topics of special interest. Topic varies with instructor. May be repeated for credit.

**CHP 300. Internship. (3 h)**

Internship in the community that involves both hands-on experience and academic study in the broad field of cultural heritage and preservation studies. To be arranged in advance with the program coordinator. P - POI.

## Faculty

**Director**

Dr. Lisa Blee, Associate Professor of History

**Core Faculty**

Dr. Chanchal Dadlani, Associate Professor of Art History

Dr. Carla Hernandez Garavito, Assistant Professor of Anthropological Archaeology

**Affiliated Faculty**

Dr. Elizabeth Clendinning - Assistant Professor of Music

Dr. Andrew Gurstelle - Assistant Teaching Professor of Anthropology and Director of the Museum of Anthropology

Dr. Stephanie Koscak - Associate Professor of History  
Dr. AJ Mazaris, Director LGBTQ+ Center  
Dr. Morna O'Neill - Associate Professor of Art History  
Dr. John Ruddiman - Associate Professor of History  
Dr. Paul Thacker - Associate Professor of Anthropology

# Cultural Heritage & Preservation Studies, Minor

## Requirements

The **minor** requires 18 hours distributed among at least three departments.

Code	Title	Hours
<b>Core Courses</b>		
Select three of the following required courses distributed across three departments:		9
ANT 112	Introduction to Archaeology	
ANT 190	Introduction to Museum Studies	
ART 105	History of World Architecture	
ART 241	Ancient Art and Architecture	
HST 366	Historic Preservation and Conservation	
HST 367	Public History	
MUS 109/209	Introduction to the Music of World Cultures	
Select a three hour internship or practicum course in one of the affiliated departments		3
Select the remaining six hours from the following:		6
<b>Additional Core Courses</b>		
Approved Elective Courses ( <a href="https://bulletin.wfu.edu/undergraduate/departments-programs/cultural-heritage-preservation-studies/minor-cultural-heritage-preservation-studies/#electives">https://bulletin.wfu.edu/undergraduate/departments-programs/cultural-heritage-preservation-studies/minor-cultural-heritage-preservation-studies/#electives</a> )		

Additional elective courses may have been approved since publication of this bulletin. The program coordinator maintains a complete list of all approved elective courses. For course descriptions, see the relevant department's listings in this bulletin.

## Cultural Resource Preservation Electives

Code	Title	Hours
CHP 200	Special Topics	1-3
ANT 305	Museum Anthropology	3
ANT 315	Artifact Analysis and Laboratory Methods in Archaeology	4
ANT 370	Origins to Empires: The Archaeology of Africa and Eurasia	3
ANT 374	North American Archaeology	3
ANT 378	Conservation Archeology	1.5
ANT 381	Field Program in Anthropological Archaeology	3
ANT 382	Field Program in Anthropological Archaeology	3
ART 203	Islamic Art and Architecture	3
ART 204	South Asian Art and Architecture	3
ART 206	Art and Empire: India and Europe, 1500-1900	3

ART 207	Building Empire: Early Modern Islamic Architecture	3
ART 208	Ottoman Art and Architecture	3
ART 244	Greek Art and Architecture	3
ART 245	Art and Architecture of the Roman World	3
ART 250	Medieval Art and Architecture	3
ART 259	The History of Photography	3
ART 396	Art History Seminar (subject to approval)	4
HST 161	History Museums	1.5
HST 266	The History of the Slave South	3
HST 267	The Making of the Modern South since the Civil War	3
HST 324	Fashion in the Eighteenth Century	3
HST 325	English Kings, Queens, and Spectacle	3
HST 370	Topics in North Carolina History	3
HST 372	Queer Public Histories	3
HST 381	Religious Utopias and the American Experience	3
MUS 134/234	Music of Asia	3

## Internships Approved for Cultural Heritage & Preservation Studies Minors

Code	Title	Hours
CHP 300	Internship	3
ANT 391	Internship in Anthropology	1-3
ART 293	Practicum	3,4
HST 395	Internship in History	1-3
MUS 279	Internship in Music	1-3

Students intending to minor in Cultural Heritage & Preservation Studies should consult the program coordinator. Equivalent courses must be approved by the program coordinator.

## East Asian Languages and Cultures (EAL)

The department offers courses of study leading to majors and minors in Chinese Language and Culture and Japanese Language and Culture respectively. Because of the number of prerequisite courses and the study abroad requirement for the majors, students are encouraged to start the major as early as possible. Requests for substitutions and exceptions to the stated curriculum should be made to the department chair. The requirements for completion of each degree program are those in effect in the bulletin year when the students declare the major or minor.

Code	Title	Hours
<b>Prerequisites</b>		
CHI 101 or JPN 101	First-year Chinese I First-year Japanese I	4
CHI 102 or JPN 102	First-year Chinese II First-year Japanese II	4
CHI 153 or JPN 153	Second-year Chinese I Second-year Japanese I	4

CHI 201 Second-year Chinese II  
or JPN 201 Second-year Japanese II

**Study abroad credit transfer.** Non-equivalent courses approved as CHI/JPN/EAL 500 will count toward the major or minor. Courses approved as CHI/JPN/EAL 520 will count as elective hours toward graduation only.

Chinese and Japanese courses at the 100-level may not be taken pass-fail. Any exception to the policy must arise from exceptional circumstances and must be approved by the Chair of the department.

## Contact Information

Department of East Asian Languages and Cultures (<http://college.wfu.edu/ealc/>)  
Carswell Hall 022, Box 7457  
Phone 336-758-4817

## Programs

### Majors

- Chinese Language and Culture, B.A.
- Japanese Language and Culture, B.A.

### Minors

- Chinese Language and Culture, Minor
- Japanese Language and Culture, Minor

## Courses

### East Asian Languages and Cultures (EAL; Taught in English)

#### EAL 219. Major Works of Japanese Literature I. (3 h)

A study of major works of Japanese literature, this course examines epic and lyric poetry, novels, drama, travelogues, and satirical pieces chosen both for their central place in the canon and for their insights into Japanese history and culture. (CD, D)

#### EAL 220. Major Works of Japanese Literature II. (3 h)

A study of major works of Japanese literature, this course examines novels, drama, modernity and modernization, and literary movements and genres chosen both for their central place in the canon and for their insights into Japanese history and culture. (CD, D)

#### EAL 221. Themes in Chinese Literature I. (3 h)

Examines selected themes in Chinese fiction, drama, and poetry with an emphasis on the modern and early modern periods. (CD, D)

#### EAL 222. Themes in Chinese Literature II. (3 h)

Examines selected themes in Chinese fiction, drama, and poetry with an emphasis on the early modern and pre-modern periods. (CD, D)

#### EAL 223. Traditional Chinese Literature. (3 h)

Surveys the history of the traditional Chinese fictional narrative across a variety of genres and forms such as the classical anecdote, folktale, vernacular story, dramas, and novel. (CD, D)

#### EAL 231. Early 20th-century Chinese Modernism. (3 h)

An interdisciplinary exploration of Chinese modernist experiments in literature, art, architecture, and graphic design in the first half of the 20th century. (CD)

#### 4 EAL 241. Gender in Japanese Literature. (3 h)

A study of the changing aesthetics and ideologies of gender and sexuality in Japanese literature with a focus on modern fiction and poetry. (CD)

#### EAL 252. Chinese Cinemas. (3 h)

Provides a thorough examination of Chinese cinemas from mainland China, Hong Kong, and Taiwan, paying special attention to films' aesthetic responses to historical catastrophe, political upheaval, and social transformation. Examining film's concerns with the narration of history raises further questions regarding national and cultural identity, popular culture and cinematic form, gender and sexuality, exile and diaspora, and revolutionary aesthetics. (CD)

#### EAL 253. Japanese Film: Themes and Methods. (3 h)

Explores themes, artistic visions, and techniques in a variety of film genres, from historical dramas to contemporary comedies and from realism to fantasy and science fiction. Special focus is given to the films' historical and political context. (CD)

#### EAL 270. Contemporary Japanese Culture. (3 h)

Selected topics in Japanese literature, pop culture, film, animation, and other forms. May be repeated for credit when topic differs. (CD)

#### EAL 271. Mass Culture in Modern China. (3 h)

Inquiry into the critical concept of mass and popular culture by looking at newspapers, visual culture, fiction, film, television, music, and the internet, and tracing their sociopolitical, aesthetic impacts on modern China. (CD)

#### EAL 272. Fiction and Film from Hong Kong, Taiwan, and Beyond. (3 h)

Exploration of the development of Chinese-language fiction and film from Hong Kong, Taiwan, Malaysia, the U.S., and more. Special attention to the specific cultural, political, historical, and aesthetic contexts of these works and their expression of Chinese identity. (CD)

#### EAL 273. Kung Fu China: Culture, Narrative, Globalization. (3 h)

Survey of Chinese martial arts narratives in fiction, film, and visual cultures from ancient origins to the present day. Explores the forces of physical combat alongside issues such as philosophy, politics, gender, technology, and globalization.

#### EAL 275. Survey of East Asian Cultures. (3 h)

Explores the cultural traditions of China, Japan and Korean in their historical, regional and global contexts. (CD)

#### EAL 279. Korean Cinema: History, Gender, and Genre. (3 h)

Examines the history of Korean film and its political, historical, and aesthetic contexts. Pays special attention to the issues of gender, memory, technology, and the globalization of contemporary Korean popular culture.

#### EAL 285. Contemporary East Asian Cinema. (3 h)

Examination of the cinematic landscape of contemporary East Asia. Focus on recent works from amateur directors, genre film, and blockbusters. (CD)

#### EAL 290. Special Topics. (3 h)

Selected themes and approaches to East Asian literature, drama, culture, and film. Specific topics decided by faculty prior to the term the course is offered. May be repeated for credit. P-POI.

#### EAL 299. Individual Study. (1-3 h)

P-POI.

#### EAL 303. Field Research Preparation. (1 h)

Development of target language (Chinese or Japanese) field research materials and preparation for field research practicum in China, Japan, or Taiwan. P-POI.



**EAL 304. Field Research Practicum. (2 h)**

Use of target language research materials in field research project in China, Japan, or Taiwan to investigate aspects of culture and belief systems and to apply specific disciplinary frameworks. Not offered at the Wake Forest campus. P-POI.

**EAL 375. Senior Research Seminar. (3 h)**

A critical, theoretical, and practical foundation for developing students' capstone research projects.

**EAL 376. Honors Thesis. (3 h)**

Directed research for the honors thesis. P-EAL 375 and POI.

## Chinese(CHI)

**CHI 101. First-year Chinese I. (4 h)**

Two-semester sequence designed to develop students' elementary Chinese communication skills in simple daily life contexts. Reading, writing, listening, and speaking are given equal weight, with emphasis on listening and speaking skills in class.

**CHI 102. First-year Chinese II. (4 h)**

Two-semester sequence designed to develop students' elementary Chinese communication skills in simple daily life contexts. Reading, writing, listening, and speaking are given equal weight, with emphasis on listening and speaking skills in class. P-CHI 101 or equivalent.

**CHI 153. Second-year Chinese I. (4 h)**

Two-semester sequence designed to develop students' Chinese communication skills in a wide range of daily life contexts, including some work scenarios. Students will gain a basic appreciation of cultural differences. P - CHI 102 or equivalent.

**CHI 201. Second-year Chinese II. (4 h)**

Two-semester sequence designed to develop students' Chinese communication skills in a wide range of daily life contexts, including some work scenarios. Students will gain a basic appreciation of cultural differences. P - CHI 153 or equivalent.

**CHI 220. Third-year Chinese I. (4 h)**

Two-semester sequence designed to enhance students' Chinese communication skills, with emphasis on accuracy and fluency on various topics at more abstract levels. Students will deepen their understanding of cultural differences. P - CHI 201.

**CHI 230. Third-year Chinese II. (4 h)**

Two-semester sequence designed to enhance students' Chinese communication skills, with emphasis on accuracy and fluency on various topics at more abstract levels. Students will deepen their understanding of cultural differences. P - CHI 220 or POI.

**CHI 231. Fourth-year Chinese. (3 h)**

Continuation of CHI 230, with emphasis on comprehending and producing more complex and sophisticated Chinese. Students will develop an advanced understanding of cultural differences. P - CHI 230 or POI.

**CHI 255. Business Chinese. (3 h)**

Communicating in Mandarin Chinese for business purposes. This course will prepare students to start a job search and build partnerships in Chinese-speaking areas, with emphasis on developing advanced intercultural communicative capability. P-CHI 230 or POI.

**CHI 291. Special Topics in Chinese. (3 h)**

Develops students' confidence and skills in handling topical issues in Chinese society and culture using authentic materials. Designed for students who have completed CHI 231 at Wake Forest and/or through study abroad. P-CHI 231 or POI.

**CHI 296. Chinese across the Curriculum. (1 h)**

Coursework in Chinese completed as an adjunct to specially-designated courses throughout the college curriculum. P-POI.

**CHI 299. Individual Study. (1-3 h)**

P-POI.

**CHI 351. Classical Chinese. (3 h)**

Vocabulary and syntax of the written Chinese language prior to the 20th century, including readings from the 4th century BC authors such as Mencius, along with writings from later centuries. P-POI.

## Japanese (JPN)

**JPN 101. First-year Japanese I. (4 h)**

Two-semester sequence designed to help students develop their ability to communicate in Japanese at the elementary level. Focuses on developing proficiency in listening, speaking, reading, and writing.

**JPN 102. First-year Japanese II. (4 h)**

Two-semester sequence designed to help students develop their ability to communicate in Japanese at the elementary level. Focuses on developing proficiency in listening, speaking, reading, and writing. P-JPN 101 or equivalent.

**JPN 153. Second-year Japanese I. (4 h)**

Two-semester sequence at the intermediate level. Continues to focus on developing proficiency in listening, speaking, reading, and writing. Expands students' ability to communicate with a broader range of vocabulary and grammar. P-JPN 102 or equivalent.

**JPN 201. Second-year Japanese II. (4 h)**

Two-semester sequence at the intermediate level. Continues to focus on developing proficiency in listening, speaking, reading, and writing. Expands students' ability to communicate with a broader range of vocabulary and grammar. P-JPN 153 or equivalent.

**JPN 220. Third-year Japanese I. (4 h)**

Two-semester sequence at the advanced level. Integrates conversation, discussion, presentation, reading, and writing skills with emphasis on written and audiovisual sources. P-JPN 201 or POI.

**JPN 230. Third-year Japanese II. (4 h)**

Two-semester sequence at the advanced level. Integrates conversation, discussion, presentation, reading, and writing skills with emphasis on written and audiovisual sources. P-JPN 220 or equivalent.

**JPN 231. Fourth-year Japanese. (3 h)**

Advanced readings, discussion, presentations, and writing practice on topics in Japanese culture and society, using authentic stories, poetry, films, songs, websites, and other multimedia sources. P-JPN 230 or equivalent.

**JPN 250. Introduction to Literature Written in Japanese. (1-3 h)**

Develops students' productive skills at the discursive and rhetorical levels using authentic materials. Designed for students who have completed the cycle of Japanese courses at Wake Forest and/or through study abroad. P-JPN 231 or POI.

**JPN 290. Japanese Abroad. (3 h)**

Coursework in Japanese taken abroad. Not offered at the Wake Forest campus. May be repeated for credit with POI.

**JPN 291. Special Topics in Japanese. (3 h)**

Develops students' confidence and skills in handling topical issues in Japanese society and culture using authentic materials. P-JPN 230 or POI.

**JPN 296. Japanese across the Curriculum. (1 h)**

Coursework in Japanese done as an adjunct to specially-designated courses throughout the college curriculum. P-POI.

**JPN 299. Individual Study. (1-3 h)**

P-POI.

## Faculty

**Chair** Stew Carter

**Associate Professor** Andrew Rodekohr, Yaohua Shi

**Assistant Professors** Mari Ishida, Qiaona Yu

**Professor of the Practice** Yasuko T. Rallings

**Assistant Teaching Professor** Kanako Yao

**Visiting Assistant Professor** Yuyun Lei

## Chinese Language and Culture, B.A. Requirements

Requires 29 hours including four advanced language courses beyond CHI 201. Study abroad in China or Taiwan is also required.\*

Code	Title	Hours
<b>Required Major Courses</b>		
CHI 220	Third-year Chinese I	4
CHI 230	Third-year Chinese II	4
CHI 231	Fourth-year Chinese	3
CHI 255	Business Chinese	3
or CHI 291	Special Topics in Chinese	
EAL 375	Senior Research Seminar	3
Select one elective in Chinese history, religion, or politics:		3
HST 244	Pre-Modern China to 1850	
HST 245	Modern China since 1850	
HST 344	Early Modernity in China	
HST 352	Ten Years of Madness: The Chinese Cultural Revolution, 1966 to 1976	
REL 382	Religion and Culture in China	
POL 248	Chinese Politics	
Select two electives in Chinese literature, film and/or culture:		6
EAL 221	Themes in Chinese Literature I	
EAL 222	Themes in Chinese Literature II	
EAL 223	Traditional Chinese Literature	
EAL 231	Early 20th-century Chinese Modernism	
EAL 252	Chinese Cinemas	
EAL 271	Mass Culture in Modern China	
EAL 272	Fiction and Film from Hong Kong, Taiwan, and Beyond	
EAL 273	Kung Fu China: Culture, Narrative, Globalization	
Select one elective in East Asian/Korean/Japanese literature, film, or culture:		3
EAL 219	Major Works of Japanese Literature I	
EAL 220	Major Works of Japanese Literature II	
EAL 241	Gender in Japanese Literature	
EAL 253	Japanese Film: Themes and Methods	
EAL 270	Contemporary Japanese Culture	
EAL 275	Survey of East Asian Cultures	

EAL 279	Korean Cinema: History, Gender, and Genre
EAL 285	Contemporary East Asian Cinema
WGS 363	Gender and Sexuality in Contemporary Korea

\* Under special circumstances, a student may substitute an approved intensive immersion program in the U.S. for the study abroad requirement.

A minimum C average is required for all courses in the major.

## Honors

To graduate with the designation "Honors in Chinese Language and Culture," following completion of EAL 375, the student must enroll in EAL 376, submit an honors-quality research paper, successfully defend the paper in an oral examination, and earn an overall GPA of 3.0 with an average of 3.3 on work in courses taken as part of the major in Chinese. For additional information, students should consult their Chinese Language and Culture major advisor or the EAL 375 instructor.

## Japanese Language and Culture, B.A. Requirements

Requires 29 hours, including three advanced language courses beyond JPN 201.\* Study abroad in Japan is also required.\*\*

Code	Title	Hours
<b>Required Major Courses</b>		
JPN 220	Third-year Japanese I	4
JPN 230	Third-year Japanese II	4
JPN 231	Fourth-year Japanese *	3
or JPN 291	Special Topics in Japanese	
EAL 375	Senior Research Seminar	3
Select three electives in Japanese literature, film and/or culture: *		9
EAL 219	Major Works of Japanese Literature I	
EAL 220	Major Works of Japanese Literature II	
EAL 241	Gender in Japanese Literature	
EAL 253	Japanese Film: Themes and Methods	
EAL 270	Contemporary Japanese Culture	
Select one of the following Japanese history and/or religion courses:		3
HST 246	Japan before 1600	
HST 247	Japan since 1600	
HST 347	The Rise of Asian Economic Power since WWII	
HST 348	Samurai and Geisha: Fact, Film, and Fiction	
REL 363	The Religions of Japan	
REL 381	Zen Buddhism	
Select one course in East Asian/Korean/Chinese literature, film, or culture:		3
EAL 221	Themes in Chinese Literature I	
EAL 222	Themes in Chinese Literature II	
EAL 223	Traditional Chinese Literature	
EAL 231	Early 20th-century Chinese Modernism	
EAL 252	Chinese Cinemas	

EAL 271	Mass Culture in Modern China
EAL 272	Fiction and Film from Hong Kong, Taiwan, and Beyond
EAL 273	Kung Fu China: Culture, Narrative, Globalization
EAL 275	Survey of East Asian Cultures
EAL 279	Korean Cinema: History, Gender, and Genre
EAL 285	Contemporary East Asian Cinema
WGS 363	Gender and Sexuality in Contemporary Korea

\* Students may take up to fourteen hours of Japanese language courses, three hours of which (either JPN 231 or JPN 291) may substitute as a Japanese Literature, film, and culture elective.

\*\* *Under special circumstances, a student may substitute an approved intensive immersion program in the U.S. for the study abroad requirement.*

A minimum C average is required for all courses in the major.

## Honors

To graduate with the distinction "Honors in Japanese Language and Culture," following the completion of EAL 375 the student must enroll in EAL 376, submit an honors-quality research paper, successfully defend the paper in an oral examination, and earn an overall GPA of 3.0 with an average of 3.3 on work in courses taken as part of the major in Japanese. For additional information, student should consult their Japanese Language and Culture major advisor or the EAL 375 instructor.

## Chinese Language and Culture, Minor Requirements

Requires fourteen hours, including two advanced language courses beyond CHI 201.

Code	Title	Hours
CHI 220	Third-year Chinese I	4
CHI 230	Third-year Chinese II	4
Select two electives in Chinese literature, film and/or culture of China:		6
EAL 221	Themes in Chinese Literature I	
EAL 222	Themes in Chinese Literature II	
EAL 223	Traditional Chinese Literature	
EAL 231	Early 20th-century Chinese Modernism	
EAL 252	Chinese Cinemas	
EAL 271	Mass Culture in Modern China	
EAL 272	Fiction and Film from Hong Kong, Taiwan, and Beyond	
EAL 273	Kung Fu China: Culture, Narrative, Globalization	
Study abroad is highly recommended but not required		

A minimum C average is required for all courses in the minor.

## Japanese Language and Culture, Minor

### Requirements

Requires fourteen hours, including eight hours of advanced study in the language beyond JPN 201.

Code	Title	Hours
JPN 220	Third-year Japanese I	4
JPN 230	Third-year Japanese II	4
Select two electives in literature, film and/or culture of Japan:		6
EAL 219	Major Works of Japanese Literature I	
EAL 220	Major Works of Japanese Literature II	
EAL 241	Gender in Japanese Literature	
EAL 253	Japanese Film: Themes and Methods	
EAL 270	Contemporary Japanese Culture	
EAL 285	Contemporary East Asian Cinema	
Study abroad is highly recommended but not required		

A minimum C average is required for all courses in the minor.

## East Asian Studies (EAS)

Interdisciplinary Minor

The East Asian Studies Minor provides an opportunity for students to undertake interdisciplinary study of the art, film, history, literature, music, philosophy, politics, religion, and culture of East Asia, including connections with Northeast, Central and Southeast Asia.

### Contact Information

East Asian Studies (<http://college.wfu.edu/eas/>)

### Programs Minor

- East Asian Studies, Minor

### Courses

#### EAS 311. Special Topics in East Asian Studies. (1-3 h)

An intensive survey of one or more important issues in East Asian studies not included in the regular course offerings. P-POI.

#### EAS 381. Independent Research in East Asian Studies. (1-3 h)

Supervised independent research project on a topic related to East Asia. May be repeated for credit. P-Permission of both instructor and coordinator of East Asian Studies.

### Faculty

**Coordinator, Associate Professor of History** Robert I. Hellyer

#### List of Affiliated Faculty

Wei-chin Lee, Professor, Politics and International Affairs

Jay Ford, Professor, Study of Religions

Stewart Carter, Professor, Music

Yaohua Shi, Associate Professor, East Asian Languages and Cultures

Qiong Zhang, Associate Professor, History

Andy Rodekohr, Associate Professor, East Asian Languages and Cultures

Mari Ishida, Assistant Professor, East Asian Languages and Cultures  
 Jieun Lee, Assistant Professor, Women's Gender and Sexuality Studies  
 Elizabeth Clendinning, Associate Professor, Music  
 Lina Benabdallah, Assistant Professor, Politics and International Affairs

## East Asian Studies, Minor

### Requirements

The minor consists of a total of 15 hours.

Code	Title	Hours
Select at least one course from three of the four following curriculum groupings:		
	Literature & Humanities Electives ( <a href="https://bulletin.wfu.edu/courses-instruction/east-asian-studies/minor-east-asian-studies/#literature">https://bulletin.wfu.edu/courses-instruction/east-asian-studies/minor-east-asian-studies/#literature</a> )	
	Art, Music, Philosophy, and Study of Religions Electives ( <a href="https://bulletin.wfu.edu/courses-instruction/east-asian-studies/minor-east-asian-studies/#art">https://bulletin.wfu.edu/courses-instruction/east-asian-studies/minor-east-asian-studies/#art</a> )	
	Social Sciences Electives ( <a href="https://bulletin.wfu.edu/courses-instruction/east-asian-studies/minor-east-asian-studies/#socialsciences">https://bulletin.wfu.edu/courses-instruction/east-asian-studies/minor-east-asian-studies/#socialsciences</a> )	
	History Electives ( <a href="https://bulletin.wfu.edu/courses-instruction/east-asian-studies/minor-east-asian-studies/#history">https://bulletin.wfu.edu/courses-instruction/east-asian-studies/minor-east-asian-studies/#history</a> )	

Nine or more of the hours towards the minor must focus on a geographical area—Japan, China, or Korea.

Appropriate credit in various fields of East Asian Studies also may be obtained by study abroad in programs approved by the coordinator. Interested students are encouraged, preferably in their sophomore year, to consult with the coordinator or an affiliated adviser to discuss their interests and structure a coherent course of study.

Courses may be chosen from among the list of approved courses. Additional elective courses may have been approved since publication of this bulletin. The program coordinator maintains a complete list of all approved elective courses. For course descriptions, see the relevant department's listings in this bulletin.

### East Asian Studies Electives Group One: Literature & Humanities

Code	Title	Hours
EAL 219	Major Works of Japanese Literature I	3
EAL 220	Major Works of Japanese Literature II	3
EAL 221	Themes in Chinese Literature I	3
EAL 222	Themes in Chinese Literature II	3
EAL 223	Traditional Chinese Literature	3
EAL 231	Early 20th-century Chinese Modernism	3
EAL 241	Gender in Japanese Literature	3
EAL 252	Chinese Cinemas	3
EAL 253	Japanese Film: Themes and Methods	3
EAL 270	Contemporary Japanese Culture	3
EAL 271	Mass Culture in Modern China	3
EAL 272	Fiction and Film from Hong Kong, Taiwan, and Beyond	3

EAL 273	Kung Fu China: Culture, Narrative, Globalization	3
EAL 275	Survey of East Asian Cultures	3
EAL 279	Korean Cinema: History, Gender, and Genre	3
EAL 285	Contemporary East Asian Cinema	3
ENG 345	Studies in Fiction (when the topic is related to Asian-Americans)	3
HMN 219	Introduction to Japanese Literature	3

### East Asian Studies Electives Group Two: Art, Music, Philosophy, and Study of Religions

Code	Title	Hours
ART 104	Topics in World Art (when focus is East Asia)	3
MUS 134/234	Music of Asia	3
PHI 235	Main Streams of Chinese Philosophy	3
REL 104C	Introduction to East Asian Religions	3
REL 109	Introduction to Buddhist Traditions	3
REL 329	Chinese Medicine	3
REL 349	Asian Meditation Practices	3
REL 361	Topics in Buddhism	3
REL 363	The Religions of Japan	3
REL 381	Zen Buddhism	3
REL 382	Religion and Culture in China	3
REL 391	Topics in East Asian Religions	3

### East Asian Studies Electives Group Three: Social Sciences

Code	Title	Hours
COM 351A	Comparative Communication: Japan	1.5,3
COM 351E	Comparative Communication: China	1.5,3
INS 349	Japanese and American Culture: Cross-Cultural Communication	3
POL 242	Topics in Comparative Politics (when topic is China-Africa Encounters)	3
POL 248	Chinese Politics	3
POL 260	United States and East Asia	3

### East Asian Studies Electives Group Four: History

Code	Title	Hours
HST 109	Asia and the World	3
HST 244	Pre-Modern China to 1850	3
HST 245	Modern China since 1850	3
HST 246	Japan before 1600	3
HST 247	Japan since 1600	3
HST 249	Intro to East Asia	3
HST 343	The Silk Roads	3
HST 344	Early Modernity in China	3
HST 347	The Rise of Asian Economic Power since WWII	3

HST 348	Samurai and Geisha: Fact, Film, and Fiction	3
HST 352	Ten Years of Madness: The Chinese Cultural Revolution, 1966 to 1976	3

## Economics (ECN)

The objectives of the economics program are to help prepare students for effective participation in the decision-making processes of society, to develop analytical skills in solving economic problems, to promote a better understanding of alternative economic systems, and to provide a balanced curriculum to prepare students for graduate study or positions in industry and government. Any (3h) economics course satisfies a divisional requirement.

## Contact Information

Department of Economics (<http://college.wfu.edu/economics/>)  
Kirby Hall 225, Box 7505  
Phone 336-758-5334

## Programs Majors

- Economics, B.A.
- Mathematical Economics, B.S.

## Minor

- Economics, Minor

## Courses Economics (ECN)

### ECN 150. Introduction to Economics. (3 h)

A survey of micro and macroeconomic principles. Introduction to basic concepts, characteristic data and trends, and some analytic techniques. (D)

### ECN 205. Intermediate Microeconomics I. (3 h)

Development of demand and supply analysis, neoclassical theory of household and firm behavior, and alternative market structures. P-ECN 150 and MST 111 or 112. (D)

### ECN 207. Intermediate Macroeconomics. (3 h)

Development of macroeconomic concepts of national income, circular flow, income determination, causes of unemployment, IS-LM analysis, inflation, and growth models. Emphasizes contributions of Keynes and the Keynesian tradition. P-ECN 150 and MST 111 or 112. (D)

### ECN 209. Applied Econometrics. (3 h)

An introduction to regression analysis methods used to estimate and test relationships among economic variables. Selected applications from microeconomics and macroeconomics are studied. Emphasis is on examining economic data, identifying when particular methods are appropriate and interpreting statistical results. P-ECN 150 and STA 111, (or similar course, including ANT 380; BIO 380; BEM 201; HES 262; SOC 271, or STA 311). (D, QR)

### ECN 210. Intermediate Mathematical Microeconomics. (3 h)

Mathematically intensive approach to demand and supply analysis, neoclassical theory of household and firm behavior, and alternative market structures. P - ECN 150 and MST 112. (D)

### ECN 211. Intermediate Mathematical Macroeconomics. (3 h)

Mathematically intensive approach to macroeconomic analysis of national income, unemployment, inflation, and growth. P - ECN 150 and MST 112. (D)

### ECN 215. Econometric Theory and Methods. (3 h)

Estimation and inference in relation to quantitative economic models. Methods covered include Ordinary Least Squares, Generalized Least Squares and Maximum Likelihood. P-ECN 150, STA 111 or MST 357/STA 310, MST 113 and MST 121. (D, QR)

### ECN 240. Economics of Health and Medicine. (3 h)

Applications of the methods of economic analysis to the study of the health care industry. P-ECN 150 and an applied statistics course such as ANT 380, BIO 380, BEM 201, HES 262, PSY 311, SOC 271 or STA 111, or POI. (D)

### ECN 241. Environmental and Natural Resource Economics. (3 h)

Develops the economic theory of natural resource markets and explores public policy issues in natural resources and the environment. P-ECN 150 (D)

### ECN 243. Economics of Global Health. (3 h)

Applications of economic analysis to study health issues in low and middle-income countries. P-ECN 150 and an applied statistics class such as: ANT 380, BIO 380, BEM 201, HES 262, STA 111 (previously MST 109), PSY 311, or SOC 371, or POI. (D)

### ECN 261. American Economic Development. (3 h)

The application of economic theory to historical problems and issues in the American economy. P-ECN 150. (D)

### ECN 270. Current Economic Issues. (3 h)

Examines current economic issues using economic theory and empirical evidence. Topics may include recent macroeconomic trends, the distribution of income, minimum wages, immigration, Social Security, war, climate change, trade, regulation and deregulation, antitrust policy, health care, labor unions, tax reform, educational reform, and others. P-ECN 150. (D)

### ECN 271. Selected Areas in Economics. (1-3 h)

A survey of an important area in economics not included in the regular course offerings. The economics of housing, education or technology are examples. Students should consult the instructor to ascertain topic before enrolling. P-ECN 150. (D)

### ECN 280. Economics Internship. (1 h)

Receive course credit in the form of an internship class in order to satisfy Curricular Practical Training (CPT) to be approved, supervised, and evaluated by an appropriate faculty advisor. International students must also meet a set of eligibility criteria for CPT. One hour of credit from Washington DC Internship (WDC 100) or Wake West Internship may be approved for ECN 280. Does not count towards the Economics B.A., the Mathematical Economics B.S., or the Economics Minor. Pass/Fail only. P-POI.

### ECN 291. College Fed Challenge I. (1.5 h)

Spring semester preparation course for the annual College Fed Challenge competition. The course will focus on understanding current macroeconomic events and theoretical economic models through the lens of monetary policy. P-POI.

### ECN 292. College Fed Challenge II. (1.5 h)

Preparation for the annual fall College Fed Challenge competition. The course will focus on preparing a presentation on current economic conditions and a monetary policy recommendation for the competition. P-POI.



**ECN 306. Intermediate Microeconomics II. (3 h)**

More advanced theory of maximizing behavior of economic agents with discussion of risk, uncertainty, and economic dynamics. Theory employed in assessment of policy issues. P-ECN 205 or 210. (D)

**ECN 316. Game Theory. (3 h)**

An introduction to mathematical models of social and strategic interactions. P-ECN 205 or 210 and STA 111. (D)

**ECN 317. Market Design. (3 h)**

Theoretical analysis of the design of rules and algorithms to allocate scarce resources. Topics include matching markets, such as those for school choice, entry-level labor markets, and kidney exchanges; auctions with applications to the sale of natural resources, financial assets, and advertising; and online platforms. P-ECN 205 or 210. (D)

**ECN 318. Advanced Topics in Mathematical Economics. (3 h)**

Advanced mathematical techniques such as dynamic programming or lattice theory, and the applications of these techniques to optimization and equilibrium problems in various fields of economics such as growth theory, search theory, and auction theory. P-ECN 210, 211 and MST 112. (D)

**ECN 319. Behavioral Economics. (3 h)**

This course analyzes ways of decision-making that deviate from the standard economic understanding of rational decision-making. The main focus is on behaviors that fall under the umbrella of prospect theory. P-ECN 205 or 210. (D)

**ECN 322. Monetary Theory and Policy. (3 h)**

An investigation of the nature of money, the macroeconomic significance of money, financial markets, and monetary policy. P-ECN 207 or 211. (D)

**ECN 323. Financial Markets. (3 h)**

A study of the functions, structure, and performance of financial markets. P-ECN 205 or 210 and ECN 207 or 211. (D)

**ECN 324. Law and Economics. (3 h)**

An economic analysis of property, contracts, torts, criminal behavior, due process, and law enforcement. P-ECN 205 or 210. (D)

**ECN 326. Theory of Social Choice. (3 h)**

Development of Constitutional Economics in establishing rules for governmental and group decision-making by democratic means. Implications for various voting rules are considered in terms of both positive and normative criteria. P-ECN 205 or 210. (D)

**ECN 333. Economics in Sports. (3 h)**

Study of the design of sporting contests with particular attention paid to league governance decisions, measuring competitor productivity, and strategies used by competitors. P-ECN 205 or 210. (D)

**ECN 335. Economics of Labor Markets. (3 h)**

A theoretical and empirical survey of labor markets. Topics include: the demand and supply of labor, compensating wage differentials, education and training, discrimination, unions, public sector employment, earnings inequality, and unemployment. P-ECN 205 or 210. (D)

**ECN 351. International Trade. (3 h)**

Development of the theory of international trade patterns and prices and the effects of trade restrictions such as tariffs and quotas. P-ECN 205 or 210. (D)

**ECN 352. International Finance. (3 h)**

The study of the open macroeconomy, with a particular focus on the foreign exchange market and the history of the international monetary system. P-ECN 205 or 210 and ECN 207 or 211. (D)

**ECN 358. Economic Growth and Development. (3 h)**

A study of the problems of economic growth, with particular attention to the less developed countries of the world. P-ECN 205 or 210 or POI. (D)

**ECN 362. History of Economic Thought. (3 h)**

Historical survey of the main developments in economic thought from the Biblical period to the 20th century. P-ECN 205 or 210 and ECN 207 or 211. (D)

**ECN 365. Economic Philosophers. (3 h)**

An in-depth study of the doctrines and influence of up to three major figures in economics, such as Smith, Marx, and Keynes. P-ECN 205 or 210 and ECN 207 or 211. (D)

**ECN 372. Selected Areas in Economics. (1-3 h)**

Survey of an important area in economics not included in the regular course offerings. The economics of housing, education or technology are examples. Students should consult the instructor to ascertain topic before enrolling. P-ECN 205 or 210. (D)

**ECN 373. Selected Areas in Economics. (1-3 h)**

Survey of an important area in economics not included in the regular course offerings. The economics of housing, education or technology are examples. Students should consult the instructor to ascertain topic before enrolling. P-ECN 207 or 211. (D)

**ECN 374. Topics in Macroeconomics. (3 h)**

Considers significant issues and debates in macroeconomic theory and policy. Examples might include a New Classical-New Keynesian debate, currency crises, conversion of federal deficit to surplus, competing models of economic growth, alternative monetary and fiscal policy targets. P-ECN 207 or 211. (D)

**ECN 375. Macroeconomic Models. (3 h)**

Development of formal macroeconomic models of both Keynesian and classical types. Involves exploration of comparative statics, dynamic analysis and policy assessment. P-ECN 207 or 211. C-MST 113 and 121. (D)

**ECN 376. Quantitative Asset Pricing. (3 h)**

This class studies the theoretical and applied pricing of options. Topics include basic definitions and payoffs of options, the binomial asset pricing model, the Black-Scholes pricing model, and Monte Carlo simulations. Students will also study the ways in which options can provide a hedge against uncertainty. P-ECN 207 or 211 and MST 121.

**ECN 390. Individual Study. (1.5, 3 h)**

Directed readings in a specialized area of economics. P-POI.

**ECN 391. Public Finance. (3 h)**

An examination of the economic behavior of government. Includes reasons for and against government action, the appropriate response of governments in cases of market failures, and how private agents will respond to those government actions. P-ECN 209 or 215; and ECN 205 or 210. (D)

**ECN 392. Public Choice. (3 h)**

Traditional tools of economic analysis are employed to explore such topics in political science as political organization, elections, coalition formation, the optimal provision of public goods, and the scope of government. P-ECN 209 or 215; and ECN 205 or 210. (D)

**ECN 393. Economics of Industry. (3 h)**

Analysis of the link between market structure and market performance in United States industries from theoretical and empirical viewpoints. Examines the efficiency of mergers, cartels, and other firm behaviors. Case studies may include automobiles, steel, agriculture, computers, sports, and telecommunications. P-ECN 209 or 215; and ECN 205 or 210. (D)

**ECN 394. Economics of Higher Education. (3 h)**

Applies economic theory and data analysis in an investigation of important current issues in higher education. Issues of prestige, admissions, financial aid, access, student and faculty quality, alumni giving and endowments, and externalities will be addressed. P-ECN 209 or 215; and ECN 205 or 210. (D)

**ECN 395. Prediction Markets. (3 h)**

Prediction markets help make forecasts about upcoming events, and are used by large companies to manage risk. This course provides background on what these markets are, the theoretical reasons why they might work, and studies real world applications such as election forecasting. Students will participate and trade in a live prediction market throughout the semester. P-ECN 205 or 210; and ECN 209 or 215. (D)

**ECN 398. Preparing for Economic Research. (1.5 h)**

Designed to assist students in selecting a research topic and beginning a research project on the selected topic. P-ECN 209 or 215 and POI.

**ECN 399. Research. (1.5 h)**

Completion of a senior research project. Required of candidates for departmental honors. P-ECN 398 and POD.

**Faculty**

**Chair**

**Reynolds Professor** John H. Wood

**Professor and Burchfield Presidential Chair of Political Economy**

Koleman Strumpf

**Professors** Frederick H. Chen, Allin F. Cottrell, Jac C. Heckelman, Sandeep Mazumder, Robert M. Whaples

**Associate Professors** E. Mark Curtis, Christina M. Dalton, John T. Dalton, Francis X. Flanagan, Amanda Griffith, Tin Cheuk (Tommy) Leung

**Assistant Professors** Aeimit Lakdawala, Leah K. Lakdawala, Jane M. Ryngaert, Margaret Triyana, Chu (Alex) Yu

**Associate Teaching Professor** John MacDonald

**Assistant Teaching Professor** Todd McFall

**Visiting Associate Professor** Megan Regan

**Economics, B.A.**

**Requirements**

Prior to declaring the major, students must have minimum grade C or AP credit in ECN 150. The major in economics consists of 30 hours in economics\* including:

Code	Title	Hours
<b>Required Major Courses</b>		
ECN 150	Introduction to Economics **	3
ECN 205	Intermediate Microeconomics I ***	3
or ECN 210	Intermediate Mathematical Microeconomics	
ECN 207	Intermediate Macroeconomics ***	3
or ECN 211	Intermediate Mathematical Macroeconomics	
ECN 209	Applied Econometrics ***	3
Electives must include at least three 300-level courses		9

**Co-Requirements**

The student must make a minimum grade of C- in the following:		
MST 111	Calculus with Analytic Geometry I	4
STA 111	Elementary Probability and Statistics ****	4

\* Co-requisite hours are not counted towards these 30 hours in economics.

\*\* Students must receive a grade of C or higher in ECN 150 to enroll in ECN 205 or ECN 210, ECN 207 or ECN 211 and/or ECN 209.

\*\*\* A minimum grade of C- is required in ECN 205 or ECN 210, ECN 207 or ECN 211, and ECN 209. Additionally, only one of ECN 205 or ECN 210, and one of ECN 207 or ECN 211 can be counted towards the major.

\*\*\*\* Or similar course, including ANT 380, BIO 380, BEM 201, HES 262, SOC 271, or STA 311.

In addition, students must achieve an overall 2.0 average in economics courses.

Economics majors are encouraged to take complementary courses in mathematics, the humanities, or other social sciences to sharpen their analytical skills and to acquire a broader understanding of important issues. The faculty adviser will assist each student in determining the particular combination of courses that satisfies his or her needs.

**Honors**

Students who have a GPA of at least 3.0 overall and 3.3 in economics, and who complete the research course, ECN 399, will be considered by the department faculty for the graduation distinction “Honors in Economics.”

**Mathematical Economics, B.S.**

**Requirements**

The Department of Economics and the Department of Mathematics and Statistics offer a joint major leading to a bachelor of science degree in mathematical economics. This interdisciplinary program offers the student an opportunity to apply mathematical methods to the development of economic theory, models, and quantitative analysis. The major has the following course requirements:

Code	Title	Hours
<b>Required Major Courses</b>		
MST 112	Calculus with Analytic Geometry II	4
MST 113	Multivariable Calculus	4
MST 121	Linear Algebra I	3
MST 254	Optimization Theory	3
ECN 150	Introduction to Economics	3
ECN 210	Intermediate Mathematical Microeconomics	3
ECN 211	Intermediate Mathematical Macroeconomics	3
ECN 215	Econometric Theory and Methods	3
ECN 318	Advanced Topics in Mathematical Economics	3
Select one of the following:		3
MST 354	Discrete Dynamical Systems	
ECN 316	Game Theory	

ECN 317	Market Design	
Select one of the following:		3
ECN 322	Monetary Theory and Policy	
ECN 323	Financial Markets	
ECN 352	International Finance	
ECN 374	Topics in Macroeconomics	
ECN 375	Macroeconomic Models	
Two additional (3h) courses chosen with the approval of the program advisers		6

Students selecting the joint major must receive permission from both the Department of Mathematics and Statistics and the Department of Economics. Prior to declaring the major, students must have a minimum grade of B- or AP credit in ECN 150 and MST 112 or else have permission from both the Department of Economics and Department of Mathematics and Statistics. Graduation requirements include a grade of at least a C- in MST 113, MST 121, ECN 210 and ECN 211.

## Honors

Students who have a GPA of at least 3.0 overall and 3.3 in courses for the mathematical economics major and who complete the research course, ECN 399 or MST 391 and MST 392 with a minimum grade of B- will be considered by the faculty for the graduation distinction, "Honors in Mathematical Economics."

## Economics, Minor Requirements

Prior to declaring the minor, students must have minimum grade C or AP credit in ECN 150. Consists of 18 hours, including:

Code	Title	Hours
ECN 150	Introduction to Economics	3
ECN 205	Intermediate Microeconomics I *	3
or ECN 210	Intermediate Mathematical Microeconomics	
ECN 207	Intermediate Macroeconomics *	3
or ECN 211	Intermediate Mathematical Macroeconomics	

\* Only one of ECN 205 or ECN 210, and one of ECN 207 or ECN 211 can be counted towards the minor.

The mathematics and minimum grade requirements for the minor are the same as for the major.

## Education (EDU)

Wake Forest University's Department of Education seeks to prepare future teachers, school leaders, and educational policy makers while informing students across disciplines for caring and effective service in classroom, school, community, nonprofit, and public policy positions. The Department of Education offers a major in Elementary Education and minors in Secondary Education and Schools, Education, and Society. The Department of Education also houses the university's College-to-Career Course Series, which provides students with an opportunity to explore personal attributes that influence future academic and professional decisions and to consider the factors that create a meaningful, fulfilling life after Wake Forest.

Wake Forest University believes that the teaching profession is important to society and that its welfare is significantly affected by the quality of educational leadership. One of the important objectives of the University has been and continues to be the preparation of teachers. The University's commitment to quality in teacher education is demonstrated by selective admission to the program, a wide range of professional courses, and closely supervised internships appropriate to the professional development of students. Wake Forest's teacher education program is proud to meet rigorous state and national standards for educator preparation, is fully accredited by the North Carolina Department of Public Instruction (NCDPI), and is a member in good standing of the Association for Advancing Quality in Educator Preparation.

Prospective elementary teachers earn a major in education. Prospective secondary teachers of English, mathematics, biology, chemistry, and physics major in that discipline and minor in education. Prospective secondary social studies teachers major in a social studies-related discipline (such as history, political science, economics, sociology, or anthropology), complete content requirements, and minor in education. In addition to the professional program, the department provides elective courses open to all students.

## Teacher Licensure

The state of North Carolina issues the Initial Class A Teacher's License to graduates who have completed an approved program including the specified courses in their teaching fields and the prescribed courses in education, who meet licensure requirements, and who receive recommendations from the designated officials in their teaching areas and from the licensure officer.

## Teacher Education Admission Requirements

Admission involves filing an official application with the department's licensure officer, being interviewed, and being officially approved by the department. In addition, the state of North Carolina requires Teacher Education Program applicants to submit qualifying SAT, ACT, or Praxis core scores before being formally admitted.

All students are required to have a 2.7 or better GPA before being formally accepted to the Teacher Education Program. Formal acceptance into the program should take place by April 1 of the junior year for secondary students and by January 1 of the junior year for elementary students.

## Teacher Education Program Area Goals

The goals and objectives for each licensure area are available on the department website (<https://education.wfu.edu/>).

## Teacher Education Course Requirements

The approved program of teacher education requires candidates to complete successfully a series of professional education courses. The exact sequence of professional and academic courses varies with a student's particular program and is determined by the adviser in conference with the candidate.

## Student Teaching

Prerequisites for registering for student teaching include:

1. senior, graduate, or special student classification
2. completion of prerequisite courses
3. formal admission to the Teacher Education Program

Students are assigned to student-teaching opportunities by public school officials on the basis of available positions and the professional needs of the student and the public school system. One semester of the senior year is reserved for the student-teaching experience. Students may not take courses outside the education department during this semester without the approval of the department chair.

## College to Career Courses

EDU 120, EDU 220, EDU 320, EDU 360, and EDU 370 compose the five-course "College-to-Career" strand of courses.

Code	Title	Hours
EDU 120	Personal Framework for Career Exploration (recommended for first-year students in their second semester and sophomores)	1.5
EDU 220	Options in the World of Work (recommended for first-year students in their second semester and sophomores)	1.5
EDU 320	Strategic Job Search Processes (recommended for juniors and seniors)	1.5
EDU 360	Professional and Life Skills (open only to seniors)	1.5
EDU 370	Professional Experience in the Engaged Liberal Arts	3
EDU 299	Career Planning *	1.5

\* EDU 299 is a survey course containing elements of EDU 120, EDU 220, and EDU 320. It is reserved for juniors and seniors who have not had an opportunity to take the recommended four-course strand.

## Contact Information

Department of Education (<https://education.wfu.edu/>)  
 Tribble Hall B201, Box 7266  
 Phone 336-758-5341

## Programs

### Major

- Elementary Education, B.A.

### Minors

- Schools, Education, and Society, Minor
- Secondary Education, Minor

## Courses

### Education (EDU)

#### EDU 101. Issues and Trends in Education. (3 h)

Educational issues and trends with a focus on K-12 schools and teachers. Focus will vary by instructor. (D)

#### EDU 103A. Preparing for Community Engagement. (1.5 h)

Prepares students to extend their education beyond the classroom setting. Includes a focus on community-engaged service, mentoring, tutoring, teaching, and learning. Pass/Fail only.

#### EDU 103B. Participating in Community Engagement. (1.5 h)

Allows students to learn more about and participate in community-engaged service as part of a tutoring/mentoring practicum experience. Pass/Fail only. P-POI.

#### EDU 111. Special Topics. (1.5 h)

A survey of topics in education. Focus will vary by instructor.

#### EDU 120. Personal Framework for Career Exploration. (1.5 h)

First course in the College to Career series. Focuses on student self-assessment including personal attributes such as values, interests, personality/temperament, strengths, and beliefs. Begins the process of connecting student attributes with the exploration of options in the world of work. Open to all students, but designed especially for first- and second-year students. Students may not enroll in EDU 120 and EDU 299 in the same semester. Half semester.

#### EDU 201. Educational Policy and Practice. (3 h)

Philosophical, historical and sociological foundations of education, including analysis of contemporary accountability systems. (CD, D)

#### EDU 201L. Field Lab I. (2 h)

Practical experiences in classrooms with focus on school and society. Weekly public school experience and seminar. Pass/Fail only. Service Learning. P or C - EDU 201, or POI.

#### EDU 202. Field Experience One. (2 h)

Practical experiences in classrooms. Weekly public school experience and seminar. Pass/Fail only.

#### EDU 203. Methodology and Management Lab. (2 h)

Elementary education students observe classroom pedagogy and gain teaching experience in a diverse elementary school classroom through weekly observations and WFU seminars. Service Learning. Pass/Fail only. P- POI.

#### EDU 204. Integrating Literacy, Technology and the Arts across the Elementary Curriculum. (2 h)

Practical strategies for integrating literacy, technology and the arts in all areas of the elementary curriculum, including math, science, social studies and health. C-EDU 250.

#### EDU 205A. Developing Literacy and Communication Skills in Elementary Schools, K-2. (2 h)

Implementing research-based strategies for teaching and assessing reading, writing, listening and speaking in grades K-2. P-POI.

#### EDU 205B. Developing Literacy and Communication Skills in Elementary Schools, Grades 3-6. (2 h)

Implementing research-based strategies for teaching and assessing reading, writing, listening and speaking in grades 3-6. P-POI.

#### EDU 206. Assessment for Positive Student Outcomes. (2 h)

An exploration of K – 6 assessment models and strategies to support positive student outcomes. C-EDU 250.

#### EDU 220. Options in the World of Work. (1.5 h)

Second course in the College to Career series. Explores structure of the world of work, job functions and roles. Focus on nature and expectations of the world of work, including exploration of opportunities aligned with interests of students, and correlation between careers and education, career trajectories, graduate school, employment trends and the unique role work plays in creating meaning in the life of the individual. Open to all students, but designed for first and second year students. Students may not enroll in EDU 220 and EDU 299 in the same semester. Half semester. P or C-EDU 120 or POI.



**EDU 221. Children's Literature. (2 h)**

A survey of the types and uses of literature appropriate for elementary grades, including multicultural literature.

**EDU 222. Integrating the Arts and Movement into the Elementary Curriculum. (2 h)**

A survey of the materials, methods, and techniques of integrating the arts and physical development into the elementary curriculum. P-POI.

**EDU 223. Theatre in Education. (3 h)**

Practical experience for theatre and education students to work together with children in the classroom using theatre to teach core curriculum. Emphasis on methods and techniques as well as the development and implementation of creative lesson plans. Weekly public school teaching experience and seminar. Also listed as THE 270.

**EDU 231. Adolescent Literature. (3 h)**

A survey of literature that centers on the lives of adolescents and young adults. Attention is given to the reading and interpretation of classic and contemporary literature across genres.

**EDU 236. Creativity, Innovation, and Entrepreneurial Thinking in 21st Century Education. (2 h)**

Helps students recognize economic, business, and education changes brought about by increased globalization, the opportunities and challenges associated with globalization, and the need to develop human capacity for success in a global economy that values innovators and entrepreneurs. Designed for any student who is interested in exploring the intersections among the following major course topics: Creativity, Innovation, Entrepreneurial Spirit, Education and Globalization.

**EDU 250. Student Teaching: Elementary. (10 h)**

Supervised teaching experience in grades K-6. Full-time. Includes a weekly reflective seminar. Service Learning. Pass/Fail only. P- POI.

**EDU 271. Geography: The Human Environment. (3 h)**

A survey of the geography of human activity as it occurs throughout the world. Emphasis is placed on current problems related to population, resources, regional development, and urbanization. Credit not allowed for both EDU 271 and 274.

**EDU 272. Geography Study Tour. (3 h)**

A guided tour of selected areas to study physical, economic, and cultural environments and their influence on man. Background references for reading are suggested prior to the tour. Offered in the summer. (CD)

**EDU 273. Geography: The Natural Environment. (3 h)**

A systematic study of the major components of physical geography with special emphasis on climate and topography.

**EDU 274. Environmental Geography. (3 h)**

A systematic study of major environmental issues on a global scale with an exploration of implications and possible solutions. Credit not allowed for both EDU 274 and 271.

**EDU 281. Public Life and the Liberal Arts. (3 h)**

Devoted to topics of abiding significance. Fundamental dilemmas and resolutions associated with each topic will be examined through a consideration of their treatment in the liberal arts tradition. Politics and the Arts, and Theory and Practice in Public Life are representative topics.

**EDU 293. Professional Development Seminar: Elementary. (3 h)**

Seminar in which student teachers reflect on all aspects of the elementary school curriculum, including meeting the needs of diverse learners, lesson planning, best practices, classroom management and leadership.

**EDU 294. Teaching Elementary Language Arts. (3 h)**

Methods and materials for teaching language arts, including adaptations for diverse and exceptional learners. P-POI.

**EDU 295. Teaching Elementary Social Studies. (3 h)**

Methods and materials for teaching social studies, including adaptations for diverse and exceptional learners. P-POI.

**EDU 296. Elementary Mathematics Methods: Inquiry Teaching and Learning. (3 h)**

Methods and materials for teaching elementary mathematics content, including adaptations for diverse and exceptional learners. P-POI.

**EDU 298. Elementary Science Methods: Inquiry Teaching and Learning. (3 h)**

Methods and materials for teaching elementary science content, including adaptations for diverse and exceptional learners. P-POI.

**EDU 299. Career Planning. (1.5 h)**

Covers all of the three components of the career-planning process: (1) personal assessment of work-related values, interests and skills; (2) exploration of career options; and (3) resume writing, interviewing, and job-search skills. Junior or senior standing only. Students may not receive credit for both EDU 320 and EDU 299. Students may not enroll in EDU 120 and EDU 299 in the same semester. Students may not enroll in EDU 220 and EDU 299 in the same semester. Half semester.

**EDU 300. School Leadership. (1 h)**

Development of leadership skills within the context of school and professional learning communities. P-EDU 250.

**EDU 303. History of Western Education. (3 h)**

Educational theory and practice from ancient times through the modern period, including American education.

**EDU 304. Social Justice Issues in Education. (3 h)**

This course facilitates exploration of issues of social justice and schooling from both theoretical and practical perspectives. It includes a focus on multi-cultural education, global awareness, issues of equity in school funding, urban and rural education, poverty, and marginalized populations. (CD)

**EDU 305. The Sociology of Education. (3 h)**

A study of contemporary educational institutions. This course examines such issues as school desegregation, schooling and social mobility, gender equity, and multiculturalism.

**EDU 307. Instructional Design, Assessment, and Technology. (3 h)**

Introduction to contemporary technologies and their applications for supporting instruction, assessment, and professional practice. P - EDU 311.

**EDU 308. School and Society. (3 h)**

A study of continuity and change in educational institutions, including analysis of teachers, students, curriculum, evaluation, contemporary problems, and reform movements.

**EDU 309L. Introduction to Secondary Education. (2 h)**

Practical experiences in classrooms with focus on secondary classrooms and learners. Weekly public school experience and seminar. Pass/Fail only. Service Learning.

**EDU 310. Race, Class, and Gender in a Color-blind Society. (3 h)**

An examination of issues surrounding race, class, and gender in the United States. Topics include income and wealth, theories of discrimination, public education, gender bias, and patterns of occupational and industrial segregation. Also listed as AES 310.



**EDU 311. Learning and Cognitive Science. (3 h)**

Theories and principles of cognition applied to teaching and learning. (CD, D)

**EDU 312. Teaching Exceptional Children. (3 h)**

Surveys the various types of learning differences in K-6 students. Emphasis is on effective teaching and assessment techniques to support diverse learner needs. Students tutor exceptional learners twice a week and complete a research case study on one student. Service Learning. P-POI.

**EDU 313. Human Growth and Development. (3 h)**

A study of the intellectual, emotional, and physical components of growth from birth to adolescence, with special concern for the educational implications of this process.

**EDU 315. Literacy Interventions. (3 h)**

Strategies for assessing the literacy skills of students who struggle with reading and writing and providing them with appropriate interventions. Students attend seminars focused on diagnosis and remediation, provide remedial instruction for one student, and complete a research case study on that student. Service Learning.

**EDU 320. Strategic Job Search Processes. (1.5 h)**

Third course in the College to Career series. Provides students with the fundamental knowledge, strategies, and skills required to conduct an effective job search including professional written and verbal communication; interviewing techniques; networking and other job search strategies; the branding and marketing of oneself; and evaluating offers and negotiation. Half semester. P-EDU 120 and 220 or POI.

**EDU 330. Fathers and Daughters. (3 h)**

Explores father-daughter relationships in contemporary American society through an interdisciplinary lens of film, literature, music, theater, media, and social science research. P-sophomore standing.

**EDU 337. TESOL Linguistics. (3 h)**

An introduction to the theoretical and practical linguistics resources and skills for teaching English to speakers of other languages (TESOL) within the U.S. or abroad. Also listed as LIN 337. P-LIN/ANT 150 or ENG 304; knowledge of a second language is recommended.

**EDU 351. Adolescent Psychology. (3 h)**

An introduction to theories of adolescent psychology as related to teaching and counseling in various settings. The readings emphasize researchers' suggestions for parenting, teaching, and counseling adolescents between the ages of thirteen and nineteen.

**EDU 353. Language in Education. (3 h)**

This seminar explores the role of language in education contexts. Topics include the study of bilingual and bicultural education, second language education, cross-cultural education, and communication in the classroom. Service-learning component. Also listed as ANT 353. (CD)

**EDU 354. Content Pedagogy. (3 h)**

Methods, materials, and techniques used in teaching particular secondary subjects (English, mathematics, science, second languages, social studies). P-POI.

**EDU 354L. Field Lab III. (2 h)**

Practical experiences in classrooms with focus on pedagogy and content. Weekly public school experience and seminar. Service Learning. Pass/Fail only. C-EDU 354.

**EDU 358. Studies in Contemporary Leadership. (3 h)**

An examination of contemporary leadership theory and its various applications in society. Students engage in practical leadership exercises, read on a variety of leadership topics, and develop their own philosophy of leadership. A twenty-five contact hour internship is required.

**EDU 360. Professional and Life Skills. (1.5 h)**

Fourth course in the College to Career series. Transition to life and work after college. Discusses work ethics and etiquette, work relationships, and ongoing career management. Also covers personal life skills such as budgeting and financial management, stress management, and avocations. Course applies liberal arts education to successful, meaningful life after college, including creation of an e-portfolio demonstrating professional competencies gained through the course of their Wake Forest experience. Senior standing only. Half semester.

**EDU 364L. Field Lab IV. (9 h)**

Supervised teaching internship in grades 9-12 (K-12 for foreign language). Full-time, 15-week field experience. Service Learning. Pass/Fail only. P-POI. C-EDU 365.

**EDU 365. Professional Development Seminars. (3 h)**

Analysis and discussion of problems and issues in secondary school teaching. Examination of research and practice-based strategies. Pass/Fail only. C-EDU 364L.

**EDU 368. Professional Experiences in Education. (3 h)**

This course offers students a placement in an educational setting under the supervision of a professional mentor. During this internship, student examine a critical topic in a local school, a community agency, a non-profit organization, or other educational setting. P-minimum gpa of 2.7 and POI.

**EDU 370. Professional Experience in the Engaged Liberal Arts. (3 h)**

This course offers students an opportunity to develop professional experience while exploring the value of their liberal arts education. Students will develop a professional plan and capture evidence of their own impact using the tools of the engaged liberal arts. During this internship, students will examine a critical topic related to leadership or professional development. P-POI.

**EDU 373. Comparative and International Education. (3 h)**

A study of various historical, political, economic, cultural, and social issues shaping education in selected countries throughout the world. The course aims to expand student understanding of differing educational and pedagogical structures and comparatively investigate educational issues around the globe. (CD)

**EDU 374. Student Teaching Seminar. (1.5 h)**

Analysis and discussion of problems and issues in the teaching of particular secondary subjects (English, mathematics, science, second languages, social studies). Emphasis on the application of effective instructional methods and materials.

**EDU 377. Literacy in the 21st Century. (3 h)**

This course examines the impact of emerging literacy trends on 21st century students in a digital, global world.

**EDU 381. Special Needs Seminar. (1 h)**

Analysis and discussion of practical problems and issues in the teaching of special needs students in the secondary classroom. Topics include reading and writing in the content area, inclusion, and evaluation. Pass/Fail only.

**EDU 382. Teaching Elementary Reading. (3 h)**

Methods and materials for teaching reading, including adaptations for diverse and exceptional learners. P-POI.

**EDU 383. Classroom Management Seminar. (1 h)**

Examination of research and practice based strategies for secondary school classroom management and discipline. Pass/Fail Only.

**EDU 385. Diversity Seminar. (1 h)**

Exploration of multi-cultural issues and relevant Spanish language and cultural teaching practices essential for classroom communication. Pass/Fail only.

**EDU 387. Tutoring Writing. (1.5 h)**

Introduction to composition theory and rhetoric with a special emphasis on one-to-one tutoring techniques. Students will analyze their own writing process and experiences, study modern composition theory, and practice tutoring techniques in keeping with these theories. Strongly recommended for those interested in working in the Writing Center as peer tutors. A student may not receive credit for both EDU 387 and WRI 341.

**EDU 388. Writing Pedagogy. (3 h)**

This course blends theory and practice, providing students from all content areas with a foundational understanding of writing-pedagogy methods and approaches. Topics of study will include writing across the curriculum, writing research, and assessment of writing.

**EDU 390. Methods and Materials for Teaching Foreign Languages (K-6). (3 h)**

A survey of the basic materials, methods, and techniques of teaching foreign languages in the elementary and middle grades. Emphasis is placed on issues and problems involved in planning and implementing effective second language programs in grades K-6.

**EDU 391. Teaching the Gifted. (3 h)**

An investigation of theory and practice pertinent to teachers of the gifted.

**EDU 392. The Psychology of the Gifted Child. (3 h)**

A discussion of giftedness and creativity in children and the relationship of those characteristics to adult superior performance. Topics to be covered include a history of the study of precocity, methods and problems of identification, the relationship of giftedness and creativity, personality characteristics and social-emotional problems of gifted children, and the social implications of studying giftedness.

**EDU 393. Individual Study. (1-3 h)**

A project in an area of study not otherwise available in the Department of Education. Permitted upon departmental approval of petition presented by a qualified student.

**EDU 394. Internship in Education of the Gifted. (3 h)**

An intensive period of observation and instruction of gifted students. Readings and directed reflection upon the classroom experience will be used to develop a richer understanding of such a special school setting.

**EDU 395. Teaching Diverse Learners. (3 h)**

This course addresses diversity in the classroom, particularly the needs of English Learners (EL) and exceptional children (EC). Examines differentiated instruction with appropriate instructional and behavioral strategies to meet the needs of all students.

## Faculty

**Chair** Alan Brown

**Francis P. Gaines Professor** Patricia M. Cunningham

**Professors** Adam M. Friedman, Leah P. McCoy, Linda N. Nielsen

**Associate Professors** R. Scott Baker, Alan Brown, Dónal Mulcahy

**Assistant Professors** Debbie French, Danielle Parker-Moore

**Associate Professors of the Practice** Brian Calhoun, Heidi Robinson

**Associate Teaching Professor** Ali Sakkal

**Visiting Clinical Professor** Eleni F. Caldwell

**Teacher-Scholar Postdoctoral Fellow** Joan F. Mitchell

**Adjunct Professors** Nelson C. Brunsting, Molly Lineberger, Donovan Livingston, Bradley D. Shugoll, Shelley Sizemore, Cristofer C. Wiley

## Elementary Education, B.A. Requirements

The elementary education major offers two pathways to the major: a Non-licensure Pathway and a Professional Licensure Pathway. All majors must complete the following core education courses:

Code	Title	Hours
<b>Elementary Education Core</b>		
EDU 201	Educational Policy and Practice	3
EDU 201L	Field Lab I	2
EDU 203	Methodology and Management Lab	2
EDU 205A	Developing Literacy and Communication Skills in Elementary Schools, K-2	2
EDU 205B	Developing Literacy and Communication Skills in Elementary Schools, Grades 3-6	2
EDU 295	Teaching Elementary Social Studies	3
EDU 296	Elementary Mathematics Methods: Inquiry Teaching and Learning	3
EDU 298	Elementary Science Methods: Inquiry Teaching and Learning	3
EDU 307	Instructional Design, Assessment, and Technology	3
EDU 311	Learning and Cognitive Science	3
EDU 395	Teaching Diverse Learners	3

## Non-Licensure Pathway

The elementary education major non-licensure pathway requires 35 hours in the following courses:

Code	Title	Hours
Education Core ( <a href="https://bulletin.wfu.edu/undergraduate/departments-programs/education/ba-elementary-education/#education_core">https://bulletin.wfu.edu/undergraduate/departments-programs/education/ba-elementary-education/#education_core</a> )		29
Elective Major Courses *		6

\* Courses may be chosen from among the list of approved courses. Additional elective courses may have been approved since publication of this bulletin. The major advisor maintains a complete list of all approved elective courses. For course descriptions, see the course listings in this bulletin.

## Professional Licensure Pathway

The elementary education major professional licensure pathway requires 45 hours in the following courses:

Code	Title	Hours
Education Core		29
EDU 250	Student Teaching: Elementary	10
EDU 293	Professional Development Seminar: Elementary	3
EDU 312	Teaching Exceptional Children	3

Exit Requirements

A maximum of 50 hours in the major is allowed within the 120 hours required for graduation. Graduation requirements for professional licensure candidates include: (1) have a minimum grade of C in each course attempted in education and (2) maintain at least a 2.7 GPA while enrolled in the Teacher Education Program. Additional requirements for candidates to be recommended for professional licensure include passing all appropriate state-required standardized tests.

Schools, Education, and Society, Minor Requirements

The minor in Schools, Education, and Society requires 17 hours:

Code	Title	Hours
EDU 201	Educational Policy and Practice	3
EDU 201L	Field Lab I	2
EDU 311	Learning and Cognitive Science	3
EDU 368	Professional Experiences in Education	3
Select two of the following:		6
EDU 223	Theatre in Education	
EDU 231	Adolescent Literature	
EDU 304	Social Justice Issues in Education	
EDU 305	The Sociology of Education	
EDU 307	Instructional Design, Assessment, and Technology	
EDU 308	School and Society	
EDU 310	Race, Class, and Gender in a Color-blind Society	
EDU 337	TESOL Linguistics	
EDU 354	Content Pedagogy	
EDU 373	Comparative and International Education	
EDU 377	Literacy in the 21st Century	
EDU 388	Writing Pedagogy	
EDU 395	Teaching Diverse Learners	

This minor is intended for students who have an interest in education but who are not pursuing a teaching license. However, any student who wishes to major in elementary education or pursue the licensure minor in secondary education and also undertake the minor in Schools, Education, and Society must complete at least nine additional, unique hours of coursework, including EDU 368 and two designated education electives. Some courses are not offered every semester; students should plan ahead in order to fulfill all requirements.

Secondary Education, Minor Requirements

The Licensure minor in secondary professional education requires 31 hours:

Code	Title	Hours
EDU 201	Educational Policy and Practice	3
EDU 201L	Field Lab I	2

EDU 307	Instructional Design, Assessment, and Technology	3
EDU 311	Learning and Cognitive Science	3
EDU 309L	Introduction to Secondary Education	2
EDU 354	Content Pedagogy	3
EDU 364L	Field Lab IV	9
EDU 365	Professional Development Seminars	3
EDU 395	Teaching Diverse Learners	3
Select a major in one of the following secondary license areas:		
English		
Mathematics		
Science		
Social Studies		

Exit Requirements

Graduation requirements for professional licensure candidates include: (1) have a minimum grade of C in each course attempted in education and (2) maintain at least a 2.7 GPA while enrolled in the Teacher Education Program. Additional requirements for candidates to be recommended for professional licensure include passing all appropriate state-required standardized tests.

English Content Requirements

33 hours, including:

Code	Title	Hours
ENG 265	British Literature before 1800	3
ENG 266 or ENG 275	British Literature 1800 to the Present or American Literature	3
Select two pre-1800 British literature courses		
Select one 300-level English course from Genre and Aesthetics		
Select one 300-level English course from History and Literary History		
Select one 300-level English course from Culture		
Select one 300-level English course from Single Author		
Select at least one 200-300 level writing or creative writing course		
Select at least one 300 level course matching the following criteria:		
American Literature		
Shakespeare		
Multicultural or World Literature		
Linguistics or Grammar		
Poetry, Theatre/Drama, or Film		

Mathematics Content Requirements

29 hours, including:

Code	Title	Hours
MST 112	Calculus with Analytic Geometry II	4
MST 113	Multivariable Calculus	4
MST 121	Linear Algebra I	3
MST 321	Modern Algebra I	3

MST 331	Geometry	3
MST 357	Probability	3

Select three other courses beyond MST 113

## Science Content Requirements

Licensure in the individual fields of science: biology (34 hours), chemistry (34.5-35.5 hours for BA), and physics (25 hours). All courses must be from the same courses required for majors in those fields.

## Social Studies Content Requirements

30 hours, including:

Code	Title	Hours
<b>History</b>		
Select six hours from European or World History		6
Select six hours from U.S. History		6
Select six hours from Nonwestern History		6
<b>Social Sciences</b>		
Select one course from Economics		3
Select one course from Geography		3
Select one course from Political Science		3
Select one course from Anthropology or Sociology		3

## Engineering (EGR)

The mission of the engineering major is to educate students in an engineering curriculum that embraces and supports the unique culture of Wake Forest by combining the liberal arts core, innovative entrepreneurship, and engineering. The program provides an undergraduate engineering education that embodies the teacher-scholar ideal, emphasizing the close faculty-student engagement that is the hallmark of the Wake Forest community. Our goal is to attract enthusiastic students from around the US and the world who will make important contributions to solving society's most pressing problems, fulfilling the *Pro Humanitate* motto of Wake Forest University.

## Declaring a Major

Students must complete a minimum of 40 credit hours at WFU and meet with an Engineering Faculty or Engineering Academic Advisor to submit the 'Declaration of Major in Engineering' form. All students majoring in Engineering will be assigned an Engineering Faculty Major Advisor. Note that when a student declares a major or minor, the requirements for the major or minor that are in effect *at the time* of declaration will apply. See the Requirements for Degrees section for further details.

## Exit Requirement

In order to graduate with a B.S. Engineering, majors must take the Fundamentals of Engineering (FE) exam. The FE exam is a national exam and a precursor to licensure.

## Study Abroad

Students considering study abroad should consult with Engineering Department faculty. The second year or Fall of the third year are the most flexible semesters for B.S. Engineering students to study abroad.

## Contact Information

Department of Engineering (<http://college.wfu.edu/engineering/>)

Wake Downtown  
455 Vine Street  
Bldg 60 South, Rm 460X  
Phone 336-702-1926

## Programs Major

- Engineering, B.S.

## Minor

- Engineering, Minor

## Courses Engineering (EGR)

### EGR 110. Introduction to Human-Centered Engineering Design. (4 h)

Introduction to the study and practice of engineering, systems thinking, human-centered design, research, creative and analytical problem-solving practices, and engineering for humanity. With laboratory. This course is targeted at students who are not interested in majoring nor minoring in Engineering. Credit for both EGR 110 and EGR 111 is not allowed. (D)

### EGR 111. Introduction to Engineering Design. (4 h)

Introduction to the study and practice of engineering, systems thinking, design, research, creative and analytical problem-solving practices, and engineering for humanity. With laboratory. This course is targeted at students who are interested in majoring or minoring in Engineering. Credit for both EGR 110 and EGR 111 is not allowed. (D)

### EGR 112. Introduction to Engineering Experimentation. (4 h)

Exploration of tools, processes, and quantitative and qualitative analysis for modern engineering practice. With laboratory.

### EGR 113. Integrated Sciences. (4 h)

An integrated basic science course covering topics in the biological, chemical, and physical sciences. With laboratory.

### EGR 211. Materials and Mechanics. (4 h)

Fundamentals of materials and mechanics (statics and dynamics) for engineering applications. With laboratory. P-CHM 111/111L, EGR 111, 112, MST 111, PHY 113. P or C-MST 112.

### EGR 212. Transport Phenomena. (4 h)

An integrated course in the fundamentals of thermodynamics, fluid mechanics, and heat transfer with emphasis on principles of conservation and transport of mass, energy, and momentum. With laboratory. P-CHM 111/111L, EGR 111, 112, MST 111, 112, PHY 113. P or C-MST 113.

### EGR 213. Mechanical Computer Aided Design I. (2 h)

Introduction to Computer Aided Design (CAD) for mechanical assemblies including design planning additive and subtractive manufacturing techniques. P-EGR 111.

### EGR 214. Embedded Microcontroller Systems. (2 h)

Examination of the structure of digital electronic systems with specific focus on microcontroller architectures for embedded system applications, as well as interfacing with analog and digital peripherals. With laboratory. P-EGR 111 or EGR 112 and CSC 111.



**EGR 215. Digital Electronics. (2 h)**

Design and hardware implementation of digital electronic systems using basic Boolean logic gates and other common digital logic tools such as multiplexers, decoders, flip-flops, shift registers, and counters. With laboratory. P-EGR 111 or 112.

**EGR 280. Projects with Engineering for Non-Majors. (1-4 h)**

Specialized and focused learning via experiential projects. With laboratory. May be repeated for credit.

**EGR 281. Introductory Projects with Engineering for Majors. (1-4 h)**

Specialized and focused learning via experiential projects. Does not count towards engineering technical elective credit. With laboratory. May be repeated for credit.

**EGR 301. Special Topics in Engineering. (1-4 h)**

Seminar and/or lecture and/or project-based and/or laboratory courses in selected topics. Does not count towards engineering technical elective credit unless a designation of "Technical Elective" is noted. May be repeated if the course title changes.

**EGR 311. Control Systems and Instrumentation. (4 h)**

Fundamentals of circuits and semiconductor electronics as applied to the analysis and design of engineering instrumentation and control systems. With laboratory. P-EGR 211, 212, and MST 113. P or C-MST 205 (or MST 121 and MST 251).

**EGR 312. Computational Modeling in Engineering. (4 h)**

Fundamentals of computational problem solving tools (programming, systems modeling, numerical methods) for diverse engineering applications, with consideration of the economic and ethical outcomes of decisions that are made using such techniques. With laboratory. P-EGR 211, 212, MST 113, 205 (or MST 121 and MST 251). (STA 111 highly encouraged but not required).

**EGR 313. Capstone Design I. (1 h)**

The first course of the capstone design experience. C-EGR 311, 312.

**EGR 314. Capstone Design II. (4 h)**

The second course of the capstone design experience. With laboratory. P-EGR 311, 312, and EGR 313.

**EGR 315. Capstone Design III. (4 h)**

The third course of the capstone design experience. With laboratory. P-EGR 314.

**EGR 316. Mechanical Computer Aided Design II. (2 h)**

Advanced Computer Aided Design (CAD) for mechanical systems and stress/strain analysis with consideration of material properties and their role in manufacturability. With laboratory. P-EGR 211.

**EGR 317. Renewable Energy Systems. (2 h)**

Fundamentals of renewable energy systems, including wind, solar, biomass, and hydroelectric with economics evaluation and understanding technological innovations. With laboratory. P-EGR 212.

**EGR 318. Biomimetic Engineering. (2 h)**

Fundamentals of bioinspired design, functional modeling, and reverse engineering principles towards innovative solutions. With laboratory. P-EGR 211, 212.

**EGR 319. Environmental Engineering. (2 h)**

Fundamentals of environmental systems, including water supply, water quality, water treatment, air pollution, soil remediation, environmental risk assessment, and climate variation. Explore how engineers both leverage and sustain these systems and inform environmental and public health policies. With laboratory. P-EGR 211 and 212.

**EGR 320. Biomedical Engineering Applications. (2 h)**

An overview of biomedical engineering applications such as cardiovascular fluid mechanics, biomechanics, biomaterials, tissue engineering, signal processing and instrumentation, and biomedical ethics. With laboratory. P-EGR 211, 212, and MST 205.

**EGR 321. Chemical Engineering Separations. (2 h)**

Theory and design of chemical separation processes, and related flow diagrams, by applying material and energy balances and chemical equilibria fundamentals. Includes distillation, liquid-liquid extraction, ion exchange, and gas absorption. With laboratory. P-EGR 212, MST 205, CHM 122 and 280.

**EGR 322. Materials Engineering and Characterization. (2 h)**

Relationships between atomic structure, microstructure, and observable properties of metallic, ceramic, and polymeric materials. Measurement and modification of material properties. With laboratory. P-EGR 211, MST 112, CHM 111 and 111L.

**EGR 323. Chemical Reaction Engineering. (2 h)**

Rates of homogeneous, catalytic, and biological reactions; reactor design and analysis, and related flow diagrams. With laboratory. P-EGR 212, MST 205, CHM 122 and 280.

**EGR 324. Hydrologic and Hydraulic Engineering. (2 h)**

Fundamentals of the hydrologic cycle, estimating hydrologic fluxes, watershed-scale modelling, and open channel hydraulics. With laboratory. P-EGR 212.

**EGR 325. Medical Product Design. (2 h)**

Fundamentals of innovative and user-centered product design processes. Use of clinical observations and client interviews to derive new medical device designs and analysis for improving system performance. With laboratory. P-EGR 211 and 212.

**EGR 326. Human Factors Engineering. (2 h)**

A systems approach to understanding human-machine interfaces, psychology of design, ergonomics, human error and system reliability. With laboratory. P-EGR 211 and 212.

**EGR 327. Microengineering. (2 h)**

An overview of microengineering systems and an exploration of how size affects critical scaling law parameters, material properties, fabrication techniques, design and use. With laboratory. P-EGR 211 and 212.

**EGR 328. Inverse Problems in Engineering. (2 h)**

Fundamental approaches and techniques in solving inverse problems using mathematical, numerical, and statistical formulations. Applications include satellite remote sensing of the earth and environment, medical imaging, image and signal processing, and machine learning. With laboratory. P-EGR 211, MST 113 and 205, and STA 111.

**EGR 329. Functional Advanced Materials Characterization. (2 h)**

Relationships between atomic structure, microstructure, and observable properties of functional and advanced materials. measurement and modification of material properties. With laboratory. P-EGR 211, MST 113, CHM 111 and 111L.

**EGR 330. Infrastructure Systems Design. (2 h)**

Explore principles of infrastructure systems through experiential learning and application of concepts to design or redesign a local system with consideration of technical, social, environmental, and economic factors. With laboratory. P-EGR 211 and 212.



**EGR 331. Thermal Fluid Systems. (2 h)**

Applying fundamentals of fluid mechanics, heat transfer, and thermodynamics across diverse engineering applications in the analysis and design of thermal fluid systems. With laboratory. P-EGR 212 and MST 205.

**EGR 332. Structural Engineering I. (2 h)**

An introduction to structural engineering systems and materials such as steel, wood, and concrete. Emphasis on understanding the load path within real structures and how that impacts their design. With laboratory. P-EGR 211.

**EGR 333. Tissue Engineering. (2 h)**

Fundamentals of biomaterials, stem cells, and imaging technologies to analyze novel tissue engineering applications. With laboratory. P-EGR 211, 212, BIO 111 or 150, CHM 111 and 111L or POL.

**EGR 334. Mobile Robotics. (2 h)**

Introduction to mobile robotics, from hardware (energy, locomotion, sensors) and software (signal processing, control, localization, trajectory planning, high-level control). With laboratory. P-EGR 211, 212 and 311.

**EGR 335. Field Programmable Gate Array (FPGA) Design and Implementation. (2 h)**

An introduction to field programmable gate array (FPGA) design and implementation. With laboratory. P-EGR 311.

**EGR 336. Healthcare Engineering. (2 h)**

Beyond biomedical engineering, engineers play a critical role in bettering healthcare systems via big data analytics, next generation technologies, translational science and engineering, precision medicine, and diagnostic AI. With laboratory. P-EGR 312.

**EGR 337. Biofluid Mechanics. (2 h)**

Introduction to Bioengineering principles applied to the cardiovascular system. Specifically, this course will apply relevant theories in Fluid Mechanics and Solid Mechanics to the cardiovascular system. With laboratory. P-EGR 211 and 212.

**EGR 338. Bioprinting and Biofabrication. (2 h)**

Engineering principles applied to bioprinting and biofabrication with fundamentals of biomaterials, tissue engineering, and tissue construct design principles. With laboratory. P-EGR 211.

**EGR 339. Engineering Reynolda. (2 h)**

A historical engineering perspective with the historic Reynolda House as a case study. Fundamentals of reverse engineering and research in the context historical structures and systems. Introduction to design as it relates to existing structures. With laboratory. P-EGR 211 and 212.

**EGR 340. Acoustics. (2 h)**

Fundamentals in acoustics involving concepts of wave phenomena and sound perception, governing principles and mathematical modeling of acoustics applications. With laboratory. P-EGR 212.

**EGR 341. 3D Modeling and Additive Manufacturing. (2 h)**

Fundamentals of a variety of 3D printing techniques for rapid prototyping, 3D modeling of standard machine elements, creation of engineering drawings and animations. With laboratory. P-EGR 211.

**EGR 342. Design of Machine Elements. (2 h)**

Application of design theories to practical machine elements and selection of machine components for diverse applications. With laboratory. P-EGR 211.

**EGR 343. Biomaterials. (2 h)**

Fundamentals of different types of biomaterials and their application across a diverse set of biomedical scenarios. With laboratory. P-EGR 211.

**EGR 344. Mechanics of Intelligent Material Systems. (2 h)**

Fundamentals of material systems as actuator, sensors, and energy harvesters across diverse applications, including artificial muscle electroactive polymer technologies, with an emphasis on materials science and engineering design. With laboratory. P-EGR 211.

**EGR 345. System Engineering and Control Theory. (2 h)**

Fundamentals of system engineering and control theory across diverse applications, including mechanical, electrical, environmental, biological, and socio-economic systems. With laboratory. P-EGR 311 and 312.

**EGR 346. Engineering Analysis of Vibrations. (2 h)**

Modeling and solution of free and forced vibrating dynamic systems, including single and multiple degree of freedom systems, as well as continuous systems. Applications includes earthquake modeling, beam and membrane vibrations, etc. With laboratory. P-EGR 211. P or C-MST 112.

**EGR 347. Finite Element Analysis of Engineering Systems. (2 h)**

Fundamentals of finite element methods and commercial finite element codes for solid mechanics, heat transfer, and fluid mechanics applications in one, two, and three dimensions. With laboratory. P-EGR 312.

**EGR 348. Advanced Fluid Mechanics. (2 h)**

Advanced fluid kinematics, finite control volume analysis, and differential analysis of fluid flows. Includes applications of inviscid and viscous flows, similitude, dimensional analysis, open channel flows, compressible flows and flow in turbomachines. With laboratory. P-EGR 212. P or C-MST 113.

**EGR 349. Biomechanics of Human Movement. (2 h)**

Fundamentals of human (and animal) movement and modeling of skeletal, muscular, and neurological motion. Kinematic analysis of human and animal movement, and kinetics (forces) required to generate movement. With laboratory. P-EGR 211.

**EGR 350. Advanced Electronics. (2 h)**

Exploration and applications of operational amplifiers and other analog linear integrated circuits. With laboratory. P-EGR 311.

**EGR 351. Biomechanics of Animal Locomotion. (2 h)**

Biological and mechanical principles of animal movement on both solid ground and through fluids, including flying, swimming, running, jumping, climbing, etc. Considers force production and patterns of movement including muscular action and vortex behavior. With laboratory. P-EGR 211 and 212.

**EGR 380. Fundamentals of Engineering Exam Prep. (1 h)**

Review of engineering fundamentals in preparation for Fundamentals of Engineering exam. P or C-EGR 311 and 312.

**EGR 381. Engineering Research. (1-4 h)**

Engineering research project conducted under the guidance of a research mentor. Does not count towards engineering technical elective credit unless a designation of "Technical Elective" is indicated. Upon completion and review of project deliverables, engineering technical elective credit may be granted. With laboratory. May be repeated for credit.

## Faculty

**Chair** Olga Pierrakos

**Professor** Olga Pierrakos

**Associate Professor** Michael Gross, Saami Yazdani

**Assistant Professors** Courtney Di Vittorio, Erin Henslee, Lauren Lowman, Kyle Luthy, Kyana Young

**Assistant Teaching Professor** Melissa Kenny

**Visiting Assistant Professor** Hunter Bachman

Visiting Assistant Professor of Practice Nick Lutzweiler

## Engineering, B.S. Requirements

The program for each student majoring in engineering is developed individually through consultation with the student's major adviser and leads to a bachelor of science in engineering. The degree is designed to meet ABET accreditation requirements:

1. a minimum of 30 semester credit hours of a combination of college-level mathematics and basic sciences with experimental experience
2. a minimum of 47 credit hours of engineering topics consisting of engineering sciences and engineering design and utilizing modern engineering tools\*
3. a broad education component that complements the technical content of the curriculum
4. a culminating design experience within the major

In meeting the minimum of 30 hours of basic science and mathematics, students must complete the following:

Code	Title	Hours
<b>Basic Science and Mathematics</b>		
CHM 111 & 111L	College Chemistry I and College Chemistry I Lab	4
MST 111	Calculus with Analytic Geometry I	4
MST 112	Calculus with Analytic Geometry II	4
MST 113	Multivariable Calculus	4
MST 205	Introduction to Linear Algebra and Differential Equations	4
PHY 113 & 113L	General Physics I and General Physics Lab	4
or PHY 123 & 123L	General Physics I - Studio Format and General Physics I - Studio Format Lab	

Basic sciences, according to ABET, consist of disciplines focused on knowledge or understanding of the fundamental aspects of natural phenomena such as chemistry, physics, and the life, earth, and space sciences. An integrated science course with a laboratory component will be offered by engineering, EGR 113, and can also count as a basic science course. For the remainder of the minimum 30 credit hours of basic science and mathematics topics, students have the flexibility to select mathematics and basic science elective credits that promote the student's progress toward the completion of a minor or other relevant interests. Students must consult with Engineering Department faculty to ensure that the elective mathematics and basic science credits of interest will count toward this requirement.

In meeting the WFU Engineering minimum of 47 hours of engineering topics, students must complete the following:

Code	Title	Hours
EGR 111	Introduction to Engineering Design	4
EGR 112	Introduction to Engineering Experimentation	4
EGR 211	Materials and Mechanics	4
EGR 212	Transport Phenomena	4
EGR 311	Control Systems and Instrumentation	4

EGR 312	Computational Modeling in Engineering	4
EGR 313	Capstone Design I	1
EGR 314	Capstone Design II	4
EGR 315	Capstone Design III	4

A minimum of 14 additional credit hours in engineering topics must be satisfied through engineering technical electives and courses designated as engineering topics. \*

\* Computer science (CSC) topics may count as part of the minimum of 47 semester credit hours of engineering topics. A pre-approved list of Computer Science courses should be solicited from the Engineering Department Faculty.

To be well positioned for junior-level EGR coursework and to complete the degree in four years, students should complete the following courses during the first two years and should earn a minimum overall GPA of 2.0 in the following courses:

Code	Title	Hours
CHM 111 & 111L	College Chemistry I and College Chemistry I Lab	4
EGR 111	Introduction to Engineering Design	4
EGR 112	Introduction to Engineering Experimentation	4
EGR 211	Materials and Mechanics	4
EGR 212	Transport Phenomena	4
MST 111	Calculus with Analytic Geometry I	4
MST 112	Calculus with Analytic Geometry II	4
MST 113	Multivariable Calculus	4
MST 205	Introduction to Linear Algebra and Differential Equations **	4
or MST 121 & MST 251	Linear Algebra I and Ordinary Differential Equations	
PHY 113 & 113L	General Physics I and General Physics Lab	4
or PHY 123 & 123L	General Physics I - Studio Format and General Physics I - Studio Format Lab	

\*\* The substitution of MST 121 and MST 251 in place of MST 205 may be of particular interest to those students thinking of declaring a Mathematics Minor and/or graduate school in an engineering field.

Note that EGR 111 is not a pre-requisite for EGR 112, so either EGR 111 or EGR 112 can be taken first. Similarly, EGR 211 is not a pre-requisite for EGR 212 and EGR 311 not a pre-requisite for EGR 312, so either EGR 211 or EGR 212 can be taken first and either EGR 311 or EGR 312 can be taken first.

## Engineering Concentrations

Pursuit of an Engineering Concentration does not change the degree which is a Bachelor of Science in Engineering. Pursuit of an Engineering Concentration allows students to show focus in their selection of engineering technical elective courses.

## Exit Requirement

In order to graduate with a B.S. Engineering, majors must take the Fundamentals of Engineering (FE) exam. The FE exam is a national exam and a precursor to licensure.

## Four-Year Planning

A typical, yet customizable, schedule for the BS Engineering major is:

Code	Title	Hours
<b>First Year</b>		
EGR 111	Introduction to Engineering Design	4
EGR 112	Introduction to Engineering Experimentation	4
CHM 111 & 111L	College Chemistry I and College Chemistry I Lab	4
MST 111	Calculus with Analytic Geometry I	4
MST 112	Calculus with Analytic Geometry II	4
PHY 113	General Physics I	4
or PHY 123	General Physics I - Studio Format	
<b>Second Year</b>		
EGR 211	Materials and Mechanics	4
EGR 212	Transport Phenomena	4
MST 113	Multivariable Calculus	4
MST 205	Introduction to Linear Algebra and Differential Equations	4
<b>Third Year</b>		
EGR 311	Control Systems and Instrumentation	4
EGR 312	Computational Modeling in Engineering	4
EGR 313	Capstone Design I	1
EGR technical electives		
Math and/or Basic Science course		
<b>Fourth Year</b>		
EGR 314	Capstone Design II	4
EGR 315	Capstone Design III	4
EGR technical electives		
Math and/or Basic Science course		

Current lists covering all categories of approved courses are available in the Engineering Department and on its website. Additional courses and course updates may have been approved since the publication of this bulletin. The majority of engineering courses integrate theory and practice (e.g., labs, projects, studio) as well as personal and professional development skills.

## Concentrations

### Engineering Concentrations

Requires at least 8 hours across selected engineering technical electives with a focus in the concentration area, as well as the completion of a basic math and science elective from a shortlist specific to the concentration. Each completed course can only be counted toward one concentration. AP credits cannot count towards any of the courses. A minimum overall GPA of 2.0 must be earned on all Wake Forest Engineering courses taken to complete the concentration. The requirements for the concentration are those that are in effect at the time of the declaration of the concentration, as the curriculum and the departmental requirements may change slightly during the student's period of residence. Students interested in the concentration should contact an Engineering Faculty.

### Biomedical Engineering

Code	Title	Hours
Select 8 hours engineering technical electives with biomedical focus from:		
EGR 320	Biomedical Engineering Applications	2
EGR 325	Medical Product Design	2
EGR 333	Tissue Engineering	2
EGR 336	Healthcare Engineering	2
EGR 337	Biofluid Mechanics	2
EGR 338	Bioprinting and Biofabrication	2
EGR 343	Biomaterials	2
EGR 349	Biomechanics of Human Movement	2
EGR 381	Engineering Research *	2
At least one from the following to satisfy basic math and science electives in the concentration:		
HES 384	Special Topics in Health and Exercise Science	1.5-3
BIO 150 & 150L	Biology I and Biology I Lab	4

### Civil and Environmental Concentration

Code	Title	Hours
Select 8 hours engineering technical electives with a civil/environmental focus from:		
EGR 319	Environmental Engineering	2
EGR 324	Hydrologic and Hydraulic Engineering	2
EGR 328	Inverse Problems in Engineering	2
EGR 330	Infrastructure Systems Design	2
EGR 332	Structural Engineering I	2
EGR 339	Engineering Reynolda	2
EGR 381	Engineering Research *	2
At least one from the following to satisfy basic math and science electives in the concentration:		
BIO/ENV 220	Introduction to Earth Science	3
CHM 120 & 120L	Physics and Chemistry of the Environment and Physics and Chemistry of the Environment Lab	4
STA 111	Elementary Probability and Statistics	4
STA 112	Introduction to Regression and Data Science	3

### Electrical Engineering Concentration

Code	Title	Hours
Select 8 hours engineering technical electives with an electrical focus from:		
EGR 214	Embedded Microcontroller Systems	2
EGR 215	Digital Electronics	2
EGR 334	Mobile Robotics	2
EGR 335	Field Programmable Gate Array (FPGA) Design and Implementation	2
EGR 350	Advanced Electronics	2
EGR 381	Engineering Research *	2
At least one from the following to satisfy basic math and science electives in the concentration:		

PHY 114	General Physics II	4
or PHY 124	General Physics II - Studio Format	
PHY 230	Electronics	3

### Materials and Chemical Engineering Concentration

Code	Title	Hours
Select 8 hours engineering technical electives with a materials/chemical focus from:		
EGR 321	Chemical Engineering Separations	2
EGR 332	Structural Engineering I	2
EGR 323	Chemical Reaction Engineering	2
EGR 329	Functional Advanced Materials Characterization	2
EGR 344	Mechanics of Intelligent Material Systems	2
EGR 381	Engineering Research *	2
At least one from the following to satisfy basic math and science electives in the concentration:		
CHM 122 & 122L	Organic Chemistry I and Organic Chemistry I Lab	4
CHM 280	College Chemistry II	3
CHM 364 & 364L	Materials Chemistry and Materials Chemistry Lab	4

### Mechanical Engineering Concentration

Code	Title	Hours
Select 8 hours engineering technical electives with a mechanical focus from:		
EGR 213	Mechanical Computer Aided Design I	2
EGR 316	Mechanical Computer Aided Design II	2
EGR 317	Renewable Energy Systems	2
EGR 331	Thermal Fluid Systems	2
EGR 340	Acoustics	2
EGR 341	3D Modeling and Additive Manufacturing	2
EGR 342	Design of Machine Elements	2
EGR 346	Engineering Analysis of Vibrations	2
EGR 347	Finite Element Analysis of Engineering Systems	2
EGR 348	Advanced Fluid Mechanics	2
EGR 349	Biomechanics of Human Movement	2
EGR 381	Engineering Research *	2
At least one from the following to satisfy basic math and science electives in the concentration:		
PHY 114	General Physics II	4
or PHY 124	General Physics II - Studio Format	
PHY 262	Mechanics	3

## Honors

Qualified majors are considered for honors in engineering. Students should consult with Engineering Department faculty or the major adviser for additional details.

## Engineering, Minor Requirements

Requires at least 16 hours in engineering as well as PHY 113 and MST 111. EGR 111 and EGR 112 are required. The remaining eight hours of EGR credit must be at the 200-level or higher. A minimum overall GPA of 2.0 must be earned on all Wake Forest Engineering courses taken to complete the minor. The requirements for the minor are those that are in effect at the time of the declaration of the minor, as the curriculum and the departmental requirements may change slightly during the student's period of residence. Students interested in the minor should contact an Engineering Faculty or Engineering Academic Advisor.

## English (ENG)

**The English department offers courses in three programs:** Creative Writing (CRW), English Literature and Language (ENG), and Writing (WRI).

**Journalism courses are offered** by the journalism program as related subjects but do not count toward an English major or minor; they may be taken as electives regardless of the field of study in which a student majors. (See section on Journalism.)

## Contact Information

English Department (<http://college.wfu.edu/english/>)

Tribble Hall C201, Box 7387  
336-758-5383

## Programs Major

- English, B.A.

## Minors

- Creative Writing, Minor
- English, Minor
- Writing, Minor

## Courses

### Creative Writing Courses (CRW)

*WRI 111 or exemption therefrom is a prerequisite for any creative writing course.*

#### CRW 100. Introduction to Creative Writing. (3 h)

This workshop explores the fundamentals of writing poetry, fiction, and creative nonfiction. Students analyze the forms of each genre with an eye toward creating literary texts of their own. Through workshops and class discussions, students also learn how to revise their own writing and offer feedback on the work of classmates.

#### CRW 285. Poetry Workshop. (1.5, 3 h)

Craft course in the writing of poetry with an emphasis on developing, reading, and discussing student poems in a supportive classroom community. Study of poetic techniques, forms, and revision as well as the works of historical and/or contemporary poets.

#### CRW 286. Short Story Workshop. (1.5, 3 h)

Study of fundamental principles of short fiction writing; practice in writing; extensive study of short story form.

**CRW 287. Literary Nonfiction Workshop. (3 h)**

Study of the fundamental principles of literary nonfiction, with a focus on subgenres, techniques, and the works of important literary nonfiction writers.

**CRW 300. Topics in Creative Writing. (3 h)**

Workshop centering on theme instead of genre. Students study creative writing through the lens of ideas such as hybridity, ecology, and the visual. Through analyzing important texts, workshops, and class discussions, students hone their skills in fiction, poetry, and/or literary nonfiction, as well as improve their abilities to revise and offer feedback on classmates' work. May be repeated with permission. P-a CRW 100- or 200-level course or POI.

**CRW 384. Playwriting. (3 h)**

Examines the elements of dramatic structure and their representations in a variety of dramatic writings. Explores the fundamentals of playwriting through a series of writing exercises. Also listed as THE 360.

**CRW 385. Advanced Poetry Workshop. (3 h)**

Emphasis on reading and discussing student poems in terms of craftsmanship and general principles. May be repeated once. P-a CRW 100 or 200 course or POI.

**CRW 386. Advanced Fiction Writing. (3 h)**

Primarily a short-story workshop, with class discussion on issues of craft, revision, and selected published stories. May be repeated once. P-a CRW 100- or 200-level course or POI.

**CRW 387. Advanced Literary Nonfiction Workshop. (3 h)**

Emphasis on the theory and craft of creative nonfiction as well as on contemporary writers of creative nonfiction. May be repeated once. P-a CRW 100- or 200-level course or POI.

## English Courses (ENG)

*WRI 111 or exemption therefrom is a prerequisite or a co-requisite for any English course 150 or above. Any 3-credit ENG course numbered ENG 150-ENG 190, ENG 265, ENG 266, ENG 275, or ENG 301-ENG 396, except, ENG 386, ENG 388, and ENG 390 satisfies the Division II literature requirement. Students enrolled at Wake Forest may not take literature courses in English at other institutions to satisfy Division II requirements. This includes courses taken within non-WFU study abroad programs by continuing students.*

**ENG 101. The Discipline of English Studies. (1 h)**

An opportunity to experience and reflect analytically in writing on the diverse cultural and intellectual life at Wake Forest, with an emphasis on literary studies, rhetorical studies, and creative writing events and topics. Pass/fail only. May not be repeated.

**ENG 150. Literature Interprets the World. (3 h)**

Introduction to ways literary artists shape experience, focusing on one topic or selected topics; primarily discussion; writing intensive. P or C-WRI 111 or exemption from WRI 111. (D)

**ENG 165. Studies in British Literature. (3 h)**

Emphasis on important writers representing different periods and genres; primarily discussion; writing intensive. P or C-WRI 111 or exemption from WRI 111. (D)

**ENG 175. Studies in American Literature. (3 h)**

Emphasis on important writers representing different periods and genres; primarily discussion; writing intensive. P or C-WRI 111 or exemption from WRI 111. (D)

**ENG 185. Studies in Global Literature. (3 h)**

Emphasis on important writers representing different periods and genres; primarily discussion; writing intensive. P or C-WRI 111 or exemption from WRI 111. (D)

**ENG 190. Literary Genres. (3 h)**

Emphasis on poetry, fiction, or drama; primarily discussion; writing intensive. P or C-WRI 111 or exemption from WRI 111. (D)

**ENG 265. British Literature before 1800. (3 h)**

Gateway course for the major. Significant works from the British literary tradition before 1800 and introduction to key ideas in literary interpretation. Required for all majors. (D)

**ENG 266. British Literature 1800 to the Present. (3 h)**

Gateway course for the major. Significant works from the British and postcolonial literary traditions since 1800. Either ENG 266 or ENG 275 required for all majors. (D)

**ENG 275. American Literature. (3 h)**

Gateway course for the major. Significant works from the American literary tradition. Either ENG 275 or ENG 266 required for all majors. (D)

**ENG 290. Foundations in Literary Criticism. (3 h)**

Considers figures and schools of thought significant in the history of literary criticism. Required for all majors. (D)

**ENG 298. WFU Press Internship. (1.5-3 h)**

Semester-length practical experience in literary publishing while working at WFU Press, the premier publisher of Irish poetry in North America. Interns learn aspects of editorial review, production, proofreading, marketing, and promotion. Students must submit a formal application through WFU Press before registering ([wfupress.wfu.edu](http://wfupress.wfu.edu)). Pass/Fail. Does not count toward the English Major or Minor. May be repeated once for credit.

**ENG 299. Individual Study. (1.5-3 h)**

Independent study with faculty guidance. Granted upon departmental approval of petition presented by a qualified student. May be repeated once for credit.

**ENG 301. Individual Authors. (3 h)**

Study of selected work from an important American or British author. May be repeated once for credit. (D)

**ENG 302. Ideas in Literature. (3 h)**

Study of a significant literary theme in selected works. May be repeated when the course is taught by a different professor on a different topic. (D)

**ENG 304. History of the English Language. (3 h)**

A survey of the development of English syntax, morphology, and phonology from Old English to the present, with attention to vocabulary growth.

**ENG 305. Old English Language and Literature. (3 h)**

An introduction to the Old English language and a study of the historical and cultural background of Old English literature, including Anglo-Saxon and Viking art, runes, and Scandinavian mythology. Readings from Beowulf and selected poems and prose. Fulfills pre-1800 British literature requirement. (D)

**ENG 308. Beowulf. (3 h)**

Intensive study of the poem; emphasis on language, translation skills and critical context. Fulfills pre-1800 British literature requirement. P-ENG 305 or POI. (D)



**ENG 309. Modern English Grammar. (3 h)**

A linguistics approach to grammar study. Includes a critical exploration of issues such as grammatical change and variation, the origins and effects of grammar prescriptions/proscriptions, the place of grammar instruction in education, and the politics of language authority. Also listed as LIN 309.

**ENG 310. The Medieval World. (3 h)**

Examines theological, philosophical, and cultural assumptions of the Middle Ages through the reading of primary texts. Topics may include Christian providential history, drama, devotional literature, the Franciscan controversy, domestic life, and Arthurian romance. Fulfills pre-1800 British literature requirement. (CD - Depending on topic covered.) (D)

**ENG 311. The Legend of Arthur. (3 h)**

The origin and development of the Arthurian legend in France and England, with emphasis on the works of Chretien de Troyes and Sir Thomas Malory. Fulfills pre-1800 British literature requirement. (D)

**ENG 312. Medieval Poetry. (3 h)**

The origin and development of poetic genres and lyric forms of medieval vernacular poetry. Fulfills pre-1800 British literature requirement. (D)

**ENG 313. Roots of Song. (3 h)**

Interdisciplinary investigation of poetry and song in the Middle Ages and early Renaissance. Study of the evolution of poetic and musical genres and styles, both sacred and secular. Students must complete a project or projects on the technical or theoretical aspects of early song. Fulfills pre-1800 British literature requirement. Also listed as MUS 283. (D)

**ENG 315. Chaucer. (3 h)**

Emphasis on *The Canterbury Tales* and *Troilus and Criseyde*, with some attention to minor poems. Consideration of literary, social, religious, and philosophical background. Fulfills pre-1800 British literature requirement. (D)

**ENG 320. British Drama to 1642. (3 h)**

British drama from its beginning to 1642, exclusive of Shakespeare. Representative cycle plays, moralities, Elizabethan and Jacobean tragedies, comedies, and tragicomedies. Fulfills pre-1800 British literature requirement. Also listed as THE 320. (D)

**ENG 323. Shakespeare. (3 h)**

Thirteen representative plays illustrating Shakespeare's development as a poet and dramatist. Fulfills pre-1800 British literature requirement. Also listed as THE 323. (D)

**ENG 325. 16th-Century British Literature. (3 h)**

Concentration on the poetry of Spenser, Sidney, Shakespeare, Wyatt, and Drayton, with particular attention to sonnets and *The Faerie Queene*. Fulfills pre-1800 British literature requirement. (D)

**ENG 326. Studies in English Renaissance Literature. (3 h)**

Selected topics in Renaissance literature. Consideration of texts and their cultural background. Fulfills pre-1800 British literature requirement. May be repeated once for credit pending approval of instructor. (D)

**ENG 327. Milton. (3 h)**

The poetry and selected prose of John Milton, with emphasis on *Paradise Lost*. Fulfills pre-1800 British literature requirement. (D)

**ENG 328. 17th-Century British Literature. (3 h)**

Poetry of Donne, Herbert, Vaughan, Marvel, Crashaw; prose of Bacon, Burton, Browne, Walton. Consideration of religious, political, and scientific backgrounds.

**ENG 330. Restoration and 18th-Century British Literature. (3 h)**

Representative poetry and prose, exclusive of the novel, 1660-1800, drawn from Dryden, Behn, Swift, Pope, Johnson, and Wollstonecraft. Consideration of cultural backgrounds and significant literary trends. Fulfills pre-1800 British literature requirement. (D)

**ENG 333. Jane Austen. (3 h)**

An intensive study of the works of British novelist Jane Austen, and her cultural contexts.

**ENG 335. 18th-Century British Fiction. (3 h)**

Primarily the fiction of Defoe, Richardson, Fielding, Smollett, Sterne, and Austen. Fulfills pre-1800 British literature requirement. (D)

**ENG 336. Restoration and 18th-Century British Drama. (3 h)**

British drama from 1660 to 1780, including representative plays by Dryden, Etherege, Wycherley, Congreve, Goldsmith, and Sheridan. Fulfills pre-1800 British literature requirement. Also listed as THE 336. (D)

**ENG 337. Studies in 18th-Century British Literature. (3 h)**

Selected topics in 18th-century literature. Consideration of texts and their cultural background. Fulfills pre-1800 British literature requirement. (D)

**ENG 338. Studies in Gender and Literature. (3 h)**

Thematic and/or theoretical approaches to the study of gender in literature. (D)

**ENG 339. Studies in Sexuality and Literature. (3 h)**

Thematic and/or theoretical approaches to the study of sexuality in literature. (D)

**ENG 340. Studies in Women and Literature. (3 h)**

Women writers in society. (D)

**ENG 341. Literature and the Environment. (3 h)**

Studies of the relationship between environmental experience and literary representation. (D)

**ENG 344. Studies in Poetry. (3 h)**

Selected topics in poetry. (D)

**ENG 345. Studies in Fiction. (3 h)**

Selected topics in fiction. (D)

**ENG 346. Studies in Theatre. (3 h)**

Selected topics in drama. (D)

**ENG 347. Modern English and Continental Drama and the London Stage. (3 h)**

Explores the works of major playwrights of England and Europe from 1875 to the present. May also include contemporary production of classic plays. Emphasizes plays currently being presented in London theatres. Also listed as THE 266. Offered in London. (D)

**ENG 350. British Romantic Poets. (3 h)**

A review of the beginnings of Romanticism in British literature, followed by study of Wordsworth, Coleridge, Byron, Keats, and Shelley; collateral reading in the prose of the period. (D)

**ENG 351. Studies in Romanticism. (3 h)**

Selected topics in European and/or American Romanticism with a focus on comparative, interdisciplinary, and theoretical approaches to literature. (D)

**ENG 353. 19th-Century British Fiction. (3 h)**

Representative major works by Dickens, Eliot, Thackeray, Hardy, the Brontes, and others. (D)

**ENG 354. Victorian Poetry. (3 h)**

A study of Tennyson, Browning, Hopkins, and Arnold or another Victorian poet. (D)

**ENG 356. Literature of the Caribbean. (3 h)**

Readings include significant works by authors from the Caribbean and authors writing about the Caribbean. Critical, historical, and cultural approaches are emphasized. All texts are in English. (CD, D)

**ENG 357. Studies in Chicano/a Literature. (3 h)**

Writings by Americans of Mexican descent in relation to politics and history. Readings in literature, literary criticism, and socio-cultural analysis. Fulfills the American literature requirement. Also listed as AES 357. (CD, D)

**ENG 358. Postcolonial Literature. (3 h)**

A survey of representative examples of postcolonial literature from geographically diverse writers, emphasizing issues of politics, nationalism, gender and class. (CD, D)

**ENG 359. Studies in Postcolonial Literature. (3 h)**

Examination of themes and issues in post-colonial literature, such as: globalization, postcolonialism and hybridity, feminism, nationalism, ethnic and religious conflict, the impact of the Cold War, and race and class. (CD, D)

**ENG 360. Studies in Victorian Literature. (3 h)**

Selected topics, such as development of genres, major authors and texts, and cultural influences. Readings in poetry, fiction, autobiography, and other prose. (D)

**ENG 361. Literature and Science. (3 h)**

Literature of and about science. Topics will vary and may include literature and medicine, the two culture debate, poetry and science, nature in literature, the body in literature. (D)

**ENG 362. Irish Literature in the Twentieth Century. (3 h)**

A study of modern Irish literature from the writers of the Irish Literary Renaissance to contemporary writers. Course consists of overviews of the period as well as specific considerations of genre and of individual writers. (D)

**ENG 363. Studies in Modernism. (3 h)**

Selected issues in Modernism. Interdisciplinary, comparative, and theoretical approaches to works and authors. (D)

**ENG 364. Advanced Studies in Literary Criticism. (3 h)**

Consideration of certain figures and schools of thought significant in the history of literary criticism. Builds on ENG 290 Foundations in Literary Criticism. (D)

**ENG 365. 20th-Century British Fiction. (3 h)**

A study of Conrad, Lawrence, Joyce, Forster, Woolf, and later British writers, with attention to their social and intellectual backgrounds. (D)

**ENG 366. James Joyce. (3 h)**

The major works by James Joyce, with an emphasis on *Ulysses*. (D)

**ENG 367. 20th-Century English Poetry. (3 h)**

A study of 20th-century poets of the English language, exclusive of the United States poets, are read in relation to the literary and social history of the period. (D)

**ENG 368. Studies in Irish Literature. (3 h)**

The development of Irish literature from the 18th century through the early 20th century in historical perspective, with attention to issues of linguistic and national identity. (D)

**ENG 369. Modern Drama. (3 h)**

Main currents in modern drama from 19th-century realism and naturalism through symbolism and expressionism. After an introduction to European precursors, focus is on representative plays by Wilde, Shaw, Synge, Yeats, O'Neill, Eliot, Hellman, Wilder, Williams, Hansberry, and Miller. (D)

**ENG 370. American Literature to 1820. (3 h)**

Origins and development of American literature and thought in representative writings of the Colonial, Revolutionary, and Federal periods. Fulfills the American literature requirement. (D)

**ENG 371. American Ethnic Literature. (3 h)**

Introduction to the diverse field of literature about race and racial formation as experienced by African Americans, Asian Americans, Jewish Americans, Chicana/o, Latinx, and Native American writers. The course introduces key genealogies of thought in critical race theory, intersectionality, diaspora, identity, alienation, assimilation, multiculturalism, stereotyping, systemic racism, and social justice. Fulfills the American literature requirement. (CD, D)

**ENG 372. American Romanticism. (3 h)**

Writers of the mid-19th century, including Emerson, Thoreau, Hawthorne, and Melville. Fulfills the American literature requirement. (D)

**ENG 373. Literature and Film. (3 h)**

Selected topics in the relationship between literature and film, such as film adaptations of literary works, the study of narrative, and the development of literary and cinematic genres. (D)

**ENG 374. American Fiction before 1865. (3 h)**

Novels and short fiction by such writers as Brown, Cooper, Irving, Poe, Hawthorne, Melville, Stowe, and Davis. Fulfills the American literature requirement. (D)

**ENG 375. American Drama. (3 h)**

A historical overview of drama in America, covering such playwrights as Boucicault, O'Neill, Hellman, Wilder, Williams, Inge, Miller, Hansberry, Albee, Shepard, Norman, Mamet, and Wilson. Fulfills the American literature requirement. Also listed as THE 375. (D)

**ENG 376. American Poetry before 1900. (3 h)**

Readings and critical analysis of American poetry from its beginnings to the end of the 19th century, including Bradstreet, Emerson, Longfellow, Melville, and Poe, with particular emphasis on Whitman and Dickinson. Fulfills the American literature requirement. (D)

**ENG 377. American Jewish Literature. (3 h)**

Survey of writings on Jewish topics or experiences by American Jewish writers. Explores cultural and generational conflicts, responses to social change, the impact of the Shoah (Holocaust) on American Jews, and the challenges of language and form posed by Jewish and non-Jewish artistic traditions. Fulfills the American literature requirement. (CD, D)

**ENG 378. Literature of the American South. (3 h)**

Study of Southern literature from its beginnings to the present, with emphasis upon such major writers as Tate, Warren, Faulkner, O'Connor, Welty, and Styron. Fulfills the American literature requirement. (D)

**ENG 379. Literary Forms of the American Personal Narrative. (3 h)**

Reading and critical analysis of autobiographical texts in which the ideas, style, and point of view of the writer are examined to demonstrate how these works contribute to an understanding of pluralism in American culture. Representative authors may include Hurston, Wright, Kingston, Angelou, Wideman, Sarton, Chuang Hua, Crews, and Dillard. Fulfills the American literature requirement. (D)

**ENG 380. American Fiction 1865 to 1915. (3 h)**

Study of such writers as Twain, James, Howells, Crane, Dreiser, Wharton, and Cather. Fulfills the American literature requirement. (D)

**ENG 381. Studies in African-American Literature. (3 h)**

Reading and critical analysis of selected fiction, poetry, drama, and other writings by American authors of African descent. Fulfills the American literature requirement. (CD, D)

**ENG 382. Modern American Fiction, 1915 to 1965. (3 h)**

Includes such writers as Stein, Lewis, Anderson, Hemingway, Fitzgerald, Faulkner, Dos Passos, Wolfe, Wright, Ellison, Agee, Flannery O'Connor, and Pynchon. Fulfills the American literature requirement. (D)

**ENG 385. 20th-Century American Poetry. (3 h)**

Readings of modern American poetry in relation to the literary and social history of the period. Fulfills the American literature requirement. (D)

**ENG 386. Directed Reading. (1.5-3 h)**

A tutorial in an area of study not otherwise provided by the department; granted upon departmental approval of petition presented by a qualified student. May be repeated once for credit.

**ENG 387. African-American Fiction. (3 h)**

Selected topics in the development of fiction by American writers of African descent. Fulfills the American literature requirement. Also listed as AES 387. (CD, D)

**ENG 388. Honors in English. (3 h)**

A conference course centering upon a special reading requirement and a thesis requirement. For senior students wishing to graduate with "Honors in English."

**ENG 389. African-American Poetry. (3 h)**

Readings of works by American poets of African descent in theoretical, critical, and historical contexts. Fulfills the American literature requirement. Also listed as AES 389. (CD, D)

**ENG 390. The Structure of English. (3 h)**

An introduction to the principles and techniques of modern linguistics applied to contemporary American English. Also listed as LIN 390.

**ENG 391. Studies in Postmodernism. (3 h)**

Interdisciplinary, comparative, and theoretical approaches to works and authors.

**ENG 393. Multicultural American Drama. (3 h)**

Examines the dramatic works of playwrights from various racial and ethnic communities such as Asian American, Native American, African American, and Latino. The course includes consideration of issues, themes, style, and form. Fulfills the American literature requirement. Also listed as THE 376. (CD, D)

**ENG 394. Contemporary Drama. (3 h)**

Considers experiments in form and substance in plays from *Waiting for Godot* to the present. Readings will cover such playwrights as Beckett, Osborne, Pinter, Stoppard, Churchill, Wertebaker, Albee, Shepard, Mamet, Wilson, Soyinka, and Fugard. Also listed as THE 372. (D)

**ENG 395. Contemporary American Literature. (3 h)**

A study of post-World War II American poetry and fiction by such writers as Bellow, Gass, Barth, Pynchon, Lowell, Ashbery, Ammons, Bishop, and Rich. Fulfills the American literature requirement. (D)

**ENG 396. Contemporary British Fiction. (3 h)**

Study of the British novel and short story, including works by Rushdie, Amis, Winterson and Ishiguro. (D)

**ENG 397. Internship in the Major. (1.5 h)**

Internship that involves both hands-on experience and academic study. Students will partner with a literature faculty member to integrate work in the community and engagement with his or her academic plan of study. P-POI.

**ENG 398. English Studies and the Professions. (1.5 h)**

A practicum course focused on career design and career planning, specific to career options in humanities fields. The course will broaden awareness of career opportunities available to English majors and minors. Pass-Fail Only. Cannot be repeated.

## Writing Courses (WRI)

*Any student with an AP score of 4 or 5, an IB, higher level, score of 6 or 7, or exemption by the department is exempt from WRI 111.*

*WRI 111 or exemption therefrom is a prerequisite for any Writing course above 111.*

**WRI 105. Introduction to Critical Reading and Writing. (3 h)**

Foundational course designed for students who want additional practice transitioning to college writing. Students receive training in critical reading and practice fundamentals of academic writing through frequent essays. Elective credit; does not satisfy the basic composition requirement. Not open to continuing students.

**WRI 107. Foundations in Academic Research and Writing. (3 h)**

An introduction to college-level writing through sequenced writing assignments that will guide students through the writing processes, from summary to analysis. Emphasis on critical reading, argumentative writing, and research. Summer only; elective credit; does not satisfy the basic writing requirement.

**WRI 108. Introduction to Academic Writing. (3 h)**

An introduction to academic writing for English language learners. Designed for international students whose first language is not English as they make the transition to U.S. university writing. Emphasis is placed on cultural assumptions that underlie U.S. college writing, as well as, grammar, academic phrasing, and organizational strategies.

**WRI 111. Writing Seminar. (4 h)**

A seminar that introduces students to the study and practice of college writing; discussion-based; theme-driven; writing-intensive; required conferencing.

**WRI 210. Advanced Academic Writing. (3 h)**

An advanced composition course focused on the study of academic writing. Students consider the rhetorical and linguistic features of research-based writing, examine methods of research and evidence-gathering, and analyze argumentation across fields. Enrollment limited. P - WRI 111 or exemption from WRI 111.

**WRI 212. Literary Nonfiction: Art of the Essay. (3 h)**

Reading, writing, and analysis of the essay. Consideration of the rise and evolution of various forms of the essay; inclusive of essayists from a variety of disciplines. Enrollment limited. P - WRI 111 or exemption from WRI 111.

**WRI 306. Special Topics in Rhetoric and Writing. (1.5, 3 h)**

Study of significant rhetorical or writing theories and practices focused on one area of study. May be repeated once for credit.

**WRI 307. Contemporary Theory of Rhetoric and Writing. (1.5, 3 h)**

Study of key historical developments and theories in the current field of rhetoric and writing studies since its 20th-century inception.

**WRI 310. Interaction in Language: Introduction to Written Discourse Studies. (3 h)**

Analysis of theoretical traditions in discourse studies, including Pragmatics, Analysis of Institutional Talk, Genre Analysis, and Corpus Linguistics, designed to provide students with new approaches and tools with which to question, investigate, and critique how language works in discourses that are meaningful to them.

**WRI 320. Writing in and about Science: Scientists as Writers and Writers as Scientists. (3 h)**

Reading, writing, and analysis of scholarly and popular science writing. Consideration of scientists as writers and rhetoricians, namely, the varied purposes and audiences for which scientists and science writers compose. Enrollment limited. P - WRI 111 or exemption from WRI 111.

**WRI 340. Practice in Rhetoric and Writing. (3 h)**

Training and practice in the reading and writing of expository prose. Students study the uses of rhetoric to frame arguments and marshal evidence, then learn to practice these skills in their own writing of expository prose.

**WRI 341. Writing Center Pedagogy. (3 h)**

Introduction to composition pedagogy and writing center theory and practices, with special emphases on one-to-one and small group peer tutoring techniques. The course includes classroom-based work - reading, writing, responding, discussing, and exploring instruction and consultation processes - and field experiences. Students spend a total of 20 hours observing in writing classrooms, the WFU Writing Center and/or community sites, and tutoring. Students reflect on these experiences to prepare a final researched writing project. Strongly recommended for those interested in working in the Writing Center as peer tutors.

**WRI 342. Writing Practicum. (1-3 h)**

Practical or professional experience in writing, rhetoric, and composition. Students must be supervised and mentored by a faculty adviser. Cannot be repeated.

**WRI 343. Independent Study. (1-3 h)**

Independent study with faculty guidance. By prearrangement.

**WRI 344. Magazine Writing. (3 h)**

Analysis of magazine writing and long form journalism with practice pitching, reporting and writing articles in a range of styles and of varied lengths with specific audiences in mind. Also listed as JOU 340. P - JOU 270 or POI.

**WRI 350. Writing Minor Capstone. (3 h)**

Seminar course in which students read widely in writing studies, compose new and revise previous essays, and create an e-portfolio. Required of all students wishing to graduate with an interdisciplinary writing minor.

## Faculty

**Chair** Jessica Richard

**Associate Chair** Barry Maine

**Director of Writing Program** Erin Branch

**Director of English Undergraduate Studies** Melissa Jenkins

**Director of English Core Curriculum** Rian Bowie

**Director of Creative Writing Program** Eric Wilson

**Director of Journalism** Phoebe Zerwick

**Director of Writing Center** Ryan Shirey

**Reynolds Professor of English** Herman Rapaport

**Thomas H. Pritchard Professor of English** Eric G. Wilson

**Wake Forest Professor of Humanities** Corey D.B. Walker

**William R. Kenan Jr. Chair in the Humanities** Laura Mullen

**Winifred W. Palmer Professor in Literature** Dean J. Franco

**Ollen R. Nally Faculty Fellow** Sarah Hogan

**Susan & Gene Goodson Faculty Fellow** Zak Lancaster

**Z. Smith Reynolds Foundation Faculty Fellow** Rain Bowie

**Z. Smith Reynolds Foundation Faculty Fellow** Erin Branch

**Professors** Anne M. Boyle, Jefferson Holdridge, Claudia Kairoff, Scott Klein, Barry G. Maine, Gale Sigal, Corey D.B. Walker

**Research Professor** Gillian R. Overing

**Associate Professors** Amy Catanzano, Jennifer Greiman, Susan Harlan, Omaar Hena, Sarah Hogan, Melissa Jenkins, Zak Lancaster, Judith Irwin Madera, Jessica Richard, Joanna Ruocco, Erica Still, Olga Valbuena-Hanson

**Assistant Professors** Lucy Alford, Chris Brown, Derek Lee, Alisa Russell

**Professor of the Practice** Justin J. Catanoso

**Associate Professor of the Practice** Phoebe Zerwick

**Associate Teaching Professors** Rian Bowie, Erin Branch, Eric Ekstrand, Laura Giovannelli, Jennifer Pyke, Randi Saloman, Ryan Shirey, Eric Stottlemeyer, Elisabeth Whitehead

**Assistant Teaching Professors** Kendra Andrews, Keri Epps, Marianne Erhardt, Meredith Farmer, Matt Garite, Hannah Harrison, Danielle Koupf, Jonathan Smart, Siddharth Srikanth, Carter Smith, Guy Witzel

**Visiting Assistant Professors** Jack Bell, Brenna Casey, Lisa Klarr, Matt Fiander

**Adjunct Professor** Paul Garber, Adrian Greene, Carrie Johnston

**Part-time Instructor in Journalism** Maria Henson, Barry Yeoman

## English, B.A. Requirements

Requires a minimum of 33 hours in courses ENG 150 and above.

(WRI 105 and WRI 111, basic writing requirements, do not count toward the major or minor nor do they count as a divisional requirement.) The courses for the major must include:

Code	Title	Hours
ENG 265	British Literature before 1800 (gateway course)	3
ENG 266 or ENG 275	British Literature 1800 to the Present (gateway courses) American Literature	3
ENG 290	Foundations in Literary Criticism (gateway course)	3
Select four 300-level English courses from among the following four groups:		12
I: Genre and Aesthetics		
II: History and Intellectual History		
III: Culture		
IV: Single Author		
Select nine hours of electives at 300-level (may include up to two 300-level Creative Writing or Writing courses)		9
Select three hours of any ENG course at the 100-level or above or a three-hour 200-level course in either Creative Writing or Writing		3

All students must take two 300-level ENG courses that fulfill the pre-1800 British literature requirement, one 300-level ENG course that fulfills the American literature requirement, and one 300-level course that fulfills the Race and Racialization requirement. These are "overlay" requirements,



which means that one course may be designated as fulfilling more than one of these requirements.

Students who declared the major before Fall 2020 must take one course from each of the four major groupings: Genre, History, Culture, and Single Author. Students who declare the major in Fall 2020 or later may select four courses from among the groupings without a set distribution requirement.

Selected 300-level courses are offered in different versions that fall under different major groupings. The group designation for a particular class may vary from one semester to the next, depending on the instructor; please consult the course descriptions posted on the English department website to confirm the group designation for a specific course. Students may take only one version of a given course for credit, with the exception of ENG 301 or ENG 302, which may be repeated when offered on different subjects.

Majors and their advisers plan individual programs to meet these requirements; majors are urged to take their gateway requirements as early as possible in their college careers. No more than two courses (six hours) taken elsewhere may be counted toward the 24 hours of 300-level English courses required for the major. This limitation applies to courses taught in approved non-Wake Forest programs, not to courses in programs offered or sponsored by Wake Forest.

## I: Genre and Aesthetics

Code	Title	Hours
ENG 302	Ideas in Literature	3
ENG 312	Medieval Poetry	3
ENG 320	British Drama to 1642	3
ENG 335	18th-Century British Fiction	3
ENG 336	Restoration and 18th-Century British Drama	3
ENG 341	Literature and the Environment	3
ENG 344	Studies in Poetry	3
ENG 345	Studies in Fiction	3
ENG 346	Studies in Theatre	3
ENG 347	Modern English and Continental Drama and the London Stage	3
ENG 353	19th-Century British Fiction	3
ENG 354	Victorian Poetry	3
ENG 358	Postcolonial Literature	3
ENG 359	Studies in Postcolonial Literature	3
ENG 360	Studies in Victorian Literature	3
ENG 363	Studies in Modernism	3
ENG 365	20th-Century British Fiction	3
ENG 368	Studies in Irish Literature	3
ENG 369	Modern Drama	3
ENG 373	Literature and Film	3
ENG 374	American Fiction before 1865	3
ENG 375	American Drama	3
ENG 376	American Poetry before 1900	3
ENG 379	Literary Forms of the American Personal Narrative	3
ENG 382	Modern American Fiction, 1915 to 1965	3
ENG 385	20th-Century American Poetry	3

ENG 387	African-American Fiction	3
ENG 389	African-American Poetry	3
ENG 391	Studies in Postmodernism	3
ENG 393	Multicultural American Drama	3
ENG 394	Contemporary Drama	3
ENG 395	Contemporary American Literature	3
ENG 396	Contemporary British Fiction	3

## II: History and Intellectual History

Code	Title	Hours
ENG 302	Ideas in Literature	3
ENG 310	The Medieval World	3
ENG 311	The Legend of Arthur	3
ENG 325	16th-Century British Literature	3
ENG 326	Studies in English Renaissance Literature	3
ENG 328	17th-Century British Literature	3
ENG 330	Restoration and 18th-Century British Literature	3
ENG 338	Studies in Gender and Literature	3
ENG 339	Studies in Sexuality and Literature	3
ENG 341	Literature and the Environment	3
ENG 350	British Romantic Poets	3
ENG 351	Studies in Romanticism	3
ENG 353	19th-Century British Fiction	3
ENG 354	Victorian Poetry	3
ENG 357	Studies in Chicano/a Literature	3
ENG 358	Postcolonial Literature	3
ENG 360	Studies in Victorian Literature	3
ENG 361	Literature and Science	3
ENG 362	Irish Literature in the Twentieth Century	3
ENG 363	Studies in Modernism	3
ENG 364	Advanced Studies in Literary Criticism	3
ENG 367	20th-Century English Poetry	3
ENG 368	Studies in Irish Literature	3
ENG 370	American Literature to 1820	3
ENG 372	American Romanticism	3
ENG 380	American Fiction 1865 to 1915	3
ENG 387	African-American Fiction	3

## III: Culture

Code	Title	Hours
ENG 302	Ideas in Literature	3
ENG 310	The Medieval World	3
ENG 311	The Legend of Arthur	3
ENG 313	Roots of Song	3
ENG 337	Studies in 18th-Century British Literature	3
ENG 338	Studies in Gender and Literature	3
ENG 339	Studies in Sexuality and Literature	3
ENG 340	Studies in Women and Literature	3
ENG 341	Literature and the Environment	3
ENG 356	Literature of the Caribbean	3
ENG 357	Studies in Chicano/a Literature	3



ENG 358	Postcolonial Literature	3
ENG 359	Studies in Postcolonial Literature	3
ENG 360	Studies in Victorian Literature	3
ENG 371	American Ethnic Literature	3
ENG 377	American Jewish Literature	3
ENG 378	Literature of the American South	3
ENG 381	Studies in African-American Literature	3
ENG 387	African-American Fiction	3
ENG 389	African-American Poetry	3
ENG 393	Multicultural American Drama	3

## IV: Single Author

Code	Title	Hours
ENG 301	Individual Authors	3
ENG 315	Chaucer	3
ENG 323	Shakespeare	3
ENG 327	Milton	3
ENG 333	Jane Austen	3
ENG 366	James Joyce	3

## Honors

Highly qualified majors recommended by the English faculty are invited to apply to the honors program in English during the second semester of their junior year. To graduate with "Honors in English," students must have a minimum GPA of 3.5 in the major and 3.2 in all course work. Students must also fulfill the 10-page writing requirement in the fall semester that allows them to enroll in ENG 388 the spring semester of their senior year. Finally, they must satisfy the requirements of the program by completing and successfully defending their honors thesis as part of ENG 388 Honors in English. Interested students may consult the director of the English honors program for further information.

## Creative Writing, Minor Requirements

Creative writing courses are open to minors and non-minors. Students who declare a Creative Writing Minor receive first preference in enrolling in creative writing courses in the English department during pre-registration periods.

The Creative Writing minor requires five course (15 hours), including one 300-level literature course offered by the English department. The remaining four courses will consist of Creative Writing workshops offered by the English department (poetry, fiction, literary nonfiction, and the 100-level multi-genre course) or cross-listed with the minor (playwriting and screenwriting); at least two of these must be at the 300-level. While CRW 100 counts towards the minor for students who wish to take this course, it is not required. To enroll in a 300-level workshop, students must have taken a 200-level workshop.

English majors may earn a Creative Writing minor by taking four creative writing courses (at least two at the 300-level) exclusive of courses used to complete their major.

Code	Title	Hours
<b>Creative Writing (CRW) courses that fulfill the minor</b>		
CRW 100	Introduction to Creative Writing	3

CRW 285	Poetry Workshop	3
CRW 286	Short Story Workshop	3
CRW 287	Literary Nonfiction Workshop	3
CRW 300	Topics in Creative Writing	3
CRW 384	Playwriting	3
CRW 385	Advanced Poetry Workshop	3
CRW 386	Advanced Fiction Writing	3
CRW 387	Advanced Literary Nonfiction Workshop	3
<b>Electives that fulfill the minor</b>		
COM 316	Screenwriting	3

## English, Minor Requirements

The minor in English requires 21 hours in courses ENG 150 and above, at least 15 of which must be in advanced ENG courses numbered ENG 301-ENG 398. No more than two advanced Creative Writing or Writing courses (CRW 385, CRW 386, CRW 387, WRI 344, WRI 350) may be counted toward the minor. Each minor will be assigned an adviser in the English department who will plan a program of study with the student. No more than one course (three hours) taken elsewhere may be counted toward the minor. This limitation applies to courses taught in approved non-Wake Forest programs, not to courses in programs offered or sponsored by Wake Forest.

## Writing, Minor Requirements

Students in the Writing minor will develop their academic, critical, and rhetorical writing skills in ways that enhance their major courses of study. By moving beyond the competencies introduced in the first-year writing seminar, the Writing minor will provide students with opportunities to practice, refine, and extend their skills as academic, professional, and creative writers. The curriculum, composed of new and existing courses in rhetoric and writing, as well as writing-enhanced courses across the disciplines, prepares students to participate in various writing situations both inside and outside the academy.

At least 18 credits of coursework, including:

Code	Title	Hours
Select one 3-credit gateway course		3
Select one 3-credit capstone course		3
Select an additional six credits from upper level writing courses		6
Select six credits from elective or upper-level writing courses		6

## Gateway Courses: Introduction to the Minor

Code	Title	Hours
WRI 210	Advanced Academic Writing *	3
or WRI 212	Literary Nonfiction: Art of the Essay	

\* The course not taken as the introduction to the minor may be taken in the second category.

## Upper Level Writing Courses

Minimum of 6 credits:

Code	Title	Hours
WRI 210	Advanced Academic Writing	3
WRI 212	Literary Nonfiction: Art of the Essay	3
WRI 306	Special Topics in Rhetoric and Writing	1.5,3
WRI 307	Contemporary Theory of Rhetoric and Writing	1.5,3
WRI 310	Interaction in Language: Introduction to Written Discourse Studies	3
WRI 320	Writing in and about Science: Scientists as Writers and Writers as Scientists	3
WRI 340	Practice in Rhetoric and Writing *	3
WRI 341	Writing Center Pedagogy	3
WRI 344	Magazine Writing	3
ENG 309	Modern English Grammar	3
ENG 390	The Structure of English	3

\* May be repeated once for credit towards the minor.

## Writing Electives

Any upper level writing course or writing-enriched courses across the disciplines that do not satisfy the gateway course or the 6 credits toward the minor may be used as electives. (A list of writing enhanced courses will be found on the Writing Program's webpage.)

## Writing Minor Capstone

Code	Title	Hours
WRI 350	Writing Minor Capstone	3

The Writing Minor is intended to complement a student's major, and "double dipping" is discouraged. No more than one course may count toward another program of study.

## Entrepreneurship (ENT)

### Overview

Interdisciplinary Minor

The Wake Forest Center for Entrepreneurship offers an interdisciplinary minor in entrepreneurship. Through a modern evidence-based entrepreneurship curriculum, emphasis on deliberate practice, and strong teaching and mentorship, the Center seeks to ignite passion for entrepreneurial action, to develop entrepreneurial self-efficacy, and to cultivate a growth mindset for entrepreneurship. The entrepreneurship minor can be coupled with any liberal arts major and gives students valuable skills for their future careers, including risk and uncertainty management, interpersonal and networking management, innovation and product development, and opportunity recognition.

## Contact Information

Center for Entrepreneurship (<http://entrepreneurship.wfu.edu/>)  
Reynolda Hall 230  
Phone 336-758-3153

## Programs

### Minor

- Entrepreneurship, Minor

### Courses

#### ENT 105. The Entrepreneurial Experience: From Mindset to Entrepreneurial Identity. (1 h)

An exploration and analysis of the entrepreneurial lifecycle from ideation, concept development, launching and building a company, and eventually exiting, with specific focus on developing an entrepreneurial mindset and forming an entrepreneurial identity. The course features guest speakers who have founded companies in various industries.

#### ENT 200. Foundations of Entrepreneurship: Identifying and Cultivating Valuable Ideas. (3 h)

Examines and cultivates the notion of creativity from the perspective of value creation, inquiry, opportunity recognition, and idea generation. Topics examined through writing and design assignments, group projects, and discussions include awareness, empathy, risk, ethics, self-agency, and social engagement with the express objective of identifying and creating valuable ideas. Provides an introduction to the practice of entrepreneurship and design thinking, along with the development of an entrepreneurial mindset.

#### ENT 201. Evidence-Based Entrepreneurship: Developing Validated Concepts. (3 h)

Examines how individuals use entrepreneurial skills to craft innovative responses to societal and market needs. Using customer discovery and other evidence-based entrepreneurial methods, students participate in the progression of ideas into validated concepts. P or C-ENT 200.

#### ENT 203. Writing for a Social Purpose. (3 h)

Combines writing, service learning, and entrepreneurship approaches in communication by partnering students with a local nonprofit organization to provide a range of writing solutions in print and online. Also listed as JOU 325. P- JOU 270 or POI.

#### ENT 205. Scaling the Entrepreneurial Venture: From Concept to Harvest. (3 h)

Explores the stage in the entrepreneurial lifecycle where validated concepts transition to established ventures. The course is designed to provide exposure to topics critical to success, such as how to scale the venture past early adopters to meet the needs of more mainstream customers. It covers key functional domains including entrepreneurial marketing, finance, fundraising, leadership, and strategy. P - ENT 201.

#### ENT 250. Communication in Entrepreneurial Settings. (3 h)

This course examines the contemporary workplace, including startup organizations, freelance work, and gig work. We examine how communication underpins organizational culture, teamwork, mentoring and networking, diversity programming and more. Reading and discussion are balanced with opportunities to engage and apply tools for workplace success. Also listed as COM 250.

#### ENT 301. Topics in Entrepreneurship. (1.5, 3 h)

Seminar and/or lecture courses in select topics related to entrepreneurship. May be repeated if course title differs.

#### ENT 302. Topics in Entrepreneurship. (1.5, 3 h)

Seminar and/or lecture courses in select topics related to entrepreneurship. May be repeated if course title differs.

**ENT 303. Topics in Entrepreneurship. (1.5, 3 h)**

Seminar and/or lecture courses in select topics related to entrepreneurship. May be repeated if course title differs.

**ENT 304. Topics in Entrepreneurship. (1.5, 3 h)**

Seminar and/or lecture courses in select topics related to entrepreneurship. May be repeated if course title differs.

**ENT 305. Topics in Entrepreneurship. (1.5, 3 h)**

Seminar and/or lecture courses in select topics related to entrepreneurship. May be repeated if course title differs.

**ENT 306. Topics in Entrepreneurship. (1.5, 3 h)**

Seminar and/or lecture courses in select topics related to entrepreneurship. May be repeated if course title differs.

**ENT 310. Arts Entrepreneurship. (3 h)**

Introduces entrepreneurial processes and practices in the visual arts, theater, dance, music, and creative writing. Seminar format includes encounters with arts entrepreneurs, investigation of case studies, and research in new and evolving models for creative application of entrepreneurial practices in the arts.

**ENT 312. Management in the Visual Arts. (3 h)**

Provides art students with the skills, experiences, and frameworks for understanding the role that the visual arts play within the national and international economy. Also listed as ART 297. P-Junior or senior standing and POI.

**ENT 313. Whole Person Creativity. (3 h)**

Interactive studio/seminar that introduces students to the concepts and practices of creativity, innovation, design, and sustainability. Through whole-person engagement, architectural design processes, and place-making studies, students explore the impact of human behaviors on all areas of life and society along a continuum of local to global.

**ENT 315. Nonprofit Arts and Education Entrepreneurship: Promotion of Latin-American and Latino Visual Culture. (3 h)**

Explores entrepreneurship in promoting Latin-American and U.S. Latino cultures through educational and artistic events and fundraisers on campuses and in the community. Students gain hands-on experience by assisting in the production of Wake Forest exhibitions, events promoting Latin-American and U.S. Latino heritage and culture, related community fundraisers, and nonprofit organizations.

**ENT 320. Social Entrepreneurship. (3 h)**

Interdisciplinary seminar that introduces the concepts of entrepreneurship with a focus on entrepreneurial activities that further the public good through the integration of core concepts of social and cultural values and ecological sustainability.

**ENT 321. Social Entrepreneurship and the Humanities: Innovation, Public Engagement, and Social Change. (3 h)**

Introduction to the role played by humanities in social entrepreneurship, exploring the premise that norms can be developed for the application of the humanities, and that the knowledge derived in this process can empower and be a tool in community-based engagement and social change. Course includes a social entrepreneurial project in the local community. Also listed as HMN 295.

**ENT 322. Religion, Poverty, and Social Entrepreneurship. (3 h)**

Interdisciplinary study of major themes in religion, poverty reduction, and social entrepreneurship. Focus and community emphasis may vary with instructor. Also listed as REL 344.

**ENT 323. Social Entrepreneurship Summer Program. (3 h)**

This trans-disciplinary, 4-week program explores the role of social entrepreneurship in society today and challenges students, through a rigorous and integrated curriculum to master the entrepreneurial process involved in furthering the public good through community-based engagement and social change. P-POI.

**ENT 326. Telling Women's Lives: Writing about Entrepreneurs, Activists, and Community Leaders. (3 h)**

This course will use an interdisciplinary approach to address fundamental issues of female leadership by examining recent developments in long- and short-form narratives about women (biography, essays, profiles) and employing journalistic tools to interview and write profiles of women entrepreneurs, activists, and community leaders. Also listed as WGS 326.

**ENT 330. Entrepreneurship for Scientists. (3 h)**

Introduces students to the routes by which scientific discoveries and new technologies find their way to the market place. Covers ideation, determining market potential, business planning, intellectual property, entrepreneurship ethics, venture capital, and venture incubation.

**ENT 335. Renewable Energy Entrepreneurship: Science, Policy, and Economics. (4 h)**

This team-taught course provides overviews of the most important renewable energy sources. Explores the science, policy and economic issues related to renewable energy and investigates the potential for new markets, new products, and new entrepreneurial opportunities in the marketplace. P - Junior standing and Div V requirements, or POI.

**ENT 350. Internships in Entrepreneurial Studies. (1.5, 3 h)**

Offers the opportunity to apply knowledge in an entrepreneurial for-profit or not-for-profit environment. Requirements include a course journal and a comprehensive report that showcase the student's specific achievements and analyze the quality of his or her experience. P - POI.

**ENT 351. Green Technologies: Science and Entrepreneurship. (2, 3 h)**

Introduces the science and entrepreneurship opportunities of select green technologies. Students learn in the fundamental science associated with energy use and renewable energy and selected green technologies. Students also learn the basics of starting a new business and develop a business plan to bring a "green product" to the market. P-CHM 341 or ENT 201 or POI.

**ENT 357. Bioinspiration and Biomimetics. (3 h)**

Explores the ways in which biological mechanisms can inspire new technologies, products, and businesses. The course combines basic biological and entrepreneurial principles. Also listed as BIO 357.

**ENT 380. America at Work. (3 h)**

Examines the American entrepreneurial spirit within the broader context of industrial, social, and economic change from the colonial period to the present and explores the social and cultural meanings attached to work and workers, owner and innovators, businesses and technologies, management and leadership. Also listed as HST 380. (CD)

**ENT 384. Design-Thinking and High Performance Teams. (3 h)**

In this experiential class, we study the evolution of high-performance teams in design-thinking environments. At its core, design thinking is an approach to innovative problem solving that balances art, science, and business perspectives in realistic and highly impactful ways. In this course we develop the ability to participate in and lead high-performance teams within a design-thinking environment. The course involves an action-learning project that applies the perspectives of anthropology, history, political science, communication, and psychology, among others, in solving a real-world problem. Also listed as BEM 384.

**ENT 391. Independent Study in Entrepreneurship. (1.5, 3 h)**

An independent project involving entrepreneurship or social enterprise carried out under the supervision of the faculty member. P - POI.

**ENT 392. Independent Study in Entrepreneurship. (1.5, 3 h)**

An independent project involving entrepreneurship or social enterprise carried out under the supervision of a faculty member. P - POI.

**ENT 394A. Student Entrepreneurship in Action. (1.5, 3 h)**

This course is built around the real-time challenges and learning that occur as the students in the class launch, run, build, and sell or transition their venture. Promotes intense rigorous intellectual exchange in a seminar setting in which all will not only participate in critical thinking and analysis, but also in problem solving and leadership. Course may be repeated for credit. P - POI.

**ENT 394B. Student Entrepreneurship in Action. (1.5, 3 h)**

This course is built around the real-time challenges and learning that occur as the students in the class launch, run, build, and sell or transition their venture. Promotes intense rigorous intellectual exchange in a seminar setting in which all will not only participate in critical thinking and analysis, but also in problem solving and leadership. Course may be repeated for credit. P - POI.

**ENT 399. Startup Lab. (3 h)**

Startup Lab is designed to help students take high potential ideas and, after learning best practices on evidence-based entrepreneurship, apply lean startup methodology to their own startup. Students will learn key aspects of building an early stage company such as how to make crucial early stage sales, how to build brand loyalty with early stage customers, key aspects of accounting, finance, and human resources that apply to startups, and how to lead a team. This is a practicum and much of the learning is application-oriented and focuses directly on the startup or the startup team. P-POI.

## Faculty

**John C. Whitaker Jr. Executive Director Center for Entrepreneurship, Professor of Practice, Entrepreneurship** Daniel Cohen

**Faculty Director Farr Professor of Innovation, Creativity and Entrepreneurship** Paul Pauca

**Merlo Presidential Chair in Communication and Entrepreneurship, Associate Professor** Rebecca Gill

**Visiting Assistant Professor** Gregory Pool, Rebecca Byer

**Research Professor in Entrepreneurship** Elizabeth Gatewood

**Adjunct Professor** Jennifer Bennett, Jonathan Clift, Anthony DiBianca, Drew Hancock, Roy Richards

**Core Faculty** William Conner (Professor of Biology), Michele Gillespie (Professor of History), Linda Howe (Associate Professor of Romance Languages), Ben King (Professor of Practice School of Business), Abdessadek Lachgar (Professor of Chemistry), Ananda Mitra (Professor of Communication), David Phillips (Associate Professor of Interdisciplinary Humanities), Robert Whaples (Professor of Economics), Ulrike Wiethaus (Professor of Religion and American Ethnic Studies)

## Entrepreneurship, Minor

### Requirements

The minor requires a minimum of 19 hours in core and elective courses.

Code	Title	Hours
ENT 105	The Entrepreneurial Experience: From Mindset to Entrepreneurial Identity	1

ENT 200	Foundations of Entrepreneurship: Identifying and Cultivating Valuable Ideas	3
ENT 201	Evidence-Based Entrepreneurship: Developing Validated Concepts	3
ENT 205	Scaling the Entrepreneurial Venture: From Concept to Harvest	3

Select nine hours from the following electives: \*

#### ENT Electives for the Minor

#### General Electives for the Minor

\* All students may fulfill three of their elective hours by taking the Summer Management Program (BUS 295). No more than six of the elective hours may be counted from a student's major. No more than six hours can be taken under the pass/fail option and used to meet the minor requirements. No more than six hours can be taken abroad.

Course plans will be made in consultation with the director of the minor. It is strongly suggested that interested students take ENT 105 by their sophomore year and note the prerequisites for ENT 201 and ENT 205.

### ENT Electives for the Minor

Code	Title	Hours
ENT 203	Writing for a Social Purpose	3
ENT 250	Communication in Entrepreneurial Settings	3
ENT 301	Topics in Entrepreneurship	1.5,3
ENT 302	Topics in Entrepreneurship	1.5,3
ENT 303	Topics in Entrepreneurship	1.5,3
ENT 304	Topics in Entrepreneurship	1.5,3
ENT 305	Topics in Entrepreneurship	1.5,3
ENT 306	Topics in Entrepreneurship	1.5,3
ENT 310	Arts Entrepreneurship	3
ENT 312	Management in the Visual Arts	3
ENT 313	Whole Person Creativity	3
ENT 315	Nonprofit Arts and Education Entrepreneurship: Promotion of Latin-American and Latino Visual Culture	3
ENT 320	Social Entrepreneurship	3
ENT 321	Social Entrepreneurship and the Humanities: Innovation, Public Engagement, and Social Change	3
ENT 322	Religion, Poverty, and Social Entrepreneurship	3
ENT 323	Social Entrepreneurship Summer Program	3
ENT 326	Telling Women's Lives: Writing about Entrepreneurs, Activists, and Community Leaders	3
ENT 330	Entrepreneurship for Scientists	3
ENT 335	Renewable Energy Entrepreneurship: Science, Policy, and Economics	4
ENT 350	Internships in Entrepreneurial Studies	1.5,3
ENT 351	Green Technologies: Science and Entrepreneurship	2,3
ENT 357	Bioinspiration and Biomimetics	3
ENT 380	America at Work	3
ENT 384	Design-Thinking and High Performance Teams	3



ENT 391	Independent Study in Entrepreneurship	1.5,3
ENT 392	Independent Study in Entrepreneurship	1.5,3
ENT 394A	Student Entrepreneurship in Action	1.5,3
ENT 394B	Student Entrepreneurship in Action	1.5,3
ENT 399	Startup Lab	3

## General Electives for the Minor

Code	Title	Hours
ACC 111	Introductory Financial Accounting	3
ANT 305	Museum Anthropology	3
ANT 342	Applied Anthropology	3
ART 121	Design Studio: Ethics and Aesthetics	3
ART 122	Design Studio: Visualization of Ideas	3
ART 215	Public Art	4
ART 297	Management in the Visual Arts	3
BEM 211	Organizational Behavior	3
BEM 221	Principles of Marketing	3
BEM 261	Legal Environment of Business	3
BEM 316	Leading in Nonprofit Sector	3
BEM 371	Strategic Management	3
BEM 372	Strategic Management in Entrepreneurial Firms	3
BEM 377	Entrepreneurship	3
BEM 382	Management in the Visual Arts	3
BEM 383	Seminar in Negotiations	3
BEM 384	Design-Thinking and High-Performance Teams	3
BIO 357	Bioinspiration and Biomimetics	3
BUS 295	Summer Management Program	8
COM 250	Communication in Entrepreneurial Settings	3
COM 262	Writing for Public Relations and Advertising	3
COM 315	Communication and Technology	3
COM 353	Persuasion	3
COM 370	Special Topics (when topic is Storytelling and the Entrepreneur )	1-3
CSC 111	Introduction to Computer Science	4
CSC 331	Software Engineering	3
CSC 332	Mobile and Pervasive Computing	3
CSC 361	Digital Media	3
CSC 385	Bioinformatics	3
ECN 205	Intermediate Microeconomics I	3
ENV 201	Environmental Issues	3
FRH 329	French for Business Communication	3
GER 330	German for Professional Purposes II	3
HMN 295	Social Entrepreneurship and the Humanities: Innovation, Public Engagement, and Social Change	3
HST 350	World Economic History: Globalization, Wealth and Poverty, 1500-Present	3
HST 380	America at Work	3
INS 154	Community Based Global Learning	3
INS 260	Seminar in Global Trade and Commerce Studies	3

JOU 325	Writing for a Social Purpose	3
JOU 350	Writing for Public Relations and Advertising	1.5,3
LIB 235	Research Methods for Entrepreneurs	1.5
PHI 161	Introduction to Bioethics	3
PHI 163	Environmental Ethics	3
PHI 367	Philosophical Theories in Bioethics	3
PHI 368	Concepts of Health & Disease	3
PHY 385	Bioinformatics	3
POL 238	Comparative Economic and Political Development	3
POL 239	State, Economy, and International Competitiveness	3
PSY 260	Social Psychology	3
PSY 268	Industrial/Organization Psychology	3
PSY 357	Cross-Cultural Psychology	3
PSY 374	Research in Judgment and Decision Making	3
REL 332	Religion and Public Engagement	3
REL 344	Religion, Poverty, and Social Entrepreneurship	3
SOC 362	Work, Conflict, and Change	3
SOC 363	Global Capitalism	3
SOC 365	Technology, Culture, and Change	3
SPA 387	Cultural Industries and Institutions in Spain and Spanish America	3
THE 259	Theater Management: Principles and Practices	3
WGS 326	Telling Women's Lives: Writing about Entrepreneurs, Activists, and Thought Leaders	3

## Environmental Program (ENV)

### Interdisciplinary Program

The Wake Forest Environmental Program offers Bachelor of Arts Degrees in Environmental Science and Environment and Sustainability Studies, and minors in Environmental Science and Environmental Studies. The Environmental Program provides an interdisciplinary approach to the study of human-environment interaction. The program seeks to identify and apply perspectives from biology, chemistry, physics, geography, government, economics, history, humanities, law, ethics, and anthropology to the human impact on the natural environment. The majors and minors are designed to prepare students for careers in the environmental sciences, law, public health, public policy, and public administration, and to develop attitudes and values consistent with a sustainable environmental future.

## Policies for the Majors and Minors and other Programs of Study

1. The Bachelor of Arts in Environment and Sustainability, regardless of track, cannot be used as a double major with Biology, Biochemistry and Molecular Biology, or Chemistry with a concentration in Biochemistry.
2. A Biology major can elect the minor in Environmental Studies. A Biology major can also elect the minor in Environmental Science,



however ENV 220/BIO 220 cannot be counted toward both the Biology major requirements and the Environmental Studies Minor.

3. Because of the number of shared courses, an Environment and Sustainability Studies major cannot declare the Biology minor.
4. Students can minor in both Biology and Environmental Science or Environmental Studies.

## Contact Information

Environmental Program (<http://college.wfu.edu/environment/>)

## Programs Majors

- Environment and Sustainability Studies, BA
- Environmental Science, BA

## Minors

- Environmental Science, Minor
- Environmental Studies, Minor

## Courses

### Environmental Program (ENV)

#### ENV 201. Environmental Issues. (3 h)

Topics include environmental literature, environmental history, human populations, resource management, pollution, global change, environmental activism and environmental ethics.

#### ENV 202. Environmental Solutions. (3 h)

Learn how to improve our environment by identifying and exploring innovative environmental solutions. Counts towards Environmental Minor requirements.

#### ENV 203. Leadership for Sustainability. (3 h)

Sustainability Ambassadors are student peer educators for sustainability. The mission of the Sustainability Ambassadors program is to support the development of sustainable behaviors among the student population at Wake Forest University. Through outreach activities, campaign development, event planning, sustainability assessments, and presentations, Sustainability Ambassadors are able to reach Wake students in a variety of settings. They help fulfill the Office's mission of empowering others to assume leadership roles in sustainability.

#### ENV 220. Introduction to Earth Science. (3 h)

Oceans, weather, climate, earthquakes, volcanoes, soil, and space all play important roles in our dynamic planet. Students will explore the lithosphere, hydrosphere, atmosphere, and biosphere, and gain a deeper understanding of how the Earth operates as a whole. Also listed as BIO 220. P-requires BIO 150, 150L, 160, and 160L if taken as BIO 220.

#### ENV 230. Environmental Ethics. (3 h)

Explores the complex relationships between ecosystems, cultures, and related moral imaginations. It reviews various ways in which humans have imagined the natural world and their ethical obligations toward it (if any).

#### ENV 301. Topics in Environmental Studies. (1-4 h)

Seminar and/or lecture courses in selected topics, some involving laboratory instruction. May be repeated if the course title differs.

#### ENV 302. Topics in Environmental Studies. (1-4 h)

Seminar and/or lecture courses in selected topics, some involving laboratory instruction. May be repeated if the course title differs.

#### ENV 303. Topics in Environmental Studies. (1-4 h)

Seminar and/or lecture courses in selected topics, some involving laboratory instruction. May be repeated if the course title differs.

#### ENV 304. Topics in Environmental Studies. (1-4 h)

Seminar and/or lecture courses in selected topics, some involving laboratory instruction. May be repeated if the course title differs.

#### ENV 305. Topics in Environmental Studies. (1-4 h)

Seminar and/or lecture courses in selected topics, some involving laboratory instruction. May be repeated if the course title differs.

#### ENV 306. Topics in Environmental Studies. (1-4 h)

Seminar and/or lecture courses in selected topics, some involving laboratory instruction. May be repeated if the course title differs.

#### ENV 391. Individual Study. (1.5 h)

A field study, internship, project or research investigation carried out under the supervision of a member of the environmental program faculty. Pass/fail or for a grade at the discretion of the instructor. Pass/fail is not an option if used as an elective for the environmental science or environmental studies minor.

#### ENV 392. Individual Study. (1.5 h)

#### ENV 394. Environmental Internship. (1-4 h)

Supervised internships with governmental agencies, nonprofit organizations and businesses.

#### ENV 395. Sustainability Lab/Clinic. (4 h)

Focuses on practical solutions to sustainability problems, and includes the use of makerspace, the fabrication lab, and the visualization lab.

## Faculty

#### Director:

Eric Stottlemeyer (English Department/Office of the Dean of the College)

#### Core Faculty:

Jim Curran (Biology Department)

Lucas Johnston (Department for the Study of Religions)

Miles Silman (Biology Department)

#### Affiliate Faculty:

E. Mark Curtis (Economics Department)

Courtney Di Vittorio (Department of Engineering)

Robert Erhardt (Mathematics and Statistics Department)

Meredith Farmer (English Department)

Sheri Flöge (Biology Department)

Andrius Galisanka (Department of Politics and International Affairs)

Frederick Harris (School of Business)

Rowie Kirby-Straker (Communication Department)

Abdou Lachgar (Department of Chemistry)

Michael Lamb (Interdisciplinary Humanities)

Jed Macosko (Physics Department)

Judith Madera (English Department)

Stan Meiburg (Sustainability Program)

Monique O'Connell (Department of History)

David Phillips (Interdisciplinary Humanities)

Paul Pauca (Computer Science Department)

Scott Schang (Law School)

Paul Thacker (Department of Anthropology)

Alessandra Von Burg (Communication Department)

Ron Von Burg (Communication Department)

Kyana Young (Department of Engineering)

# Environment and Sustainability Studies, BA

## Requirements

Requires 35 hours. These must include:

Code	Title	Hours
<b>Environment and Sustainability Core</b>		
ENV 201	Environmental Issues	3
ENV 203	Leadership for Sustainability	3
ENV 220	Introduction to Earth Science	3
BIO 150 & 150L	Biology I and Biology I Lab	4
BIO 160 & 160L	Biology II and Biology II Lab	4
<b>Co-Required Courses</b>		
CHM/PHY 120	Physics and Chemistry of the Environment	4
<b>Interdisciplinary Area Requirements</b>		
Natural Science Requirement		3-6
Social Science, Humanities, Policy, and Sustainable Design		12
Applied Sustainability		3-6

## Natural Science

Code	Title	Hours
BIO 225	Field Biology and Natural History	3
BIO 235	Genetics and Evolution	3
BIO 245	Comparative Animal Physiology	3
BIO 310	Community Ecology and Global Change	4
BIO 311	Ecology and Conservation Biology of Coral Reefs	4
BIO 313	Herpetology	4
BIO 315 & 315L	Population Genetics and Population Genetics Lab	3-4
BIO 316	Biology of Birds	4
BIO 317 & 317L	Plant Physiology and Development and Plant Physiology and Development Lab	3-4
BIO 323 & 323L	Animal Behavior and Animal Behavior Lab	3-4
BIO 330	Land and Natural Resource Management	3
BIO 332	Microbiology	4
BIO 335	Insect Biology	4
BIO 338 & 338L	Plant Diversity and Plant Diversity	3-4
BIO 340	Ecology	4
BIO 342	Oceanography	4
BIO 348 & 348L	Physiological Plant Ecology and Physiological Plant Ecology	3-4
BIO 349	Tropical Biodiversity of the Amazon and Andes	4
BIO 356	Ecology and Resource Management of Southeast Australia	4
BIO 357	Bioinspiration and Biomimetics	3

BIO 358 & 358L	Biogeography and Biogeography Lab	3-4
BIO 379	Introduction to Geographic Information Systems (GIS)	4
BIO 380	Biostatistics	3

## Social Science, Humanities, Policy, and Sustainable Design

Code	Title	Hours
<b>Social Science Electives</b>		
ANT 339	Culture and Nature: Introduction to Environmental Anthropology	3
ECN 241	Environmental and Natural Resource Economics	3
POL 210	Topics In United States Politics and Policy (when topic is Environmental Policy)	3
POL 281	Environmental Political Thought	3
<b>Humanities Electives</b>		
ART 121	Design Studio: Ethics and Aesthetics	3
ENG 341	Literature and the Environment	3
ENG 356	Literature of the Caribbean	3
ENV 230	Environmental Ethics	3
HMN 292	Environmentalism, the Humanities, and Gender	3
HMN 365	Humanity and Nature	1.5,3
HST 112	Big History: A History of the Cosmos and Humanity's Place In It	3
HST 350	World Economic History: Globalization, Wealth and Poverty, 1500-Present	3
HST 368	U.S. Environmental History	3
JOU 375	Special Topics in Journalism (when topic is Science Writing for the Public or Environmental Journalism )	1-3
REL 341	Religion and Ecology	3

## Applied Sustainability

Code	Title	Hours
ENT 335	Renewable Energy Entrepreneurship: Science, Policy, and Economics	4
ENT 351	Green Technologies: Science and Entrepreneurship	2,3
ENV 394	Environmental Internship	1-4
ENV 395	Sustainability Lab/Clinic	4

## Environmental Science, BA

## Requirements

Requires 38 hours. These must include:

Code	Title	Hours
<b>Environment and Sustainability Core</b>		
ENV 201	Environmental Issues	3
ENV 203	Leadership for Sustainability	3

ENV 220	Introduction to Earth Science	3
BIO 150 & 150L	Biology I and Biology I Lab	4
BIO 160 & 160L	Biology II and Biology II Lab	4

**Co-Required Courses**

CHM 111 & 111L	College Chemistry I and College Chemistry I Lab	4
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One additional quantitative methods course \*

**Interdisciplinary Area Requirements**

Natural Science	9
Social Science, Humanities, Policy, and Sustainable Design	9
Applied Sustainability	3-6

\* Course(s) of the student's choosing must be approved by the program co-directors.

## Natural Science

Code	Title	Hours
BIO 225	Field Biology and Natural History	3
BIO 235	Genetics and Evolution	3
BIO 245	Comparative Animal Physiology	3
BIO 310	Community Ecology and Global Change	4
BIO 311	Ecology and Conservation Biology of Coral Reefs	4
BIO 313	Herpetology	4
BIO 315 & 315L	Population Genetics and Population Genetics Lab	3-4
BIO 316	Biology of Birds	4
BIO 317 & 317L	Plant Physiology and Development and Plant Physiology and Development Lab	3-4
BIO 323 & 323L	Animal Behavior and Animal Behavior Lab	3-4
BIO 330	Land and Natural Resource Management	3
BIO 332	Microbiology	4
BIO 335	Insect Biology	4
BIO 338 & 338L	Plant Diversity and Plant Diversity	3-4
BIO 340	Ecology	4
BIO 342	Oceanography	4
BIO 348 & 348L	Physiological Plant Ecology and Physiological Plant Ecology	3-4
BIO 349	Tropical Biodiversity of the Amazon and Andes	4
BIO 356	Ecology and Resource Management of Southeast Australia	4
BIO 357	Bioinspiration and Biomimetics	3
BIO 358 & 358L	Biogeography and Biogeography Lab	3-4
BIO 379	Introduction to Geographic Information Systems (GIS)	4
BIO 380	Biostatistics	3

## Social Science, Humanities, Policy, and Sustainable Design

Code	Title	Hours
<b>Social Science Electives</b>		
ANT 339	Culture and Nature: Introduction to Environmental Anthropology	3
ECN 241	Environmental and Natural Resource Economics	3
POL 210	Topics In United States Politics and Policy (when topic is Environmental Policy)	3
POL 281	Environmental Political Thought	3
<b>Humanities Electives</b>		
ART 121	Design Studio: Ethics and Aesthetics	3
ENG 341	Literature and the Environment	3
ENG 356	Literature of the Caribbean	3
ENV 230	Environmental Ethics	3
HMN 292	Environmentalism, the Humanities, and Gender	3
HMN 365	Humanity and Nature	1.5,3
HST 112	Big History: A History of the Cosmos and Humanity's Place In It	3
HST 350	World Economic History: Globalization, Wealth and Poverty, 1500-Present	3
HST 368	U.S. Environmental History	3
JOU 375	Special Topics in Journalism (when topic is Science Writing for the Public or Environmental Journalism)	1-3
REL 341	Religion and Ecology	3

## Applied Sustainability

Code	Title	Hours
ENT 335	Renewable Energy Entrepreneurship: Science, Policy, and Economics	4
ENT 351	Green Technologies: Science and Entrepreneurship	2,3
ENV 394	Environmental Internship	1-4
ENV 395	Sustainability Lab/Clinic	4

## Environmental Science, Minor Requirements

A total of 18 hours, including 11 hours of elective courses, is required for the minor.

Code	Title	Hours
<b>Required Minor Courses</b>		
ENV 201	Environmental Issues	3
ENV 220	Introduction to Earth Science	3
CHM/PHY 120	Physics and Chemistry of the Environment	4
Select 8 hours of electives		8

Additional elective courses may have been approved since publication of this bulletin. The program director maintains a complete list of all

approved elective courses. For course descriptions, see the relevant department's listings in this bulletin.

## Electives for Environmental Science Minor

Code	Title	Hours
BIO 306	Topics in Biology	1-4
BIO 310	Community Ecology and Global Change	4
BIO 311	Ecology and Conservation Biology of Coral Reefs	4
BIO 330	Land and Natural Resource Management	3
BIO 340	Ecology	4
BIO 341 & 341L	Marine Biology and Marine Biology	3-4
BIO 348 & 348L	Physiological Plant Ecology and Physiological Plant Ecology	3-4
BIO 349	Tropical Biodiversity of the Amazon and Andes	4
BIO 356	Ecology and Resource Management of Southeast Australia	4
BIO 379	Introduction to Geographic Information Systems (GIS)	4
BIO 380	Biostatistics	3
CHM 334	Chemical Analysis	4
CHM 351	Special Topics in Chemistry (Green Technologies: Science and Entrepreneurship)	3
CHM 351	Special Topics in Chemistry (Chemistry of Food)	3
CHM 391	Undergraduate Research	1-3
CHM 392	Undergraduate Research	1-3
ECN 241	Environmental and Natural Resource Economics	3
ENT 335	Renewable Energy Entrepreneurship: Science, Policy, and Economics	4
ENT 351	Green Technologies: Science and Entrepreneurship	2,3
ENV 202	Environmental Solutions	3
ENV 203	Leadership for Sustainability	3
HMN 365	Humanity and Nature	3
STA 112	Introduction to Regression and Data Science	3

## Environmental Studies, Minor

### Requirements

A total of 18 hours is required for the minor.

Code	Title	Hours
ENV 201	Environmental Issues	3
Select one course from each of the following:		15
I. Social Sciences		
II. Natural and Physical Sciences		
III. Humanities		

## I. Social Sciences

Code	Title	Hours
ANT 339	Culture and Nature: Introduction to Environmental Anthropology	3
ECN 241	Environmental and Natural Resource Economics	3
ENV 202	Environmental Solutions	3
ENV 301	Topics in Environmental Studies (Environmental Policy and Law)	1-4
POL 281	Environmental Political Thought	3

## II. Natural and Physical Sciences

Code	Title	Hours
BIO 306	Topics in Biology	3
BIO 310	Community Ecology and Global Change	4
BIO 311	Ecology and Conservation Biology of Coral Reefs	4
BIO 340	Ecology	4
BIO 341 & 341L	Marine Biology and Marine Biology	3-4
BIO 348 & 348L	Physiological Plant Ecology and Physiological Plant Ecology	3-4
BIO 349	Tropical Biodiversity of the Amazon and Andes	4
BIO 356	Ecology and Resource Management of Southeast Australia	4
BIO 379	Introduction to Geographic Information Systems (GIS)	4
BIO 380	Biostatistics	3
CHM/PHY 120	Physics and Chemistry of the Environment	4
ENV 220	Introduction to Earth Science	3
STA 112	Introduction to Regression and Data Science	3

## III. Humanities

Code	Title	Hours
CRW 387	Advanced Literary Nonfiction Workshop (Environmental Essay)	3
ENG 341	Literature and the Environment	3
ENG 356	Literature of the Caribbean	3
HMN 292	Environmentalism, the Humanities, and Gender	3
HMN 365	Humanity and Nature	3
HST 112	Big History: A History of the Cosmos and Humanity's Place In It	3
REL 341	Religion and Ecology	3

The following courses can serve as electives for the environmental studies minor. Additional courses may have been approved since the publication of this bulletin. The program director maintains a complete list of all approved courses. For course descriptions, see the relevant department's listings in this bulletin.

Code	Title	Hours
ANT 339	Culture and Nature: Introduction to Environmental Anthropology	3
BIO 304	Topics in Biology (Land Use and Policy)	1-4
BIO 306	Topics in Biology (Geographical Information Systems)	3
BIO 310	Community Ecology and Global Change	4
BIO 330	Land and Natural Resource Management	3
BIO 340	Ecology	4
BIO 341 & 341L	Marine Biology and Marine Biology	3-4
BIO 348 & 348L	Physiological Plant Ecology and Physiological Plant Ecology	3-4
BIO 349	Tropical Biodiversity of the Amazon and Andes	4
BIO 356	Ecology and Resource Management of Southeast Australia	4
BIO 380	Biostatistics	3
CHM 334	Chemical Analysis	4
CHM 351	Special Topics in Chemistry (Green Technologies: Science and Entrepreneurship)	3
CHM 351	Special Topics in Chemistry (Chemistry of Food)	3
PHY/CHM 120	Physics and Chemistry of Environment	4
COM 345	Rhetoric of Science and Technology	3
CRW 387	Advanced Literary Nonfiction Workshop	3
ECN 241	Environmental and Natural Resource Economics	3
ENG 341	Literature and the Environment	3
ENG 356	Literature of the Caribbean	3
ENT 335	Renewable Energy Entrepreneurship: Science, Policy, and Economics	4
ENT 351	Green Technologies: Science and Entrepreneurship	2,3
ENV 203	Leadership for Sustainability	3
ENV 301	Topics in Environmental Studies	1-4
ENV 302	Topics in Environmental Studies	1-4
ENV 303	Topics in Environmental Studies	1-4
ENV 304	Topics in Environmental Studies	1-4
ENV 305	Topics in Environmental Studies	1-4
ENV 306	Topics in Environmental Studies	1-4
ENV 391	Individual Study	1.5
ENV 392	Individual Study	1.5
ENV 394	Environmental Internship	1-4
HMN 365	Humanity and Nature	3
HST 112	Big History: A History of the Cosmos and Humanity's Place In It	3
POL 281	Environmental Political Thought	3
REL 341	Religion and Ecology	3

## Film and Media Studies (FLM)

Interdisciplinary Minor

Film and media studies offers an interdisciplinary approach to the study of film through a body of courses that exposes students to the cultural, political, and social implications of this art form. Courses in the minor provide students with the critical tools necessary for both evaluating and producing film texts, and they prepare qualified students to choose critical and/or creative paths for further study or toward a profession.

## Contact Information

Film and Media Studies (<http://college.wfu.edu/filmstudies/>)

## Programs

- Film and Media Studies, Minor

## Courses

### Film Studies (FLM)

#### FLM 101. Internship in Film and Media Studies I. (1.5-3 h)

Individual internships in film studies, to be approved, supervised, and evaluated by an appropriate member of the film studies faculty. The nature and extent of the internship will determine whether both sections can be taken simultaneously. Pass/fail only. P-POI.

#### FLM 102. Internship in Film and Media Studies II. (1.5-3 h)

Individual internships in film studies, to be approved, supervised, and evaluated by an appropriate member of the film studies faculty. The nature and extent of the internship will determine whether both sections can be taken simultaneously. Pass/fail only. P-POI.

#### FLM 201. Film & Media Studies Practicum. (1.5-3 h)

Practicum in film and media studies, to be approved, supervised, and evaluated by an appropriate member of the film studies faculty. May be repeated for up to six hours. Pass/fail only.

#### FLM 286. Individual Study in Film and Media Studies. (1.5-3 h)

Directed study in an area of interest to be approved and supervised by a faculty adviser. P-POI.

#### FLM 390. Special Topics in Film and Media Studies. (1.5-3 h)

Selected topics in film studies. May be repeated for credit if topic varies.

## Faculty

**Director, Professor of Communication** Woodrow Hood

#### Core Faculty

Mary M. Dalton  
Anne E. Hardcastle  
Raisur Rahman  
Andy Rodekohr

#### Affiliated Faculty

Saylor Breckenridge  
Cagney Gentry  
Molly Knight  
Anadra Mitra  
Thomas Southerland  
Joel Tauber

#### Teaching Staff

Steve Jarrett



## Film and Media Studies, Minor Requirements

A minor in film and media studies requires a minimum of 18 hours of approved courses. Candidates for the minor must complete:

Code	Title	Hours
<b>Film &amp; Media Studies Required Courses</b>		
COM 120	Introduction to Film and Media Aesthetics	3
COM 320	Media Theory and Criticism	3
<b>Film &amp; Media Studies Electives</b>		
Select one Film & Media Studies Electives in International Cinema		3
Select one Film & Media Studies Electives in Production		3
Select two General Film & Media Studies Electives		6

A maximum of three hours of internship credit may be counted towards the minor.

Additional elective courses may have been approved since publication of this bulletin. The program director maintains a complete list of all approved elective courses. For course descriptions, see the relevant department's listings in this publication.

## Film & Media Studies Electives in International Cinema

Code	Title	Hours
ART 261	Topics in Film History (when topic relates to international cinema)	3
ART 396	Art History Seminar (when topic relates to international cinema)	4
COM 312	Film History to 1945	3
COM 313	Film History Since 1945	3
COM 370	Special Topics (when topic relates to international cinema)	3
EAL 252	Chinese Cinemas	3
EAL 253	Japanese Film: Themes and Methods	3
EAL 285	Contemporary East Asian Cinema	3
FRH 360	Cinema and Society	3
FRH 361	Special Topics in French and Francophone Film Studies	3
GES 335	German Film	3
GES 336	Special Topics in German Film	3
HST 385	History through Film: Bollywood and the Making of Modern India	3
IAS 325	Italian Neorealism in Films and Novels	3
ITA 326	Comedy in Italian Cinema	3
ITA 327	Modern Italian Cinema	3
SPA 313	Lights, Camera, ¡Acción!. Cinema and Culture in the Spanish-Speaking World	3
SPA 349	Great Authors and Directors (when topic relates to film studies)	1.5-3
SPA 351	Cinema and Society (May be repeated for credit when focus changes)	3

## Film & Media Studies Electives in Production

Code	Title	Hours
ART 114	Introduction to Film and Video Art	3
ART 214	Film and Video Art: Site Specific	4
ART 224	Film and Video Art: Cyberspace	4
ART 228	Film and Video Art: Theatre Works	4
COM 247	Media Production I	3
COM 309	Visual Storytelling	3
COM 310	Media Production II	3
COM 316	Screenwriting	3
COM 325	On Camera Performance	3
COM 326	Advanced Screenwriting	3

## General Film & Media Studies Electives

Code	Title	Hours
ART 260	Classics of World Cinema	3
ART 261	Topics in Film History	3
ART 396	Art History Seminar (when topic is film related)	4
COM 312	Film History to 1945	3
COM 313	Film History Since 1945	3
COM 318	Culture and Sitcom	3
COM 370	Special Topics (when topic relates to film studies)	1-3
ENG 373	Literature and Film	3
FLM 101 & FLM 102	Internship in Film and Media Studies I and Internship in Film and Media Studies II	3
FLM 286	Individual Study in Film and Media Studies	1.5-3
FLM 390	Special Topics in Film and Media Studies	1.5-3
HMN 290	The Humanities through Film, Literature and Media	3
SOC 366	Sociological Analysis of Film	3

## French Studies (FRH)

The department offers programs leading to a major and a minor in French Studies and a concentration in French for Business. The requirements for completion of each degree program are those in effect in the bulletin year when the declaration of the major, minor, and concentration occurs.

**All majors, minors, and concentration students** are strongly urged to take advantage of the department's study abroad programs.

## Semester in France

The department sponsors a semester in Dijon, France, the site of a well-established French university. Students go as a group in the fall semester, accompanied by a departmental faculty member. Majors in all disciplines are eligible. Juniors are given preference, but well-qualified sophomores are also considered. Applicants should have completed the basic foreign language requirement (FRH 212, FRH 213, FRH 214, or equivalent), or should do so before going to Dijon. They are encouraged—but not required—to take one course or more above the level, preferably FRH 319.

Students are placed in language courses according to their level of ability in French, as ascertained by a test given at the Centre

International d'Études Françaises at the Université de Bourgogne in Dijon. Courses are taught by local French professors and by the resident director, who also supervises academic, residential, and extracurricular affairs.

Code	Title	Hours
FRH 350	Studies in French Language and Culture	6
FRH 351	Advanced Oral and Written French	4
FRH 352	Contemporary France	3
FRH 353	Studies in French Art	2

## Summer in France

The department offers a nine-credit, six-week immersion program in Tours, France. Students at the intermediate level can complete Wake Forest's basic language requirement by taking intensive intermediate French (6 credit hours) concurrently with FRH 212 (3 hours). More advanced students can earn credit toward the major or minor in French by completing intensive advanced intermediate conversation and grammar (6 hours) and FRH 216 (3 hours); this program includes weekly lectures by faculty specializing in history, gastronomy, business, political science, or literature. The intensive language courses are taught by professors at the Institut de Touraine; FRH 212 and FRH 216 are taught by the Wake Forest professor, who also serves as the faculty director for the group. The program includes excursions to sites of historical and cultural interest and the opportunity to participate in sports and cultural activities organized by the Institut de Touraine.

## Contact Information

Department of French Studies (<http://college.wfu.edu/french/>)  
Greene Hall 323, Box 7566  
Phone 336-758-5487

## Programs

### Major

- French Studies, B.A.

### Minor

- French Studies, Minor

## Concentration

- French for Business, Concentration

## Courses

### French Studies (FRH)

#### FRH 111. Elementary French. (3 h)

The first course in a two-semester sequence designed to help students to understand and speak French and also learn to read and write French at the elementary level.

#### FRH 112. Elementary French. (3 h)

The second course in a two-semester sequence designed to help students to understand and speak French and also learn to read and write French at the elementary level. P-FRH 111.

#### FRH 113. Intensive Elementary French. (4 h)

Review of the material from 111-112 in one semester, intended for students whose preparation for 153 is inadequate. Credit not given for both 113 and 111 or 112. Offered in the fall semester only. By placement or faculty recommendation.

#### FRH 153. Intermediate French. (4 h)

Intermediate-level course covering the structure of the language, developing students' reading, writing, and conversation skills and preparing them for oral and written discussion of readings in French 212 and 213. Note that 153 and other 153 marked courses (153F, 154) are mutually exclusive. P-FRH 111 and FRH 112, or 113, or placement.

#### FRH 154. Accelerated Intermediate French. (3 h)

Intensive, intermediate-level course intended for students with a stronger background than required of 153 students. It offers the opportunity to develop further their reading, writing, and conversation skills and prepare them for oral and written discussion of readings in French 212 and 213. Offered in the fall semester. P-POI or placement.

#### FRH 196. French Across the Curriculum. (1.5 h)

Coursework in French done as an adjunct to specially designated courses throughout the college curriculum. May be taken for grade or Pass/Fail. P-POI.

#### FRH 198. Internship in French Language. (1.5, 3 h)

A French-language project taken under faculty supervision in conjunction with an off-campus service commitment or internship. Includes, but is not limited to, vocabulary building, keeping a journal, and reading professional material. Pass/Fail only. P-POD.

#### FRH 199. Service Learning in French Language. (1.5 h)

Experiential learning that links classroom instruction and community service done as an adjunct to specially-designated courses throughout the French curriculum. Pass/Fail only. May be repeated for credit. P-POI.

#### FRH 212. Exploring the French and Francophone World. (3 h)

Explores significant cultural expressions from the French and Francophone world. Emphasizes both the development of competence in speaking, reading and writing French, and understanding how particular French-speaking societies have defined themselves. Credit allowed for only one: FRH 212, FRH 213, or FRH 214. P-FRH 153 or equivalent.

#### FRH 213. Encounters: French and Francophone Literature and Culture. (3 h)

Encounters with significant literary expressions from the French-speaking world. Emphasizes the advancement of competence in speaking, reading and writing, and the analysis of literature in its cultural contexts. Credit allowed for only one: FRH 212, FRH 213, or FRH 214. P-FRH 153 or equivalent.

#### FRH 214. Encounters: French and Francophone Literature and Culture (Honors). (3 h)

Encounters with significant literary expressions from the French-speaking world. Emphasizes the advancement of competence in speaking, reading and writing, and the analysis of literature in its cultural contexts. Coursework in the honors sections focuses more intently on written and oral expression and on reading strategies. Intended for students with a strong background in French. Credit allowed for only one: FRH 212, FRH 213, or FRH 214. P-Placement or POI.

#### FRH 216. Studies in French and Francophone Literature and Culture. (3 h)

Study of the ways in which a given theme appears in a selection of literary and other cultural works in French. Emphasis on reading and discussion of selected texts. Specific thematic focus changes every semester. May be repeated once for credit when topics vary. Required for the major and minor. P-FRH 212 or 213 or 214; or POI. (CD)

**FRH 315. Introduction to French and Francophone Studies. (3 h)**

Orientation in French and francophone cultures through their historical development and their various forms. Includes the study of literary, historical, and social texts, and possibly films, art, and music. Required for the major and minor. Offered only once each academic year. (A student taking 350 as part of the Dijon program would receive credit for this course. Please see the description of the Dijon program for details.) P-FRH 200-level course or equivalent. (CD)

**FRH 319. Composition and Review of Grammar. (4 h)**

Systematic review of the fundamental principles of comparative grammar, with practical training in writing idiomatic French. Required for the major and minor. P-FRH 200-level course or equivalent.

**FRH 320. French Conversation. (3 h)**

A language course based on cultural materials. Designed to perfect aural skills and oral proficiency by systematically increasing vocabulary and reinforcing command of specific grammatical points. Short written works are assigned. Exclusively for second-language learners. P-FRH 200-level course or equivalent.

**FRH 321. Introduction to Translation. (3 h)**

Introduction to translation strategies through theory and practice. Emphasis is placed on translation of a broad variety of texts, including different literary and journalistic modes. Attention is given to accuracy in vocabulary, structures, forms, and to cultural concerns. P-FRH 319 or POI.

**FRH 322. French Phonetics. (3 h)**

Study of the principles of standard French pronunciation, with emphasis on their practical application as well as on their theoretical basis. P-POI.

**FRH 323. Advanced Grammar and Stylistics. (3 h)**

Review and application of grammatical structures for the refinement of writing techniques. Emphasis is on the use of French in a variety of discourse types. Attention is given to accuracy and fluency of usage in the written language. P-FRH 319 or POI.

**FRH 329. French for Business Communication. (3 h)**

Introduces the use of French in everyday professional interactions. Emphasizes oral and written practices, reading, and French business culture, as well as the job search and cross-cultural awareness. Exclusively for second-language learners. P - FRH 200 level course or equivalent.

**FRH 330. French for Management. (3 h)**

Explores oral and written French communication and develops intercultural skills in areas such as human resources, entrepreneurship, and marketing through case studies and current events. P-FRH 319, 329, or POI.

**FRH 341. Rise of French. (3 h)**

The development of French from an early Romance dialect to a world language. Study of ongoing changes in the language's sounds, grammar, and vocabulary system within its historical and cultural context. P-FRH 319 or POI.

**FRH 342. Structure of French. (3 h)**

Analysis of linguistic features of French including syntax, phonology, and morphology. P-FRH 319 or POI.

**FRH 343. Modern French. (3 h)**

Study of the features of contemporary French including colloquial French contrasting grammar, vocabulary, and pronunciation with standard forms. P-FRH 319 or POI.

**FRH 345. Language and Society. (3 h)**

Introduction to sociolinguistic issues relating to the French language and its role in societies around the world. P-FRH 319 or POI.

**FRH 350. Studies in French Language and Culture. (6 h)**

Familiarization with the language and culture of France and its people. Study of French civilization, practice in writing, participation in French family life, lectures on selected topics, and excursions to points of historical and cultural significance. Satisfies FRH 315 requirement for major or minor. Offered in Dijon. Grade mode only.

**FRH 351. Advanced Oral and Written French. (4 h)**

Study of grammar, composition, pronunciation, and phonetics, with extensive practice in oral and written French. Offered in Dijon. Grade mode only.

**FRH 352. Contemporary France. (3 h)**

Study of present-day France, including aspects of geography and consideration of social, political, and educational factors in French life today. Offered in Dijon.

**FRH 353. Studies in French Art. (2 h)**

Lectures and field trips in French painting, sculpture, and architecture, concentrating on the 19th and 20th centuries. Offered in Dijon.

**FRH 360. Cinema and Society. (3 h)**

Study of French and Francophone cultures through cinema. Readings and films may include film as artifact, film theory, and film history. P-FRH 216, 315 or POI. (CD)

**FRH 361. Special Topics in French and Francophone Film Studies. (3 h)**

In-depth study of particular aspects of French and/or francophone cinema. Topics may include film adaptations of literary works, cinematographic expressions of social or political issues, selected filmmakers, theories, genres, historical periods, or cinematographic trends. May be repeated for credit when topics vary. P-FRH 360 or POI.

**FRH 363. Trends in French and Francophone Poetry. (3 h)**

Study of the development of the poetic genre with analysis and interpretation of works from each period. P-FRH 216, 315 or POI.

**FRH 364. French and Francophone Prose Fiction. (3 h)**

A broad survey of prose fiction in French, with critical study of representative works from a variety of periods. P-FRH 216, 315 or POI.

**FRH 365. French and Francophone Drama. (3 h)**

Study of the chief trends in dramatic art in French, with reading and discussion of representative plays from selected periods. P-FRH 216, 315 or POI.

**FRH 370. Seminar in French and Francophone Studies. (3 h)**

In-depth study of particular aspects of selected literary and cultural works from different genres and/or periods. A capstone course for third- and fourth-year students only. Required for major. May be repeated for credit when topics vary. P-FRH 216, 315 or POI. (CD)

**FRH 374. Topics in French and Francophone Culture. (3 h)**

Study of selected topics in French and/or francophone culture. Works will be drawn from different fields (sociology, politics, art, history, music, cinema) and may include journalistic texts, films, historical and other cultural documents. May be repeated for credit when topics vary. P-FRH 216, 315 or POI.

**FRH 375. Special Topics in French and Francophone Literature. (3 h)**

Selected themes and approaches to French and francophone literature transcending boundaries of time and genre. May be repeated for credit when topics vary. P-FRH 216, 315 or POI.

**FRH 381. French Independent Study. (1.5-3 h)**

P-POD.

**FRH 382. Internship in French Studies. (1.5, 3 h)**

Individual internships in a bilingual business or professional setting, to be approved, supervised, and evaluated by an appropriate faculty adviser. Pass/Fail only. P-POD.

**FRH 390. Directed Reading. (1.5 h)**

Required for departmental honors in French Studies.

**FRH 391. Directed Research. (3 h)**

Extensive reading and/or research to meet individual needs. Required for departmental honors in French Studies. P-POD.

## Faculty

**Chair** Kendall B. Tarte

**Professors** Stephen J. Murphy, Kendall B. Tarte

**Associate Professor** Stéphanie Pellet

**Assistant Professors** Guillaume Coly, Ryan Schroth, Amanda S. Vincent

**Teaching Professor** Elizabeth Mazza Anthony

**Professor of the Practice** Véronique M. McNelly

**Associate Teaching Professor** Corinne D. Mann

## French Studies, B.A.

### Requirements

Requires a minimum of 28 hours of French courses numbered above FRH 214.

Code	Title	Hours
<b>Required Major Courses</b>		
FRH 216	Studies in French and Francophone Literature and Culture	3
FRH 315	Introduction to French and Francophone Studies	3
Or		
FRH 350	Studies in French Language and Culture (Offered in Dijon)	
FRH 319	Composition and Review of Grammar	4
FRH 370	Seminar in French and Francophone Studies	3
Select one of the following genre courses:		
FRH 363	Trends in French and Francophone Poetry	
FRH 364	French and Francophone Prose Fiction	
FRH 365	French and Francophone Drama	
Select four other courses		

Students must achieve at least a C grade in FRH 319 and a GPA of 2.0 in the major. FRH 319 must be taken at Wake Forest.

### Honors

The honors designation in French Studies is a recognition of outstanding scholarship in the field, as evidenced by academic achievement, critical thinking, and intellectual initiative. Highly qualified majors selected by the French Studies faculty are invited to participate in the honors program, which candidates undertake in addition to the requirements for the major.

The honors program requires completion of:

Code	Title	Hours
FRH 390	Directed Reading	1.5
FRH 391	Directed Research	3

Directed Reading, normally taken during the fall semester of the student's final year, includes reading and discussion of a number of texts on the selected topic, and a written exam covering these texts. At the end of fall semester, the student submits an annotated bibliography and an abstract of the honors thesis. Directed Research, taken during the student's final semester, consists of writing the thesis following a schedule established by the director and the student. At the end of this course, the honors student defends the thesis orally before appropriate faculty who collectively may confer honors.

## French Studies, Minor

### Requirements

Requires a minimum of 18 hours of French courses numbered above FRH 214.

Code	Title	Hours
<b>Required Minor Courses</b>		
FRH 216	Studies in French and Francophone Literature and Culture	3
FRH 315	Introduction to French and Francophone Studies	3
Or		
FRH 350	Studies in French Language and Culture (Offered in Dijon)	
FRH 319	Composition and Review of Grammar	4
Select three other courses		

Students must achieve at least a C grade in FRH 319 and a GPA of 2.0 in the minor. FRH 319 must be taken at Wake Forest. Some courses are not offered every semester; students should plan ahead in order to fulfill all requirements.

## French for Business, Concentration

### Requirements

The concentration requires the following:

Code	Title	Hours
FRH 319	Composition and Review of Grammar	4
FRH 321	Introduction to Translation	3
FRH 329	French for Business Communication	3
FRH 330	French for Management	3

Select one additional course in French above FRH 214

## German and Russian (GER/RUS)

The Department's aim is to guide students to proficiency in the traditional four skills of language acquisition (speaking, aural comprehension, reading and writing), and to introduce them to the broad arena of culture, including literature, arts, history, and politics. Our strong proficiency based methods of teaching in tandem with the exceptional opportunities for study abroad enable our students to achieve a higher than average level of sophistication in all of these areas.

An integral part of the mission of this department is to encourage as many majors, minors, and other interested students as possible to study abroad. We believe that study abroad in concert with their on-campus exposure to German and Russian studies assists them in thinking more objectively about American culture and language from a distanced perspective and consequently enables them to examine their own attitudes and beliefs more objectively.

In addition, the university's goal of preparing its students for their professional life is certainly enhanced by familiarity with, and close scrutiny of, foreign cultures, attitudes, languages, and economies in light of contemporary emphasis on global understanding and interaction.

## Certification

German majors are required (and German minors are strongly encouraged) to take the Zertifikat Deutsch (ZD) examination in their last semester of their senior year. The Wirtschaftsdeutsch als Fremdsprache (WiDaF) is offered at the end of Business German II, GER 330.

## Study Abroad

German majors and minors are encouraged to study abroad for at least one semester with IES (Institute for the International Education of Students) in Freiburg, Berlin or Vienna; for a summer immersion course in Jena, at the Flow House in Vienna, Austria, or at the Goethe Institute in Germany. Students may also elect to participate in an internship (3h, pass/fail) with any of the three IES study abroad programs.

## Scholarships

The department awards several W.D. Sanders scholarships for study abroad every year. Deadline is the Monday following Thanksgiving break, and students interested in IES or Goethe Institute study are invited to apply.

## GER 100/GES 100. German Pre-Orientation Tour

(Audit/1h) One-week tour for entering freshmen, Vienna Austria. Students and faculty stay at the Wake Forest Flow House. Tour includes concerts, museums, palaces and historic walking tours in the city as well as visits to the surrounding countryside and a day trip to the Abbey at Melk on the Danube. All student participants must sign up for GER 100 either as an audit or for credit. In order to receive the one hour of credit, the student must either

1. register for GER 111, GER 112, GER 113, GER 153, GER 210 or GER 212 subsequent to taking the tour or
2. complete a short paper analyzing one of the cultural events or excursions offered.

The credit will count towards the German (GER) or German Studies (GES) major or minor. Pass/Fail only.

## Study Abroad

Russian majors and minors are encouraged to study abroad for at least one semester. The university is associated with several programs in St. Petersburg and Moscow. Visit the Center for Global Programs and Studies for more information.

## Scholarships

Students may apply for the Lowell and Anne Tillett Scholarship Fund for study abroad. Scholarships are also available from the Center for Global Programs and Studies.

## Semester in Vienna

Code	Title	Hours
GER 110	Intensive Elementary German	4
GER 150	Intermediate German	4
GER 214	Masterpieces of Austrian Literature	3
GES 341	Austrian Literature in Translation	3
GES 350	Fin de Siècle Vienna	3

## Internships (GER 322)

### Winston-Salem, Forsyth County Schools

Under faculty direction, a student mentors local German students at the middle or high school level. The intern may tutor students directly or assist in structuring and coordinating German language activities or events as the head classroom teacher requests. Course requirements include but are not limited to:

1. a journal including a general description of the student's responsibilities,
2. a supporting portfolio of teaching materials along with summaries of activities and events,
3. regular consultation with Wake Forest faculty adviser in German,
4. a reflective overview composed at the end of the internship, and
5. an evaluation supplied by the head teacher at the end of the internship.

### Old Salem, North Carolina (1.5 h)

Under faculty direction, the student serves in the Old Salem Archive as a German language specialist, translating documents from German into English. Course requirements include but are not limited to:

1. faculty evaluation of work completed,
2. a portfolio of copies of translated work,
3. regular consultation with a Wake Forest faculty mentor in German,
4. an evaluation by an administrator of the Old Salem Archive.

### German Lab Assistant (1.5 h)

Lab assistant for elementary German classes.

## Pass/Fail

German and Russian courses at the 100-level may not be taken pass/fail unless the student has already fulfilled WFU's language requirement.

## Contact Information

Department of German & Russian (<http://college.wfu.edu/germanrussian/>)  
Greene Hall 333, Box 7353  
Phone 336-758-3493



## Programs Majors

- German Studies, B.A.
- German, B.A.
- Russian, B.A.

## Minors

- German Studies, Minor
- German, Minor
- Russian, Minor

## Courses German (GER)

### GER 001. German for Reading Knowledge. (1.5 h)

For graduate students and motivated undergraduate students who will need a reading knowledge of German in their academic fields (Divinity School, Religious Studies, Philosophy, Music, etc.). Introductory training in understanding/translating a variety of texts from German into English, including grammar and vocabulary overview. No prior knowledge of German necessary. Level: Beginner to Intermediate. Taught online. Pass/Fail.

### GER 002. German for Reading Knowledge. (1.5 h)

For graduate students and motivated undergraduate students who will need a reading knowledge of German in their academic fields (Divinity School, Religious Studies, Philosophy, Music, etc.). Continuation of grammar and vocabulary overview from GER 001, culminating in a personalized translation project. Includes German proficiency test samples. For students who have completed GER 001, or who have received instructor permission. Level: Intermediate to Advanced. Taught online. Pass/Fail.

### GER 100. German Pre-Orientation Tour. (1 h)

### GER 110. Intensive Elementary German. (4 h)

One-semester course covering the material of GER 111 and 112. For students whose preparation for GER 153 is inadequate or who have demonstrated proficiency in another language. Not open to students who have had GER 111 or 112. Offered only at the Flow House in Vienna.

### GER 111. Elementary German. (4 h)

Introduction to German language and culture. First of a two-semester sequence.

### GER 112. Elementary German. (4 h)

Introduction to German language and culture. Second of a two-semester sequence.

### GER 113. Intensive Elementary German. (4 h)

A one-semester course covering the material of German 111 and 112. For students whose preparation for German 153 is inadequate or who have demonstrated proficiency in another language. Not open to students who have had German 111 or 112.

### GER 150. Intermediate German. (4 h)

Review of principles of grammar; reading of selected prose and poetry. Offered only at the Flow House in Vienna. P - GER 110, GER 112, or GER 113.

### GER 153. Intermediate German. (4 h)

Review of basic grammar; reading of selected prose and poetry. P-GER 110, GER 112 or GER 113.

### GER 208. Introduction to German Short Fiction. (3 h)

Lecture and discussion in German. Offered only in Jena, Germany. P-GER 150 or 153 or equivalent.

### GER 210. Encounters with the German-Speaking World. (3 h)

Formative events and figures of German-speaking cultures and the literary and political texts that define their identity. P-GER 150 or 153.

### GER 212. Introduction to German Short Fiction. (3 h)

Introduction to short works of German literature. P-GER 150 or 153 or equivalent.

### GER 214. Masterpieces of Austrian Literature. (3 h)

Study of masterpieces of Austrian literature of the 19th, 20th, and 21st centuries. Lecture and discussion in German. Offered only at the Flow House in Vienna P-GER 150 or 153 or equivalent.

### GER 317. Composition and Grammar Review. (3 h)

Review of the fundamentals of German grammar with intensive practice in translation and composition. Required for majors and minors. Offered in fall. P-200-level course or POI.

### GER 318. German Conversation. (3 h)

Vocabulary for everyday situations, fluency and pronunciation, discussion of various topics from easy to advanced, listening exercises, free speaking, oral presentations. P-200-level course or POI.

### GER 319. Advanced Writing and Stylistics. (3 h)

Emphasis on improving and expanding writing skills and vocabulary acquisition. Introduction to writing in different genres and contexts, such as blogs, reports, summaries, opinion pieces, short stories, memoirs, emails, newspaper articles, and fairy tales. Includes a creative writing component, relevant grammar topics, and readings in Young Adult Literature. P-200-level course or POI.

### GER 320. German Culture and Civilization I. (3 h)

Survey of German culture and civilization from prehistoric times to 1848. Conducted in German. P-200-level course or POI. (CD)

### GER 321. German Culture and Civilization II. (3 h)

Survey of German culture and civilization from 1848 to the present, with emphasis on contemporary Germany. Conducted in German. P - 200-level course or POI. (CD)

### GER 322. Internship in German Language. (0.5-3 h)

May be repeated for a total of 6 hours, only 3 of which may count towards the major or minor. Pass/Fail only. P- GER 317 or POI.

### GER 329. German for Professional Purposes I. (3 h)

Emphasis on social market economy, writing resumes, the European Union, job ads and job interviews, current topics in German business, oral proficiency, business correspondence, grammar review, business etiquette, banking, and financing. P-GER 317 or POI.

### GER 330. German for Professional Purposes II. (3 h)

Prepares students for the internationally acknowledged exam Wirtschaftsdeutsch als Fremdsprache, which is offered at the end of the semester. Other topics include: writing a business plan, the structure of German companies, current topics in German business, oral proficiency, business correspondence, and business theory. P-GER 329 or POI.

**GER 350. German-Jewish Literature and Culture. (3 h)**

An examination of the German literary representation of Jews and Judaism in the last two centuries. Through text by both Jewish and non-Jewish authors, the course explores the nationalistic, economic, and racial motivations behind anti-Semitism, as well as Jewish self-awareness within the German-speaking culture. Topics to be covered include the Enlightenment, 19th-century nationalism, and Holocaust. The course culminates with works by recent German-Jewish authors. P-200-level course or POI.

**GER 370. Individual Study. (1-3 h)**

Readings on selected topics in literature or current events not ordinarily covered in other courses. May be repeated once for major/minor elective credit. P - 200-level course and POI.

**GER 380. German Literature before 1700. (3 h)**

Survey of German literature of the Middle Ages, Reformation, and Baroque eras; emphasizes the chivalric period, Martin Luther, and the Baroque period. Offered in fall. P-200-level course or POI.

**GER 381. German Literature from 1700-1815. (3 h)**

Selected works from the Enlightenment, the Storm and Stress period, the poetry and major dramas of Goethe and Schiller, and German Romanticism. Offered in fall. P - 200-level course or POI.

**GER 383. German Literature from 1815-1900. (3 h)**

Study of selected works from the Realist period and subsequent Naturalist movement, with attention to their historical and social contexts. Offered in fall. P-200-level or POI.

**GER 385. German Literature from 1900 to Present. (3 h)**

Intensive study of representative works of major German, Austrian, and Swiss authors of the 20th and 21st centuries. Offered in fall. P - 200-level course or POI. (CD)

**GER 387. Honors in German. (2.5 h)**

Conference course in German literature or culture. A major research paper is required. Designed for candidates for departmental honors.

**GER 388. Honors in German. (2.5 h)**

Conference course in German literature or culture. A major research paper is required. Designed for candidates for departmental honors.

**GER 399. Seminar in the Major. (3 h)**

Intensive examination of a selected genre or special topic to be determined by the instructor. Intensive practice in critical discourse, including discussion and an oral presentation in German. Introduction to literary scholarship and research methodology leading to a major research paper. Required for all majors. May be repeated. Offered in spring. P-GER 350, 380, 381, 383, 385 or POI.

## German Studies (GES)

All GES courses are taught in English

In addition to the courses listed under the German major, the German Studies major also offers the following courses. No courses completed elsewhere may satisfy Division II credit.

**GES 100. German Pre-Orientation Tour. (1 h)****GES 331. Weimar Germany. (3 h)**

Art, literature, music, and film of Weimar Germany, 1919-1933, in historical context. Also listed at HST 318.

**GES 335. German Film. (3 h)**

Survey of German cinema from the silent era to the present.

**GES 336. Special Topics in German Film. (3 h)**

Examination of a topic, movement, or director (to be determined by instructor).

**GES 337. Myth and National Identity Formation. (3 h)**

Explores the philosophical, social, religious, and political background of Germany and Austria in the context of the Nibelung cycle. Students read selected works of Tacitus, medieval epics, medieval poetry, Herder, Wagner, Nietzsche, and Adorno. (D)

**GES 340. German Masterworks in Translation. (3 h)**

Examines selected works of German, Austrian, and Swiss fiction in English translation by such writers as Goethe, Schiller, Kafka, Mann, and Schnitzler. Literary periods, genres, and authors vary according to instructor. Can also be offered online in summer. (D)

**GES 341. Austrian Literature in Translation. (3 h)**

Examines the literature of Austria from the decline of the Habsburg Empire to the present day. Intended for current and/or prospective German major or minors. (D)

**GES 345. History of the German Language. (3 h)**

Survey of the development of the German language from prehistoric times to modern day German. Topics include: From Indo-European to Germanic, phonetical and lexical changes of the German language, Old High German, Middle-High German, Early New High German, and Modern Standard German. No prior knowledge of linguistics necessary.

**GES 350. Fin de Siècle Vienna. (3 h)**

Survey of major developments in Viennese art, music, literature, and society from roughly 1889 to 1918. Important figures to be discussed are Mahler, Schoenberg, Klimt, Schiele, Schnitzler, Musil, Freud, and Herzl. Offered only at the Flow House in Vienna. (D)

**GES 351. German-Jewish Literature and Culture. (3 h)**

Explores the history of relations, cross-cultural influences, and prejudices between German Jews and Christians in literature from the Middle Ages to the present. Texts and discussions will also draw attention to pertinent contemporary issues, such as various forms of intolerance and the complexity and malleability of religious identity. (D)

**GES 390. German Women Writers. (3 h)**

Examination of selected works by women authors. Literary periods, genres, and authors vary according to instructor. (D)

**GES 391. Germanic Myths and Monsters. (3 h)**

Examines myths and monsters in medieval and modern discourse of the German-speaking countries. Students read selected works such as the Edda, medieval epics and romances, as well as nineteenth- and twentieth-century authors. P - 200 level course or equivalent. (D)

**GES 393. Luther. (3 h)**

Examines the social political, and religious background of Germany on the eve of the Reformation, traces the formative (sometimes legendary) events of Luther's life, and explores several of his most important tracts, his translation of the Bible, and his more notorious confrontations and opponents. (D)

**GES 394. German Myths, Legends and Fairy Tales. (3 h)**

Study of German myths, legends and fairy tales since the Middle Ages and their role in the formation of German national identity. (D)

**GES 395. Special Topics in German Studies. (3 h)**

Individual topics vary by instructor. (D)

**GES 396. The German Novel. (3 h)**

Introduction to novels by German, Swiss, and Austrian authors. (D)

**GES 397. Intellectual History of Weimar. (3 h)**

Examines the philosophical, political and literary works that gave rise to the mythical status of Weimar as the intellectual heart of Germany. Students read selected works by Luther, Goethe, Schiller, Fichte and the Jena Romantics. (D)

## Russian (RUS)

**RUS 111. Elementary Russian I. (4 h)**

The essentials of Russian grammar, conversation, drill, and reading of elementary texts.

**RUS 112. Elementary Russian II. (4 h)**

The essentials of Russian grammar, conversation, drill, and reading of elementary texts. P-RUS 111 or equivalent.

**RUS 153. Intermediate Russian. (4 h)**

Principles of Russian grammar are reviewed and expanded upon; reading of short prose pieces and materials from the Russian press. P-RUS 112 or equivalent.

**RUS 210. Russians and Their World. (3 h)**

Introduction to Russian culture and society, with topics ranging from history, religion, art and literature to contemporary Russian popular music, TV and film. Taught in Russian. P-RUS 153 or equivalent.

**RUS 212. Introduction to Russian Literature. (3 h)**

Reading of selected short stories and excerpts from longer works by Russian authors from the 19th century to the present. P-RUS 153 or equivalent.

**RUS 317. Seminar in Russian Literature. (3 h)**

In-depth reading and discussion of shorter works of poetry and prose by the foremost Russian authors from the 19th century to the present. P-RUS 212.

**RUS 321. Conversation and Composition. (3 h)**

Intensive practice in composition and conversation based on contemporary Russian materials. P - RUS 210 or 212.

**RUS 328. Advanced Grammar. (3 h)**

Mastery of Russian declension and conjugation, with special attention to the correct use of reference materials. Syntax of complex and problematic sentences. P-RUS 321.

**RUS 330. Structure of Russian. (3 h)**

The linguistic tools of phonetics, phonemics, and morphophonemics are explained and applied to modern Russian. Emphasis on the study of roots and word formation. P-POI.

**RUS 332. The History of Russian Language. (3 h)**

The evolution of Russian from Common Slavic to the modern language; theory of linguistic reconstruction and the Indo-European family; readings from selected Old East Slavic texts. P-RUS 321 and POI.

**RUS 335. Russian Culture and Civilization. (3 h)**

Survey of Russian culture and civilization with emphasis on contemporary events, politics, and music and art. Conducted in Russian. Offered spring. P-RUS 321 or POI.

**RUS 340. Seminar in Translation. (3 h)**

Advanced work in English-to-Russian and Russian-to-English translation. P-RUS 321 and POI.

**RUS 341. Russian Literature in Translation. (3 h)**

Reading and discussion of selected works from Russian literature in English translation by such writers as Gogol, Dostoevsky, Tolstoy, Bulgakov, and Solzhenitsyn. (D)

**RUS 345. Special Topics in Russian. (3 h)**

P-RUS 321, and Permission of Instructor.

**RUS 354. Language of the Russian Press and Mass Media. (3 h)**

Readings from Russian newspapers, magazines and the Internet, as well as exposure to Russian television and radio broadcasts. Emphasis is on improving reading and listening skills and vocabulary acquisition. P-RUS 212 or POI.

**RUS 370. Individual Study. (1.5-3 h)**

Study in language or literature beyond the RUS 210-212 level. May be repeated for credit. P-RUS 212.

**RUS 387. Honors in Russian. (2.5 h)**

Conference course in Russian literature or culture. A major research paper is required. Designed for candidates for departmental honors.

**RUS 388. Honors in Russian. (2.5 h)**

Conference course in Russian literature or culture. A major research paper is required. Designed for candidates for departmental honors.

## Faculty

**Chair** Alyssa Howards

**Professors** William S. Hamilton (Russian Linguistics), Rebecca S. Thomas (German, Flow House Vienna, Austria)

**Associate Professors** Alyssa Howards (German, Post-Graduate Fellowships), Grant P. McAllister (German, Study Abroad), Heiko Wiggers (Business German Relations and Internships), Tina M. Boyer (German, Medieval Studies, Self-Instructional Languages)

**Assistant Professor** Elena Pedigo Clark (Russian Language and Literature)

**Associate Teaching Professor** Mary (Molly) Knight (German, Contemporary German Literature)

**Instructors** Günter Haika (Resident German Language Instructor and House Manager for Flow House Vienna, Austria), Martina Kritinar (Resident German Language Instructor for Flow House Vienna, Austria), Ulrike Anton (Resident Music Instructor of Flow House Vienna, Austria), Martin Schwarz (Resident Economics Instructor for Flow House Vienna, Austria), Stefan Wedrac (Resident History Language Instructor for Flow House Vienna, Austria)

## German Studies, B.A.

### Requirements

Requires 27 hours beyond GER 153 to include:

Code	Title	Hours
Select at least one of the following:		3
GER 208	Introduction to German Short Fiction (offered only in Jena)	
GER 210	Encounters with the German-Speaking World	
GER 212	Introduction to German Short Fiction	
GER 214	Masterpieces of Austrian Literature (Vienna)	
Select one of the following:		6
GES 331	Weimar Germany	
GES 335	German Film	
GES 336	Special Topics in German Film	
GES 337	Myth and National Identity Formation	
GES 345	History of the German Language	

Select two of the following: *		3
GES 340	German Masterworks in Translation	
GES 341	Austrian Literature in Translation	
GES 351	German-Jewish Literature and Culture	
GES 390	German Women Writers	
GES 393	Luther	
GES 394	German Myths, Legends and Fairy Tales	
GES 395	Special Topics in German Studies	
GES 396	The German Novel	
GES 397	Intellectual History of Weimar	
Select five electives **		15

\* *Students may take more than one course from the GES 390-GES 397 sequence for elective credit.*

\*\* *Two and only two of which must be from external departments (art, music, history, religion, political science, philosophy). See here (<http://germanrussian.wfu.edu/>) for approved courses.*

## German, B.A. Requirements

Requires 27 hours beyond GER 153 to include:

Code	Title	Hours
GER 317	Composition and Grammar Review	3
Select at least one of the following:		3
GER 208	Introduction to German Short Fiction (offered only in Jena)	
GER 210	Encounters with the German-Speaking World	
GER 212	Introduction to German Short Fiction	
GER 214	Masterpieces of Austrian Literature (offered only in Vienna)	
Select at least one of the following:		3
GER 380	German Literature before 1700	
GER 381	German Literature from 1700-1815	
GER 383	German Literature from 1815-1900	
GER 385	German Literature from 1900 to Present	
GER 399	Seminar in the Major	3

No more than two GES courses may count in the major

## Honors

Highly qualified majors will be invited by the department to participate in the honors program in German. To be graduated with the designation "Honors in German," students must complete a senior research project and maintain a grade point average of at least 3.0 overall and 3.3 in German. For additional information, members of the departmental faculty should be consulted.

## Russian, B.A. Requirements

Requires 24 hours beyond RUS 153 and must include:

Code	Title	Hours
RUS 210	Russians and Their World	3
or RUS 212	Introduction to Russian Literature	
RUS 317	Seminar in Russian Literature	3
RUS 321	Conversation and Composition	3
RUS 328	Advanced Grammar	3

## German Studies, Minor Requirements

Requires 15 hours beyond GER 153 to include:

Code	Title	Hours
Select at least one of the following:		3
GER 208	Introduction to German Short Fiction (offered only in Jena)	
GER 210	Encounters with the German-Speaking World	
GER 212	Introduction to German Short Fiction	
GER 214	Masterpieces of Austrian Literature (Vienna)	
Select one of the following:		3
GES 331	Weimar Germany	
GES 335	German Film	
GES 336	Special Topics in German Film	
GES 337	Myth and National Identity Formation	
GES 345	History of the German Language	
Select one of the following:		3
GES 340	German Masterworks in Translation	
GES 341	Austrian Literature in Translation	
GES 351	German-Jewish Literature and Culture	
GES 390	German Women Writers	
GES 393	Luther	
GES 394	German Myths, Legends and Fairy Tales	
GES 395	Special Topics in German Studies	
GES 396	The German Novel	
GES 397	Intellectual History of Weimar	
Select two Electives *		

\* *One and only one of which must be from external departments (art, music, history, religion, political science, philosophy).*

## German, Minor Requirements

Requires 15 hours beyond GER 153, to include:

Code	Title	Hours
GER 317	Composition and Grammar Review	3
Select at least one of the following:		3
GER 208	Introduction to German Short Fiction (offered only in Jena)	
GER 210	Encounters with the German-Speaking World	
GER 212	Introduction to German Short Fiction	

GER 214	Masterpieces of Austrian Literature (offered only in Vienna)	
Select at least one of the following:		3
GER 380	German Literature before 1700	
GER 381	German Literature from 1700-1815	
GER 383	German Literature from 1815-1900	
GER 385	German Literature from 1900 to Present	
May count only one GES course towards the minor		

## Russian, Minor

### Requirements

Requires 15 hours beyond RUS 153 and must include:

Code	Title	Hours
RUS 210	Russians and Their World	3
or RUS 212	Introduction to Russian Literature	
RUS 321	Conversation and Composition	3

## Global Trade and Commerce Studies (GTCS)

Interdisciplinary Minor

Globalization has proliferated in the 21<sup>st</sup> century due to advances in transportation and communication technology. As a result, interaction between people and companies has increased on a worldwide scale. Therefore, an understanding of the global nature of transactions among corporate and social enterprises can impact one's career success.

The Global Trade and Commerce minor seeks to provide such understanding by offering students in the College and in the School of Business an opportunity to complement their major field of study with coursework having both a global focus and a significant business or economics component. This coursework spans business, the humanities, literatures, and social sciences. Furthermore, students are required to participate in a study abroad experience for academic credit. As a capstone, seniors pursuing the minor must take a course designed to synthesize their individual and collective learning from previous courses taken towards Global Trade and Commerce.

For students in the College, the minor provides an opportunity to delve into aspects of history, economics, policy, and cultures related to global enterprises. For students in the Business School, the minor fulfills the concentration in international business for Business and Enterprise Management (BEM) majors.

## Contact Information

Global Trade and Commerce Studies (<https://global.wfu.edu/global-campus/international-minors/global-trade-commerce-studies/>)

## Programs

### Minor

- Global Trade and Commerce Studies, Minor

## Faculty

Coordinator, Associate Provost for Global Affairs J. Kline Harrison

Professor Ian Taplin

## Global Trade and Commerce Studies, Minor

### Requirements

Consists of a total of 15 hours. Candidates for the minor will be required to take:

Code	Title	Hours
INS 260	Seminar in Global Trade and Commerce Studies (preferably during senior year)	3
Select 12 additional hours in GTCS *		12

\* *Must include a study abroad experience for credit. (International students residing in the US in a non-immigrant visa status are exempt from the study abroad requirement.)*

No more than 6 of the 15 hours for the minor may be taken in a single discipline or within the School of Business.

The following list contains courses within Wake Forest University that qualify as a GTCS course. Courses taken during the study abroad experience which may qualify as a GTCS course also will be reviewed and approved by the coordinator of the minor.

## Elective Courses for Global Trade and Commerce Studies

Additional elective courses may have been approved since publication of this bulletin. The program coordinator maintains a complete list of all approved elective courses. For course descriptions, see the relevant department's listings in this publication.

Code	Title	Hours
ANT 337	Economic Anthropology	3
BEM 312	Human Resource Management (Salamanca only)	3
BEM 315	Managing in a Global Context	3
BEM 322	Global Marketing Strategy	3
BEM 375	Contemporary Issues in Business and Foundations of Capitalism	3
BEM 391	Global Business Studies (abroad credit only)	3
CHI 255	Business Chinese	3
COM 350	Intercultural Communication	3
COM 351A	Comparative Communication: Japan	1.5,3
or COM 351B	Comparative Communication: Russia	
or COM 351C	Comparative Communication: Great Britain	
or COM 351D	Comparative Communications: Multiple Countries	
or COM 351E	Comparative Communication: China	
COM 354	International Communication	3
ECN 323	Financial Markets	3
ECN 351	International Trade	3
ECN 352	International Finance	3
ECN 358	Economic Growth and Development	3



ECN 271	Selected Areas in Economics (Salamanca, Cambridge, or pre-approved only)	3
ECN 372	Selected Areas in Economics (Cambridge, or pre-approved only)	3
ENT 200	Foundations of Entrepreneurship: Identifying and Cultivating Valuable Ideas (Barcelona only)	3
ENT 322	Religion, Poverty, and Social Entrepreneurship	3
FIN 234	International Finance	3
FRH 329	French for Business Communication	3
FRH 330	French for Management	3
GER 329	German for Professional Purposes I	3
GER 330	German for Professional Purposes II	3
HST 105	Africa in World History	3
HST 108	Americas and the World	3
HST 109	Asia and the World	3
HST 224	Great Britain since 1750	3
HST 231	Russia and Soviet Union: 1865 to Present	3
HST 243	Middle East since 1500	3
HST 245	Modern China since 1850	3
HST 247	Japan since 1600	3
HST 249	Intro to East Asia	3
HST 251	Modern South Asia	3
HST 257	The U.S and the World since 1914	3
HST 275	Modern Latin America	3
HST 310	20th Century Eastern Europe	3
HST 347	The Rise of Asian Economic Power since WWII	3
HST 350	World Economic History: Globalization, Wealth and Poverty, 1500-Present	3
INS 229	Internship in International Studies	1-3
POL 232	Politics in Russia and Eastern Europe	3
POL 235	European Integration	3
POL 238	Comparative Economic and Political Development	3
POL 239	State, Economy, and International Competitiveness	3
POL 242	Topics in Comparative Politics	3
POL 253	International Political Economy	3
POL 256	International Security	3
POL 257	Politics of International Development	3
POL 260	United States and East Asia	3
POL 262	International Organizations	3
PSY 357	Cross-Cultural Psychology	3
REL 344	Religion, Poverty, and Social Entrepreneurship	3
SOC 363	Global Capitalism	3
SOC 365	Technology, Culture, and Change	3
SPA 195	Spanish Language and Culture	1-3
SPA 325	Spanish for Business I	3
SPA 326	International Business: Spain/Latin America	3
SPA 327	Spanish for Business II	3

SPA 380	Spanish for the Professions	3
SPA 387	Cultural Industries and Institutions in Spain and Spanish America	3
SPA 388	Global Negotiation and Conflict-Management Skills in a Spanish-Speaking Setting	3
SPA 390	International Business: Spain and Latin America	3
SPA 391	Internship in Spanish for Business and the Professions	1.5-3

## Health and Exercise Science (HES)

The purpose of the Health and Exercise Science Department is to advance knowledge through research and to disseminate the knowledge in this field of study through education of and service to humanity. The primary focus of the department is promoting health and preventing and treating disease through healthful behaviors, emphasizing physical activity and nutrition.

All students must complete:

Code	Title	Hours
HES 100	Lifestyles and Health	1

This requirement must be met before enrollment in additional health and exercise science 100 level HES courses, and in any case by the end of the second year.

## Contact Information

Health and Exercise Science (<http://college.wfu.edu/hes/>)  
 Worrell Professional Center 2164B, Box 7868  
 Phone 336-758-5391

## Programs

### Major

- Health and Exercise Science, B.S.

## Courses

### Health and Exercise Science (HES)

#### HES 100. Lifestyles and Health. (1 h)

A lecture course that deals with the effect of lifestyle behaviors on various health outcomes, including cardiovascular disease, cancer, and sexually-transmitted diseases.

#### HES 101. Exercise for Health. (1 h)

A laboratory course on physical fitness that covers weight control, cardiovascular endurance, muscular strength, and flexibility.

#### HES 112. Sports Proficiency. (1 h)

#### HES 120. Fitness Activities. (1 h)

This course is designed to promote health and well-being through a variety of exercise and skill based activities. The course focuses on providing the knowledge and skills needed for lifetime participation in these activities. Pass/fail only. May be repeated for up to 4 hours of credit if activities differ.

**HES 232. Emergency Medical Training. (3 h)**

Lectures and practical experiences in preparation for responding to medical emergencies, including: patient assessment; airway management; cardiopulmonary resuscitation; O<sub>2</sub> therapy; management of shock; trauma and environmental emergencies; and head/spine/musculoskeletal injuries. Clinical hours and Saturday classes are required. EMT certification is offered, attendance is required for State and National Certification testing. Pass/fail only.

**HES 262. Statistics in the Health Sciences. (3 h)**

Basic statistics with an emphasis on application to research in the health sciences. Students are introduced to graphics and statistical software for statistical analysis. (QR)

**HES 310. Clinical Externship. (1, 2 h)**

Application of theory and methods of solving problems in a specialized area according to the student's immediate career goals. Open only to majors. Pass/Fail only. P-POI.

**HES 311. Clinical Internship. (1, 2 h)**

A semester experience in the campus rehabilitation or clinical research programs. Work includes active participation with individuals and groups with clinical conditions, such as heart disease, pulmonary disease, osteoarthritis, and obesity. Focus is on multiple intervention strategies, in conjunction with participation in physiologic monitoring of patients during therapeutic sessions. Open only to majors. Pass/Fail only. P-POI.

**HES 312. Exercise and Health Psychology. (3 h)**

A survey of the psychological antecedents of exercise and selected topics in health psychology with particular attention to wellness, stress, the biobehavioral basis of coronary heart disease, and the psychodynamics of rehabilitative medicine. P-HES 262 or POI.

**HES 320. Mindfulness Meditation in Behavioral Medicine. (2 h)**

Study of contemplative science and in the realm of behavioral medicine. Content includes recent evidence from neuroscience and outcome research on both mindfulness-based stress reduction and mindfulness-based cognitive therapy. Taught in a seminar format with laboratory experience. Pass/Fail only. P-POI.

**HES 350. Human Physiology. (3 h)**

A lecture course which presents the basic principles and concepts of the function of selected systems of the human body, with emphasis on the muscular, cardiovascular, pulmonary, and nervous systems.

**HES 350L. Human Physiology Lab. (1 h)**

A laboratory course that coincides with HES 350 human physiology lecture course. P or C-HES 350.

**HES 351. Nutrition in Health and Disease. (3 h)**

Lecture course which presents the principles of healthy nutrition including an understanding of nutrients and their metabolism as well as the impact of nutrition on weight management and chronic diseases. P-HES 350 or POI.

**HES 352. Human Gross Anatomy. (4 h)**

Lecture/laboratory course in which the structure and function of the musculoskeletal, neuromuscular, pulmonary, and cardiovascular systems are studied using dissected human cadavers.

**HES 353. Physiology of Exercise. (3 h)**

A lecture course which presents the concepts and applications of the physiological response of the human body to physical activity. Acute and chronic responses of the muscular and cardiorespiratory systems to exercise are examined. P-HES 350 or POI.

**HES 354. Assessment Techniques in Health and Exercise Science. (3 h)**

A lecture/laboratory course to develop clinical skills and knowledge in the assessment of health in areas of exercise physiology, nutrition/metabolism, biomechanics/neuromuscular function, and health psychology. The laboratory will emphasize use of instrumentation and analysis/interpretation of data collected on human subjects. P-HES 262, HES 350 and 352; or POI. (QR)

**HES 355. Exercise Programming. (1.5 h)**

Lecture/laboratory course which presents the scientific principles of safe and effective exercise prescription for fitness programs. P-HES 350 or POI.

**HES 360. Epidemiology. (3 h)**

Introduction to basic epidemiologic principles and methods used to assess disease occurrence and association between risk factors and health outcomes in human populations. Emphasis is placed on modifiable exposures (e.g. diet and physical activity) and chronic disease outcomes. P - An applied statistical methods course, such as ANT 380, BIO 380, BEM 202, HES 262, PSY 311, SOC 271, or STA 111; or POI. (QR)

**HES 362. Experimental Design for Clinical and Translational Health Science Research. (3 h)**

Examination of scientific methods as applied to Clinical and Translational Health Science Research. Emphasis is placed on understanding the strengths and weaknesses for a broad range of study designs that can be found in the health sciences. Special emphasis is placed on randomized controlled trials, bioethics, the interpretation of data within the context of internal and external validity, as well as skills in reviewing the scientific literature. P - An applied statistics course such as ANT 380, BIO 380, BEM 201, HES 262, PSY 311, SOC 271, or STA 111; or POI.

**HES 370. Biomechanics of Human Movement. (3 h)**

Study of the mechanical principles which influence human movement, sport technique, and equipment design. P-HES 352 or POI.

**HES 372. Anatomy Dissection Laboratory. (2 h)**

A laboratory course that involves human cadaver dissection of the musculoskeletal, neuromuscular, pulmonary, and cardiovascular systems. Open only to majors. P-POI.

**HES 375. Advanced Physiology of Exercise. (3 h)**

A lecture course which provides an in-depth examination of the physiological mechanisms responsible for both the acute and chronic changes which occur with exercise. Included are metabolic and cellular changes in response to exercise, as well as the alterations of the major organ systems from acute and chronic exercise training. P - HES 353 or POI.

**HES 376. Interventions in Behavioral Medicine. (3 h)**

Seminar course providing an overview of the development, implementation, and evaluation of interventions within the context of behavioral medicine. Attention is given to behavior change theories that have served as the framework for physical activity and weight loss interventions. Hands-on experience is included with current interventions through peer counseling and case study analysis.

**HES 382. Individual Study. (1-2 h)**

Independent study directed by a faculty adviser. The student must consult the adviser before registering for this course. Open only to majors. May be repeated for up to 4 hours of credit. P-POI.

**HES 384. Special Topics in Health and Exercise Science. (1.5-3 h)**

Intensive investigation of a current scientific research topic in health or exercise science with focus on a specific topic.

**HES 386. Honors Research. (2 h)**

Directed study and research in preparation for a major paper on a subject of mutual interest to the student and faculty honors adviser. Taken only by candidates for departmental honors. P-POI, approval of departmental honors committee, and prior completion of a 2-hour Individual Study.

**HES 388. Field Internship in Health Sciences. (3 h)**

An extensive hands-on experience in a discipline of the health sciences related to the student's career goals. This internship occurs outside the Wake Forest University community. Open only to majors. Pass/Fail only. P-POI.

## Faculty

**Chair** Peter H. Brubaker

**Associate Chair** Gary D. Miller

**Professors** Michael J. Berry, Peter H. Brubaker, Anthony P. Marsh, Stephen P. Messier, Shannon L. Mihalko, Gary D. Miller

**Associate Professors** Kristen M. Beavers, Jeffrey A. Katula

**Assistant Professor** Jason T. Fanning

**Research Professor** W. Jack Rejeski

**Assistant Teaching Professor** Edward H. Eaves

**Professor of the Practice** Sharon K. Woodard

**Assistant Professor of the Practice** Crystal T. Dixon, Abbie P. Wrights

**Part-time Assistant Professor of the Practice** Natascha L. Romeo

**Adjunct Assistant Professors** Stephanie C. Bunch, Katherine Hsieh, Ryan Miller

**Adjunct Lecturers** Meghan E. Belanger, Michelle C. Carter, Deanna Dyzbon, Jerry Hopping, Dave Lockwood

## Health and Exercise Science, B.S. Requirements

A major requires 31 hours in health and exercise science and must include:

Code	Title	Hours
<b>Required Major Courses *</b>		
HES 262	Statistics in the Health Sciences	3
HES 312	Exercise and Health Psychology	3
HES 350 & 350L	Human Physiology and Human Physiology Lab	4
HES 351	Nutrition in Health and Disease	3
HES 352	Human Gross Anatomy	4
HES 353	Physiology of Exercise	3
HES 354	Assessment Techniques in Health and Exercise Science	3
HES 360	Epidemiology	3
HES 370	Biomechanics of Human Movement	3
Select two hours of the following:		2
HES 232	Emergency Medical Training	
HES 310	Clinical Externship	
HES 311	Clinical Internship	
HES 320	Mindfulness Meditation in Behavioral Medicine	
HES 355	Exercise Programming	
HES 372	Anatomy Dissection Laboratory	
HES 375	Advanced Physiology of Exercise	
HES 376	Interventions in Behavioral Medicine	

HES 382	Individual Study
HES 384	Special Topics in Health and Exercise Science
HES 386	Honors Research
HES 388	Field Internship in Health Sciences
ANT 360	Anthropology of Global Health
ANT 362	Medical Anthropology
BIO 346 & 346L	Neurobiology and Neurobiology Lab
BIO 353	Functional Neuroanatomy
BIO 354	Methods in Neuroscience
BIO 361	Principles of Biological Microscopy
BIO 362	Immunology
BIO 363	Sensory Biology
BIO 365	Biology of the Cell
BIO 367	Virology
BIO 370	Biochemistry I: Macromolecules and Metabolism
BIO 372	Advanced Molecular Biology
BIO 383	Genomics
CHM 370	Biochemistry I: Macromolecules and Metabolism
CHM 373	Biochemistry II
CNS 334	Ethics in Health and Human Services
CNS 335	Health and Human Services in a Diverse Society
CNS 337	Skills in Human Services
CNS 340	Professional Orientation to Health and Human Services
COM 356	Health Communication: Patient-Provider
COM 357	Health Communication and Bioethics
COM 358	Health Communication and Bioethics
COM 370	Special Topics (Communicating for Health Behavior Change)
ECN 240	Economics of Health and Medicine
HPA 150	Introduction to Public Health
HMN 390	Directed Writing
PHI 161	Introduction to Bioethics
PHI 368	Concepts of Health & Disease
PHI 373	Philosophy of Science
PSY 241	Developmental Psychology
PSY 243	Biopsychology
PSY 322	Psychopharmacology
SOC 335	Sociology of Health and Illness
SOC 336	Sociology of Healthcare
STA 112	Introduction to Regression and Data Science
STA 247	Design and Sampling
SPM 302	Advanced Athletic Training

### Co-Requirements

BIO 150 & 150L	Biology I and Biology I Lab	4
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CHM 111 College Chemistry I  
& 111L and College Chemistry I Lab

\* No more than 2 of the 10 required courses may be transferred from another institution after matriculation at WFU.

Majors are not allowed to apply any HES 100-level courses toward the 31 hours required for graduation. A minimum grade point average of 2.0 is required for graduation in courses that comprise a major in the department.

## Honors

Highly qualified majors are invited by the department to apply for admission to the honors program in health and exercise science during the second semester of the junior year. To be graduated with the designation "Honors in Health and Exercise Science," a student must have a minimum grade point average of 3.4 in the major, a minimum overall grade point average of 3.4, and complete an honors research project which includes a written and an oral report. Interested students should consult the coordinator of the department's honors program. For more information, please consult the department's website at [www.wfu.edu/hes](http://www.wfu.edu/hes) (<http://www.wfu.edu/hes/>).

## Health Policy and Administration (HPA)

Interdisciplinary Minor

The health policy and administration minor is designed to give students a concentration in the area of public health policy and the study of health care delivery. It is open to all majors and places an emphasis on providing students with the analytical methods and knowledge of institutional complexity necessary to an understanding of the rapidly evolving medical industry. Students interested in either public health policy or administrative roles in health care could benefit from the minor.

## Contact Information

Health Policy and Administration (<http://college.wfu.edu/hpa/>)

## Programs

### Minor

- Health Policy and Administration, Minor

## Courses

### HPA 150. Introduction to Public Health. (3 h)

Survey of the basic structure of the health care system in the United States. Includes discussion of current issues of public policy toward health, organization of health care delivery, and health system reform. Serves as the introduction to the interdisciplinary minor in health policy and administration. Offered fall semester only.

### 4 HPA 250. Internship in Health Policy and Administration. (3 h)

A semester experience in a health care policy or health care administration organization. Students will work in conjunction with a director who is a researcher on a public health science research project or with an administrator in health care delivery. Students gain relevant practical experience that builds on prior coursework and provides insight into public health policy issues. Open only to senior health policy and administration students. P-HPA 150, completion of one other course, and POL.

### HPA 262. Special Topics. (3 h)

Seminar and/or lecture courses in selected topics. May be repeated if topic differs.

## Faculty

Director, Professor of Health and Exercise Science Patricia A. Nixon

## Health Policy and Administration, Minor

## Requirements

The coursework requires the following five courses (3 hours each), for a total of 15 hours, plus some notable prerequisites (ECN 150 and an applied statistics course such as ANT 380, BIO 380, BEM 201, HES 262, PSY 311, SOC 271, or STA 111):

Code	Title	Hours
HPA 150	Introduction to Public Health	3
HPA 250	Internship in Health Policy and Administration	3
ECN 240	Economics of Health and Medicine	3
HES 360	Epidemiology	3
Elective in Health Policy and Administration *		3

\* Various cross-listed, health-related courses. Some examples of pre-approved electives are given below. The HPA director can approve other courses that might satisfy this requirement.

## Elective Courses for Health Policy and Administration

May choose one course from the following electives. Additional elective courses may have been approved since publication of this bulletin. For course descriptions, see the relevant department's listings in this publication.

Code	Title	Hours
ANT 362	Medical Anthropology	3
HES 312	Exercise and Health Psychology	3
HPA 262	Special Topics	3
HST 311	Special Topics in History (when topic is Controversies in American Medical History)	3
HST 339	Sickness and Health in American History	3
PHI 161	Introduction to Bioethics	3
POL 216	U.S. Social Welfare Policy	3
PSY 322	Psychopharmacology	3
SOC 335	Sociology of Health and Illness	3

As many of the required courses involve prerequisites, students should plan ahead to ensure they can meet all of the requirements in four years.

## History (HST)

Historians collect, organize, and explain complex data. With impressive skills in critical reading, research, analysis, writing, and public speaking, our majors are prepared for a wide range of professions. Wake Forest's history majors pursue careers that range across entrepreneurship, education, government service, healthcare, public-interest foundations, publishing, consulting, journalism, and beyond. Our students also find their studies in history excellent preparation for graduate study in law, business, and the arts and sciences.

Our faculty's research and teaching investigate the political, religious, social, cultural, and economic ideas and institutions that people have used to order their lives. Our curriculum introduces students to historical methodologies and the fundamentals of research and writing. We work together to understand history both as a scholarly discipline and as a framework for intellectual inquiry.

When Wake Forest students explore the past, they confront the diverse contexts in which people have lived and they analyze the choices and forces that have produced our world.

## Divisional Credit

Only courses designated by a (D) receive divisional credit. Wake Forest students cannot receive divisional credit for history courses taken at other institutions or study abroad courses not designated by a (D) in the course list. History courses of students who are transferring to Wake Forest from other institutions will be considered on a case-by-case basis. Students with two AP courses (6 credit hours) in History may take any 200- or 300-level course for divisional credit, with the exception of courses numbered 390 and above.

Students contemplating graduate study should acquire a reading knowledge of one modern foreign language for the master of arts degree and two for the PhD.

## Contact Information

Department of History (<http://college.wfu.edu/history/>)  
Tribble Hall B101, Box 7806  
Phone 336-758-5501

## Programs

### Major

- History, B.A.

### Minor

- History, Minor

## Courses

### History (HST)

#### HST 101. Western Civilization to 1700. (3 h)

Survey of ancient, medieval, and early modern history to 1700. Focus varies with instructor. (CD, D)

#### HST 102. Europe and the World in the Modern Era. (3 h)

Survey of modern Europe from 1700 to the present. Focus varies with instructor. (CD, D)

#### HST 103. World Civilizations to 1500. (3 h)

Survey of the ancient, classical and medieval civilizations of Eurasia with a brief look at American and sub-Saharan societies. Focus varies with instructor. (CD, D)

#### HST 104. World Civilizations since 1500. (3 h)

Survey of the major civilizations of the world in the modern and contemporary periods. Focus varies with instructor. (CD, D)

#### HST 105. Africa in World History. (3 h)

Examines the continent of Africa from prehistory to the present in global perspective, as experienced and understood by Africans themselves. (CD, D)

#### HST 106. Medieval World Civilizations. (3 h)

Provides an overview of world civilizations in the period generally understood as "medieval," from 600 C.E. to 1600 C.E. The course examines cultures and societies in East Asia, India, Africa, and the Americas as well as Europe and asks if there is such a thing as a "medieval" world history. What characteristics do these widely differing cultures and geographic areas share, and where do they differ? (CD, D)

#### HST 107. Middle East & the World. (3 h)

Examines, in its global context, the Middle East region from the inception of Islam in the 7th century to the 20th century. Combines an introduction to Islamic civilization in its central lands with a close study of its interaction with other societies. (CD, D)

#### HST 108. Americas and the World. (3 h)

Examines North, Central and South America in global perspectives from premodern times to the present with particular attention to political, economic, social, and cultural developments and interactions. (CD, D)

#### HST 109. Asia and the World. (3 h)

Overview of Asia (primarily East, Southeast, and South Asia) since 1500 with emphasis on economic, diplomatic, cultural, and religious interactions with the outside world. (CD, D)

#### HST 110. Atlantic World since 1500. (3 h)

Examines the major developments that have linked the civilizations bordering the Atlantic Ocean from 1500 to the present. Themes include exploration; commerce; European colonization and indigenous responses; disease; religious conversion and revivalism; mestizo and creole culture; imperial warfare; enlightenment; revolution; slavery and abolition; extractive economies; nationalism; 'scientific racism,' invented traditions; the black diaspora and negritude; decolonization; the Cold War; segregation and apartheid; dictatorship; neoliberalism; and globalization. (CD, D)

#### HST 111. Ancient World Civilizations. (3 h)

Explores ancient civilizations from the perspective that each civilization is a reflection of local circumstances and the distinctive worldview that shaped its institutions to become a complex, state-organized society. (CD, D)

#### HST 112. Big History: A History of the Cosmos and Humanity's Place In It. (3 h)

Beginning 13.7 billion years ago and drawing on the sciences, social sciences, and history, this course offers a contemporary understanding of how the physical, social, and mental worlds people inhabit came to be. Its effort to integrate disciplines that usually remain unconnected should appeal to those who want to see how the pieces of education fit together. (CD, D)



**HST 113. Health, Disease and Healing in World History. (3 h)**

Examines political, economic, and cultural responses to sickness and disease in global historical context, paying particular attention to the intersection of religion and healing, as well as race, class, and gender, in ancient, medieval, early modern, pre-colonial, colonial, and post-colonial societies. (D)

**HST 114. Gender and Sexuality in World History. (3 h)**

Introduces the global and historical breadth of gender and sexual systems. Foundational and current approaches to cross-cultural historical analysis of masculinity, women's rights, and differences between LGBTQ identities and other models. Also listed as WGS 214. (CD, D)

**HST 119. Venice and the World. (3 h)**

The history of Venice is intertwined with many of the central themes of world history. Students will examine the history of Venice from its foundation to the present day, examining the ongoing reciprocal interactions between the city-state, Europe, and the wider world. Offered in Venice only. (CD, D)

**HST 120. Formation of Europe: Habsburg Empire and its Successor States. (3 h)**

The development of Central and East-Central Europe as a multiethnic unity under the Habsburgs, 1526-1918, and its dissolution into successor states and subsequent interactions, 1918-1989. Offered in Vienna. (D)

**HST 150. United States History. (3 h)**

Survey of U.S. history from the colonial period to the present.

**HST 151. The Golden Age of Burgundy. (1.5 h)**

Burgundian society, culture, and government in the reigns of Philip the Bold, John the Fearless, Philip the Good, and Charles the Rash, 1384-1477. Offered in Dijon.

**HST 161. History Museums. (1.5 h)**

Introduces students to history museums and surveys the major issues involved in the collection and display of historical objects, discusses the impact of social history on museum interpretations, and traces the ethical issues and public controversies stemming from the treatment of historical topics in museum settings.

**HST 162. History of Wake Forest. (1.5 h)**

A survey of the history of Wake Forest from its beginning, including its written and oral traditions. May include a visit to the town of Wake Forest.

**HST 171. Historical Biography. (1.5 h)**

Study of biographies of men and women who have influenced specific histories and civilizations. May be repeated for credit if topic differs.

**HST 172. Historical Novels. (1.5 h)**

The role of the historical past in selected works of fiction. May be repeated for credit if topic varies.

**HST 173. Historical Films. (1.5 h)**

Examines the value of film as a source for understanding the past. Includes viewing and discussing historical films in relation to primary and secondary source texts. May be repeated for credit if topic varies.

**HST 206. The Early Middle Ages. (3 h)**

European history from the end of the ancient world to the mid-12th century, stressing social and cultural developments.

**HST 207. The High Middle Ages Through the Renaissance. (3 h)**

European history from the mid-12th through the early 16th centuries, stressing social and cultural developments.

**HST 209. Europe: From Renaissance to Revolution. (3 h)**

A survey of European history from the 15th to the 18th century. Topics include the voyages of discovery, the military revolution, the formation of the modern state, religious reformation, witchcraft and the rise of modern science, and pre-industrial economic and social structures including women and the family.

**HST 216. General History of Spain. (3 h)**

History of Spain from the pre-Roman period to the present day. Counts as elective for the Spanish major. Offered in Salamanca.

**HST 217. France to 1774. (3 h)**

The history of France from the Paleolithic period to the accession of Louis XVI with particular attention to the early modern period.

**HST 218. France since 1815. (3 h)**

The history of France from the restoration of the monarchy to the Fifth Republic.

**HST 219. Germany to 1871. (3 h)**

Social, economic, and political forces leading to the creation of a single German nation-state out of over 1,700 sovereign and semi-sovereign German states.

**HST 220. Germany: Unification to Unification 1871 to 1990. (3 h)**

The Germans' search for stability and unity in a society riven by conflict and on a continent riven by nationalism.

**HST 221. The British Empire to 1815. (3 h)**

Explores the early history of the British Empire and imperialism until the end of the Napoleonic Wars in 1815, including the Elizabethan conquest of Ireland, global trade and exploration, the foundations of the East India Company, captivity and slavery, and revolution in the Atlantic world, with an emphasis on the place of religion, gender, race, and class in imperial rule.

**HST 222. The British Empire from 1815. (3 h)**

Examines the British Empire and British approaches to imperialism from the end of the Napoleonic Wars in 1815 through to the Brexit crises of the late 2010s. The course considers both formal and informal British influence in Latin America, the Caribbean, Africa, the Middle East and Asia, analyzing the interconnected political, economic, and socio-cultural drivers and outcomes of imperialism, as well as the many anti-imperial movements that developed in response to British rule.

**HST 223. The British Isles to 1750. (3 h)**

Discusses religious reformations in the 16th century; political and scientific experiments in the 17th century; and the commercial revolutions of the 18th century. Examines their effect on the way Englishmen and women conceived of their state, their communities and themselves, exploring social relationships and the changing experience of authority. The course also considers England's relationship to its neighbors, Scotland and Ireland, and these British Isles within the context of early modern Europe.

**HST 224. Great Britain since 1750. (3 h)**

Addresses topics in British history from the Industrial Revolution to New Labour, with attention to how politics and citizenship were linked to imperial power. Explores industrialization, liberalism and their discontents; colonization, decolonization, and immigration; social and urban riot and reform; world war; and the creation of the welfare state and its dismantling. The course also considers Britain's relationship with Ireland and European integration.

**HST 225. History of Venice. (3 h)**

The history of Venice from its origin to the fall of the Venetian Republic. Offered in Venice.

**HST 226. History of London. (1.5-3 h)**

Topographical, social, economic, and political history of London from the earliest times. Lectures, student papers and reports, museum visits and lectures, and on-site inspections. Offered in London.

**HST 228. Georgian and Victorian Society Culture. (3 h)**

Social and economic transformation of England in the 18th and 19th centuries, with particular attention to the rise of professionalism and developments in the arts. Offered in London.

**HST 229. Venetian Society & Culture. (3 h)**

An examination of Venetian society, including the role within Venetian life of music, theatre, the church, and civic ritual. Offered in Venice.

**HST 230. Russia: Origins to 1865. (3 h)**

A survey of the political, social, and economic history of Russia, from its origins to the period of the Great Reforms under Alexander II. Students taking HST 230 cannot receive credit for HST 232/REE 200.

**HST 231. Russia and Soviet Union: 1865 to Present. (3 h)**

A survey of patterns of socio-economic change from the late imperial period to the present, the emergence of the revolutionary movement, and the development of Soviet rule from its establishment to its collapse. Students taking HST 231 cannot receive credit for HST 232/REE 200.

**HST 232. Introduction to Russian and East European Studies. (3 h)**

An interdisciplinary survey of Russia and the Soviet Union, including an examination of society, polity, economy, and culture over time. Also listed as REE 200. Students taking HST 232/REE 200 cannot receive credit for HST 230 or 231. (CD)

**HST 235. The History of European Jewry from the Middle Ages to the Present. (3 h)**

Examines the Jewish historical experience in Europe from the medieval period to the Holocaust and its aftermath. Includes a consideration of social, cultural, economic and political history, and places the particular experience of Jews within the context of changes occurring in Europe from the medieval to the modern period.

**HST 236. The Nazi Holocaust to 1941. (3 h)**

Explores the preconditions and causes of the Nazi Holocaust and situates the Holocaust within the history of European colonial genocide and the rise of totalitarian regimes. Traces the development and radicalism of Nazism within Germany and discusses Nazi efforts to forge a racially pure state from Hitler's ascension to power in 1933 until the invasion of the Soviet Union in 1941. Examines the various ways that Jews and other groups targeted by Nazis responded to the rise of Nazism.

**HST 237. The Nazi Holocaust from 1941. (3 h)**

Examines the systematic attempt to exterminate European Jewry and other groups targeted by Nazi Germany on account of their perceived racial inferiority. In particular examines the period from the 1941 German invasion of the Soviet Union through the end of the war, and discusses the ghettoization of European Jews, the various means of mass murder, and the aftermath of the Holocaust. This class includes an optional trip to the United States Holocaust Memorial Museum in Washington, DC.

**HST 239. Jewish History in the Americas. (3 h)**

Examines the rich history of American Jewry from the period of first settlement to the present. Jews have been present in the Americas since the period of Dutch conquest in the mid-seventeenth century. Over the subsequent three and a half centuries, what was once a distant outpost of the Jewish world has today become a major center, and is home to one of the most diverse, populous, successful, and complicated communities in Jewish history.

**HST 242. Middle East before 1500. (3 h)**

A survey of Middle Eastern history from the rise of Islam to the emergence of the last great Muslim unitary states. The course provides an overview of political history with more in-depth emphasis on the development of Islamic culture and society in the pre-modern era. (CD)

**HST 243. Middle East since 1500. (3 h)**

A survey of modern Middle Eastern history from the collapse of the last great Muslim unitary states to the present day. Topics include the rise and demise of the Ottoman and Safavid empires, socio-political reform, the impact of colonialism, Islamic reform, the development of nationalism, and contemporary social and economic challenges. (CD)

**HST 244. Pre-Modern China to 1850. (3 h)**

Study of traditional China to 1850, with an emphasis on the evolution of political, legal and social institutions and the development of Chinese religion, learning and the arts. (CD)

**HST 245. Modern China since 1850. (3 h)**

Study of modern China from 1850 to the present, focusing on the major political, economic, and cultural transformations occurring in China during this period within the context of modernization, imperialism and (semi) colonialism, world wars and civil wars, revolution and reform, and the ongoing processes of globalization. (CD)

**HST 246. Japan before 1600. (3 h)**

A survey of Japan from earliest times to the coming of Western imperialism, with emphasis on regional ecologies, economic institutions, cultural practice, military organization, political ideology, and foreign relations. (CD)

**HST 247. Japan since 1600. (3 h)**

A survey of Japan in the modern world. Topics include political and cultural revolution, state and empire-building, economic "miracles", social transformations, military conflicts, and intellectual dilemmas. (CD)

**HST 249. Intro to East Asia. (3 h)**

An introduction to the histories and cultures of East Asia, from the earliest times to the present, focusing on China, Korea, Japan, and Vietnam, with some attention to the rest of South-East Asia, and emphasizing ecology and economy, trade and international relations, political ideology, religious belief, and cultural practice. (CD)

**HST 250. Premodern South Asia. (3 h)**

A survey of ancient and medieval South Asia beginning with the Indus Valley civilization to the decline of the Mughal Empire. (CD)

**HST 251. Modern South Asia. (3 h)**

A survey of colonial and post-colonial South Asia beginning with the political conquest of the British East India Company in the mid-18th century until the present. (CD)

**HST 254. American West to 1848. (3 h)**

The first half of a two-semester survey course of the North American West, from roughly 1400 to 1850. Topics include indigenous trade and lifeways, contact, conflict, and cooperation between natives and newcomers, exploration and migration, imperial geopolitical rivalries, and various experiences with western landscapes.

**HST 255. U.S. West from 1848 to the Present. (3 h)**

The second half of a two-semester survey course of the U.S. West, from 1848 to the present. Topics include industrial expansion and urbanization, conflicts with Native Americans, national and ethnic identity formations, contests over natural resources, representations and myths of the West, and religious, cultural, and social diversity.

**HST 256. The U.S and the World, 1763-1914. (3 h)**

The first half of a two-semester survey on U.S. foreign relations. Major topics explore the economic, political, cultural, and social currents linking the U.S. to Europe, Africa, South America, and Asia between 1763 and 1914. Particular attention is given to the influence of the world system—ranging from empire, war, and migration to industrial competition and economic interdependence—on U.S. diplomacy, commerce, and domestic politics and culture.

**HST 257. The U.S and the World since 1914. (3 h)**

The second half of a two-semester survey of U.S. foreign relations. Major topics explore the economic, political, cultural and social currents linking the U.S. to Europe, Africa, Latin America, the Middle East and Asia between since 1914. Particular attention is given to the influence of the international system—ranging from hot and cold wars, to decolonization, economic interdependence and transnational businesses and institutions—on U.S. diplomacy, commerce, and domestic politics and culture.

**HST 258. Colonial America. (3 h)**

Surveys and explores the encounters between natives and newcomers in North America between 1492 and 1763. Topics include development of new communities and cultures, as well as the roles warfare, trade, race, religion, and slavery played in the creation of "new worlds for all."

**HST 259. Revolutionary America. (3 h)**

Examines the transformation that unfolded during the struggles for sovereignty in North America between 1760 and 1800. Considers the political upheavals that converted some British colonists into insurgents and explores the unlikely unification of disparate provinces into a confederated republic.

**HST 262. Antebellum America. (3 h)**

Examines the sociocultural, economic, religious, and political transformations of American society from the period after the Revolutionary War through the onset of the American Civil War.

**HST 263. The U.S. Civil War and Reconstruction. (3 h)**

The political, social, and military events of the war and the economic, social, and political readjustments which followed.

**HST 264. U.S. History 1877-1933: Industrialization, Urbanization, and Conflict. (3 h)**

Political, social, and economic developments in the U.S. from 1877 to 1933 with emphasis on industrialization, urbanization, immigration, growth of Big Business, imperialism, Progressive reform, war, depression, and race, class, and gender conflicts.

**HST 265. US History since the New Deal. (3 h)**

Political, social, and economic history of the U.S. since 1933 with emphasis on the Depression, wars at home and abroad, unionism, civil rights movements, countercultures, environmentalism, religion, the Imperial Presidency, and liberalism and conservatism.

**HST 266. The History of the Slave South. (3 h)**

Examines slavery and southern distinctiveness, from the first interactions of Europeans, Native Americans and Africans through the Civil War and Emancipation. (CD)

**HST 267. The Making of the Modern South since the Civil War. (3 h)**

Traces the history of race relations and southern culture, politics, and economics from sharecropping and segregation through political reform, the Civil Rights Movement, and the Republican New South. (CD)

**HST 268. African History to 1870. (3 h)**

Overview of African history prior to the establishment of European colonial rule, covering the period from the 4th century until 1870. Focuses on sub-Saharan Africa and uses case studies in various regions. (CD)

**HST 269. African History since 1850. (3 h)**

Overview of African history, beginning with the period following the abolition of the Trans Atlantic Slave Trade and ending with contemporary challenges of independent African nations. Emphasizes sub-Saharan African perspectives, initiatives, and historical agency. (CD)

**HST 271. African American History to 1870. (3 h)**

Examines the experiences of African-descended people from Africa to America and from slavery to freedom, with each experience - the slave trade, enslavement, and emancipation - marking a fundamental transformation in black lives. (CD)

**HST 272. African American History since 1870. (3 h)**

Examines the experiences of African-descended people from the destruction of slavery to Reconstruction, from rural to urban, and from Jim Crow to Civil Rights, with each experience - emancipation, migration, and enfranchisement - marking a fundamental transformation in black lives. (CD)

**HST 275. Modern Latin America. (3 h)**

Survey of Latin-American history since independence, concentrating on the 20th century. Emphasizes race, gender, revolution, populism, dictatorship, resistance movements, and U.S-Latin American relations. Examines cultural artifacts from multiple genres. (CD)

**HST 284. Latin America's Colonial Past. (3 h)**

Studies the history of Latin America's colonial past from the precolonial era to the wars of independence in the early 19th century. Topics include: Conquest controversies; autonomy, adaptation, and resistance in indigenous and African communities; sexuality and the Inquisition; and evolving systems of race, caste, and gender. (CD)

**HST 300. History Fin de Siecle Vienna. (3 h)**

Examination of major developments in Viennese culture, politics and society from the 1880s to 1918. Important figures to be discussed may include Mahler, Schoenberg, Klimt, Schiele, Kokoshchka, Schnitzler, Musil, Kafka, Freud and Herzl. Offered only in Vienna.

**HST 304. Travel, History and Landscape in the Mediterranean. (3 h)**

This course considers broader debates about the nature of "Mediterranean" societies in the late medieval and early modern period through case studies of particular places. Topics include cross-cultural cooperation and conflict, travel and travel narratives, the creation of national identities through public history, and contests over development and/or conservation of natural and cultural resources. Offered only in the Mediterranean.

**HST 305. Medieval & Early Modern Iberia. (3 h)**

Examines the variety of Christian, Muslim, and Jewish cultures that flourished on the Iberian peninsula between the years 700 and 1700. Themes include religious diversity and the imposition of orthodoxy, the formation of nation-states and empires, geographic exploration and discovery, and the economics of empire in the early modern period. (CD)

**HST 306. Science, Magic, and Alchemy in Europe, 1400-1700. (3 h)**

Examines scientists and magicians in medieval Europe, who developed theoretical models and practical approaches to understand and to manipulate the natural world. Looks at alchemists, who transformed matter to understand it as well as to make things for practical purposes: metals, gems, medicines, and the philosopher's stone.

**HST 307. Italian Renaissance. (3 h)**

Examination of the economic, political, intellectual, artistic, and social developments in the Italian world from 1350 to 1550. (CD)

**HST 308. World of Alexander the Great. (3 h)**

An examination of Alexander the Great's conquests and the fusion of Greek culture with those of the Near East, Central Asia, and India. Special emphasis placed on the creation of new political institutions and social customs, modes of addressing philosophical and religious issues, as well as the achievements and limitations of Hellenistic Civilization.

**HST 309. European International Relations since World War I. (3 h)**

Surveys European International Relations in the 20th century beyond treaties and alliances to the economic, social, and demographic factors that shaped formal arrangements between states. Covers the impact of new forms of international cooperation, pooled sovereignty, and non-governmental organizations on European diplomacy and internal relations.

**HST 310. 20th Century Eastern Europe. (3 h)**

Examination of the history of 20th century Eastern Europe, including the creation of nation-states, World War II, and the nature of Communist regimes established in the postwar period. Course includes a discussion of the collapse of the Eastern Bloc and the challenges of European integration.

**HST 311. Special Topics in History. (1-3 h)**

Subject varies with instructor.

**HST 311A. Special Topics: American. (1-3 h)**

Subject varies with instructor.

**HST 311E. Special Topics: European. (1-3 h)**

Subject varies with instructor.

**HST 311G. Special Topics: General. (1-3 h)**

Subject varies with instructor.

**HST 311W. Special Topics: Wider World. (1-3 h)**

Topic varies with instructor.

**HST 312. Jews, Greeks and Romans. (3 h)**

Largely from a Jewish context, the course explores the political, religious, social and philosophical values shaped by the collision between Jews, Greeks, and Romans, from the Hellenistic Period to the Middle Ages.

**HST 315. Greek History. (3 h)**

The development of ancient Greek civilization from the Bronze Age to the end of the Classical Period stressing social institutions, individual character, and freedom of social choice within the framework of cultural, political, and intellectual history.

**HST 316. Rome: Republic and Empire. (3 h)**

A survey of Roman history and civilization from its beginning to about 500 C.E., with emphasis on the conquest of the Mediterranean world, the evolution of the Republican state, the growth of autocracy, the administration of the empire, and the interaction between Romans and non-Romans.

**HST 317. The French Revolution and Napoleonic Empire. (3 h)**

The revolution and wars that constitute one of the pivotal points in modern history.

**HST 318. Weimar Germany. (3 h)**

Art, literature, music, and film of Weimar Germany, 1919-1933, in historical context. German or history credit determined at registration. Also listed as GES 331.

**HST 320. Write and Record! Diaries and Memoirs of the Nazi Holocaust. (3 h)**

Examines a wide range of diaries and memoirs to illuminate the historical period of Nazism, seeking to understand daily life under Nazi rule, the brutality of the perpetrators, and the many responses of Jews forced to live in such circumstances. From Anne Frank's account of hiding in an Amsterdam secret annex to Art Spiegelman's graphic novel of his parent's experience in Auschwitz, the diaries and memoirs of Holocaust victims provide an invaluable resource for historians.

**HST 321. Zionism, Palestine, and Israel in Historical Perspective. (3 h)**

Investigates both the European causes of Zionism and the Middle Eastern consequences of the establishment of the State of Israel. Through our discussion, students will be introduced to many of the scholarly debates over the history, practices, and consequences of Zionism, the State of Israel, and the Israel-Palestinian conflict.

**HST 322. Migrants and Refugees in Modern History. (3 h)**

Explores forced migrations and the development of the concept of refuge from the 16th to 20th centuries, drawing on cases from around the world. Considers how states, empires, and non-governmental organizations have handled migrants and refugees, as well as the lived experiences of displaced individuals.

**HST 323. Wives, Writers, and Witches: Women and Gender in Early Modern Europe, 1500-1800. (3 h)**

Examines the diverse range of women's experiences in early modern Europe, using gender as a lens for analyzing transformations in households, culture, society, and politics between 1500 and 1800. Considers how women negotiated dominant gender ideals and how they contributed to and were impacted by the Renaissance and Reformation, empire, the Scientific Revolution, the Enlightenment, and political revolution.

**HST 324. Fashion in the Eighteenth Century. (3 h)**

Examines the relationship between consumer culture and democratic politics in the eighteenth-century, focusing on Britain, North America, France, and Haiti. Considers laws regulating dress; the relationship between democracy, political resistance, and costume; the construction of political allegiance through clothes and symbols; and the ways fashion mediated ideas about empire, race, and gender.

**HST 325. English Kings, Queens, and Spectacle. (3 h)**

Examines how English royal authority was created, legitimized, performed, and challenged, between the reigns of Henry VIII and George III through ritual, image, and text. Topics include: gender and power; court culture; the press and political revolution; popular politics and propaganda; graphic satire; and the commercialization of politics.

**HST 326. The Industrial Revolution in England. (3 h)**

A study of the social, economic, and political causes and effects of the Industrial Revolution in England. Offered in London.

**HST 327. Profit and Power in Britain. (3 h)**

Examines economic ideas and British society between 1688 and 1914. Topics include connections between consumption and identity; the relationship of morals to markets; the role of gender and the household; knowledge, technology, and the industrial revolution; and the place of free trade in the political imagination.

**HST 328. History of the English Common Law. (3 h)**

A study of the origins and development of the English common law and its legacy to modern legal processes and principles.



**HST 331. The United States in Age of Empire, 1877 - 1919. (3 h)**

Explores the late 19th and early 20th centuries when the United States joined in the global scramble for empire. Examines the domestic and international causes of American imperial expansion; the modes of rule that the U.S. exercised in its formal and informal possessions; and the political and intellectual debates at home and abroad about America's expansion as a world power.

**HST 332. The United States and the Global Cold War. (3 h)**

Considers United States efforts to secure its perceived interests through "nation building" and economic development in Africa, Latin America, the Middle East, and much of Asia during the Cold War and after. Emphasizes the ideological and cultural dimensions of American intervention.

**HST 333. European Diplomacy 1848-1914. (3 h)**

The diplomacy of the great powers, with some attention given to the role of publicity in international affairs. Topics include the unification of Italy and of Germany, the Bismarckian system, and the coming of World War I.

**HST 334. Mystics, Monarchs, and Masses in South Asian Islam. (3 h)**

An introduction to Islam through South Asian social, political, cultural, and intellectual history. (CD)

**HST 335. Hindus and Muslims in India, Pakistan, and Beyond. (3 h)**

Examines the shared yet different, intertwined yet separate histories of the Hindus and Muslims of modern India, Pakistan, Bangladesh, and Sri Lanka primarily over the last two centuries. Explores the checkered existence of the two communities in order to understand diversity and questions of coexistence and conflict. (CD)

**HST 336. Gender and Power in African History. (3 h)**

Examines the close relationship between understandings of gender and power in African societies with particular focus on the last several hundred years. After addressing the sources and methods scholars have used to address these topics, the course examines conceptions of gender and power in pre-colonial African societies, the impact of the colonial period on men and women, the gendered nature of nationalism and independence, and the importance of gender and power to many of Africa's post-colonial challenges. (CD)

**HST 337. Women and Gender in Early America. (3 h)**

History of women and gender roles from 1600 through the Civil War, including the social constructions of femininity and masculinity and their political, economic, and cultural significance. (CD)

**HST 338. Sexuality, Race and Class in the United States since 1850. (3 h)**

History of gender relations from the mid-nineteenth century to the present. Analyzes the varying definitions of femininity and masculinity, the changing notions of sexuality, and the continuity and diversity of gender roles with special attention to race, class, and ethnicity.

**HST 339. Sickness and Health in American History. (3 h)**

Analysis of major trends in health, sickness, and disease within the broad context of social, political, and economic developments. Examines indigenous healing; colonial medicine; emergence of hospitals and asylums; public health; medical ethics; race, class and gender issues; and natural versus high-tech approaches to health care in the 20th century.

**HST 340. Urban Africa. (3 h)**

Examines how urban residents have worked to creatively shape some of sub-Saharan Africa's major transformations. Major topics include the social and cultural fabric of pre-colonial African cities, the impact of colonialism on African towns, cities as sites of revolution and independence, and the contemporary conditions and challenges facing urban residents. While popular imagination suggests that the African past is largely a rural one, many of the continents' most explosive social and cultural transformations have taken place in its cities. (CD)

**HST 341. Africans in the Atlantic World, 1750-1815. (3 h)**

Explores Africans' experience in the Atlantic world (Africa, Europe and the Americas) during the era of the slave trade by examining their encounters with Indians and Europeans and their adjustment to slave traders in West Africa. Also listed as AES 341. (CD)

**HST 343. The Silk Roads. (3 h)**

Explores the global exchanges across land and sea from the Bronze Age to the Early Modern Era, and their impact on the states and stateless societies connected by the Silk Road from China and Japan to the Mediterranean and the British Isles. (CD)

**HST 344. Early Modernity in China. (3 h)**

This course explores historic transformations in Chinese economy, society, thought, and culture from 1500 to 1800. These developments are placed within their local, global, and comparative context. Students read a wide variety of Chinese primary sources in English translation, including philosophical treatises, literary works, letters, diaries, and memoirs, some of which were written by Jesuit missionaries from Catholic Europe. (CD)

**HST 347. The Rise of Asian Economic Power since WWII. (3 h)**

An exploration of how Japan, South Korea, and China became dominant in world economies. Focus on business practices, foreign trade, government policy, and consumer and labor markets in the process of high-speed economic growth. Concludes with examination of recent challenges of national debt, increasing international competition, and aging societies. (CD)

**HST 348. Samurai and Geisha: Fact, Film, and Fiction. (3 h)**

Focuses on two well-known groups in Japanese history, the samurai (warriors) and geisha (entertainers). By analyzing historical studies and primary sources, as well as works of fiction and films about samurai and geisha, the course considers how Japanese and Western historians, novelists, and filmmakers have portrayed the two groups and by implication Japan and its history in the modern period. (CD)

**HST 349. American Foundations. (3 h)**

An interdisciplinary study of American art, music, literature, and social history with particular reference to the art collection at Reynolda House, Museum of American Art. Lectures, discussions, and field trips, including a tour of New York City museums. Term project in American history. Also listed as Art 331, Interdisciplinary Honors 393, 394, and Music 307. Offered at Reynolda House in summer only.

**HST 350. World Economic History: Globalization, Wealth and Poverty, 1500-Present. (3 h)**

Explores the growth of globalization and its role in the creation of wealth and poverty in both developed and underdeveloped nations. Focus on trade, industrialization, and agricultural and technological advances in global contexts. (CD)

**HST 352. Ten Years of Madness: The Chinese Cultural Revolution, 1966 to 1976. (3 h)**

A history of the Chinese Cultural Revolution from 1966 to 1976. Examines the origins, consequences, and collective memories of the catastrophic political events and the social and cultural transformations that took place in China during the last decade of Mao's leadership. (CD)

**HST 353. War and Society in Early America. (3 h)**

Examines the evolution of warfare among the indigenous and colonial societies of North America between 1500 and 1800 and considers the roles of economics, class, gender, race, religion, and ideology in cultures of violence.



**HST 354. The Early American Republic. (3 h)**

A history of the formative generation of the United States. Considers the dramatic transformations of the constitutional, economic, and racial orders, as well as new performances in politics, national identity, gender, and culture.

**HST 356. Jacksonian America 1815-1850. (3 h)**

The United States in the age of Jackson, Clay, Calhoun, and Webster.

**HST 358. Race, Gender and the Courts. (3 h)**

Examines the impact of state and federal court cases upon the evolution of race and gender relations in the U.S. from 1789 to the present. Each case is placed within the political, economic and social historical context for the given time periods. Race includes Native Americans, African Americans, Asian Americans, and Latino Americans. This class will analyze government intervention, inaction, and creative interpretation. (CD)

**HST 359. Prostitutes, Machos, and Travestis: Sex and Gender in Latin American History. (3 h)**

Explores gender and sexuality across 20th century Latin America and the Caribbean. Applies new theoretical developments in gender, masculinity, and LGBT studies to the region's history of race, revolution, labor, dictatorship, and social movements. Cases include the Mexican, Cuban, and Nicaraguan Revolutions and the Dominican and Argentine dictatorships. (CD)

**HST 362. American Constitutional History. (3 h)**

Origins of the Constitution, the controversies involving the nature of the Union, and constitutional readjustments to meet the new American industrialism.

**HST 365. Modern Native American History. (3 h)**

Considers broad historical issues and debates about Native American identity, experiences with and memories of colonialism, cultural preservation and dynamism, and political sovereignty from 1830 to the present. Focuses on individual accounts, tribal case studies, and popular representations of Native people. (CD)

**HST 366. Historic Preservation and Conservation. (3 h)**

Explores the history of the preservation and conservation movements organized to save historic buildings and landscapes in the U.S. and other nations. Examines the laws, international charters, national, statewide, and local agencies, practices, collaborations, and emerging challenges of historic preservation and conservation.

**HST 367. Public History. (3 h)**

Introduces students to the major issues involved in the practice, interpretation, and display of history for nonacademic audiences in public settings. Central themes include controversial historical interpretations, the role of history in popular culture, issues and aims in exhibiting history, and the politics of historical memory. Explores some of the many ways people create, convey, and contest history, major themes in community and local history, and the problems and possibilities of working as historians in public settings.

**HST 368. U.S. Environmental History. (3 h)**

Focuses on human actors and actions while highlighting how the material, or natural, world impacted Americans and shaped the nation. Students will investigate U.S. politics, society, and culture through the lens of the environment while exploring how Americans defined, represented, and used their natural environment over time.

**HST 369. Modern Military History. (3 h)**

Making war in the modern era, with special attention to the social context of military activity. Counts toward the American distribution for majors. Credit not allowed for both HST 369 and MIL 229.

**HST 370. Topics in North Carolina History. (3 h)**

A general chronological survey of North Carolina with emphasis on selected topics. May be repeated for credit if topic varies.

**HST 371. Transgender History, Identity, and Politics in the U.S. (3 h)**

This course explores the experiences of and responses to transgender, gender non-conforming, and intersex (TGI) people in nineteenth-and twentieth-century America. We will examine how scientific/medical authorities, legal authorities, and everyday people have understood and responded to various kinds of gender non-conformity. Same as WGS 305. (CD)

**HST 372. Queer Public Histories. (3 h)**

Explores how public history projects (oral histories, museums, archives, documentaries) document gay, lesbian, and queer communities in the U.S. Discusses how historical and contemporary LGBTQ stories have been collected and examines the various queer identities that emerge through this process. Same as WGS 306.

**HST 373. Anglo-American Relations since 1940. (3 h)**

A study of the relations between the United States and Britain from 1940 to the present. Offered in London.

**HST 374. Protest and Rebellion in Latin America. (3 h)**

A study of the history of protest movements and rebellions in Latin America from primitive and agrarian revolts to mass working class and socialist organizations. (CD)

**HST 375. Black Lives. (3 h)**

Explores both the lived experience and the historical reality of African Americans. Black lives are profoundly shaped by their group experience, influenced in no small part by the role of racism. The biographical approach individuates historical figures struggling to fashion identity. Topics include character development, intimacy, gender roles, public and private personas, self-deceptions or defenses, and personal perceptions of biases. The craft of writing biography is taught throughout the semester. (CD)

**HST 376. Civil Rights and Black Consciousness Movements. (3 h)**

A social and religious history of the African-American struggle for citizenship rights and freedom from World War II to the present. (CD)

**HST 378. Race, Memory, and Identity. (3 h)**

Explores the collective memory and identity of American-Indian and African-American communities and their response to historical trauma in their cultural imagination, spirituality, and political and social activism. Also listed as REL 348. (CD)

**HST 380. America at Work. (3 h)**

Examines the American entrepreneurial spirit within the broader context of industrial, social, and economic change from the colonial period to the present and explores the social and cultural meanings attached to work and workers, owners and innovators, businesses and technologies, management and leadership. Also listed as ENT 380. (CD)

**HST 381. Religious Utopias and the American Experience. (3 h)**

Religious groups of many different origins have found in North America an open space for creating settlements that would embody their ideals. This course surveys a range of such 18th- and 19th-century utopian communities, including Moravians, Rappites, Shakers, and the Oneida and Amana colonies. Also listed as REL 346.

**HST 382. Religion in the Development of Higher Education. (3 h)**

Examines the role of religious groups in the founding of American colleges and universities and explores how their role has changed across history up through contemporary trends and issues. Major themes include the heritage of religion in European higher education; institutions of higher education founded by specific American religious groups; religion in the liberal arts curriculum; religious activities in student life; the relationship of colleges and universities with religious sponsors and constituents, focusing on controversies such as science and religion; the impact of universities on liberal arts colleges; and the trends toward growth and "secularization" in the last 50 years.

**HST 384. Global Outlaws History since 1500. (3 h)**

Examines the motivations, ideologies, goals, and behavior of those who have been deemed "outlaws" to international society since 1500, including pirates, terrorists, smugglers, war criminals, and violators of copyright. Analyzes the role of power in creating the global regimes that define and target such activities.

**HST 385. History through Film: Bollywood and the Making of Modern India. (3 h)**

Juxtaposes historical films made by the world's largest film industry base out of Bombay/Mumbai with textual primary sources and secondary historical works and seeks to understand films as both interpretations and sources of history. Explores specific themes such as nation, gender, caste, and community that are critical to understanding modern Indian and South Asian history and culture. (CD)

**HST 387. The Last Great Muslim Empires. (3 h)**

Examines, in a comparative way, central themes in the history of the Ottoman, Mughal, and Safavid Empires in the early modern period (1400-1800). Considers the ways in which Muslim rulers fostered political legitimacy, ruled over non-Muslim and heterodox subject populations, and recruited persons of diverse religious and ethnic background into state service. (CD)

**HST 388. Nation, Faith, and Gender in the Middle East. (3 h)**

Traces the development of nationalism and its interaction with religious, transnational, and gender identities in the Middle East in the 19th and 20th centuries. Topics include Zionism, Abramism, Turkish nationalism, and Islamic revivalism. (CD)

**HST 389. The British Empire in the Middle East. (3 h)**

Covering the period from the late 18th to late 20th centuries, this course considers British involvement in the Middle East, exploring the political, economic, social and cultural facets of imperial power, decolonization and post-colonial international relations. (CD)

**HST 390. Research Seminar. (4 h)**

Offered by members of the faculty on topics of their choice. A paper is required.

**HST 391. Making History. (3 h)**

Seminar explores how historians make history through analysis, synthesis, and interpretation. Open to all students. All honors students must take HST 391.

**HST 392. Individual Research. (4 h)**

Writing of a major research paper. May be taken in lieu of HST 390. P-POI.

**HST 395. Internship in History. (1-3 h)**

Internship in the community that involves both hands-on experience and academic study. Juniors and seniors only. P-POI.

**HST 397. Historical Writing Tutorial. (1.5 h)**

Individual supervision of historical writing to improve a project initiated in HST 390 or HST 392. Does not count toward major or minor requirements. P-POI.

**HST 398. Individual Study. (1-3 h)**

Project for a qualified student in an area of study not otherwise available in the department; subject to approval. Work must be equivalent to an upper-level course.

**HST 399. Directed Reading. (1-3 h)**

Concentrated reading in an area of study not otherwise available. P-POI.

## Faculty

**Chair and Professor** Monique E. O'Connell

**Presidential Endowed Chair in Southern History, Professor, Dean of the College** Michele K. Gillespie

**Professors** Simone M. Caron, Michael L. Hughes, Jeffrey D. Lerner, Anthony S. Parent Jr.

**The Michael H. and Deborah Rubin Presidential Chair of Jewish History and Associate Professor** Barry Trachtenberg

**Associate Professors** Lisa M. Blee, Benjamin A. Coates, Robert I. Hellyer, Stephanie Koscak, Nathan A. Plageman, M. Raisur Rahman, John A.

Ruddiman, Susan Z. Rupp, Penelope J. Sinanoglou, Charles L. Wilkins, Mir Yarfitz, Qiong Zhang

**Assistant Professors** Alisha Hines

**Visiting Professor** Charles Thomas

**Visiting Assistant Professors** Daniel Burton-Rose, Luca Provenzano

## History, B.A.

### Requirements

Consists of a minimum of 31 hours and must include:

Code	Title	Hours
HST 390	Research Seminar	4
or HST 392	Individual Research	
Select three hours in pre-modern history:		3
HST 206	The Early Middle Ages	
HST 207	The High Middle Ages Through the Renaissance	
HST 209	Europe: From Renaissance to Revolution	
HST 217	France to 1774	
HST 219	Germany to 1871	
HST 223	The British Isles to 1750	
HST 230	Russia: Origins to 1865	
HST 242	Middle East before 1500	
HST 244	Pre-Modern China to 1850	
HST 246	Japan before 1600	
HST 250	Premodern South Asia	
HST 254	American West to 1848	
HST 258	Colonial America	
HST 268	African History to 1870	
HST 284	Latin America's Colonial Past	
HST 304	Travel, History and Landscape in the Mediterranean	
HST 305	Medieval & Early Modern Iberia	
HST 307	Italian Renaissance	
HST 308	World of Alexander the Great	
HST 312	Jews, Greeks and Romans	
HST 315	Greek History	
HST 316	Rome: Republic and Empire	

HST 323	Wives, Writers, and Witches: Women and Gender in Early Modern Europe, 1500-1800
HST 324	Fashion in the Eighteenth Century
HST 325	English Kings, Queens, and Spectacle
HST 328	History of the English Common Law
HST 341	Africans in the Atlantic World, 1750-1815
HST 344	Early Modernity in China
HST 353	War and Society in Early America
HST 387	The Last Great Muslim Empires
Select three hours in each of the following three fields: 9	
U.S. History	
European History	
African, Asian, Latin American, or Middle Eastern History	

History courses HST 101, HST 102, HST 103, HST 104, HST 105, HST 106, HST 107, HST 108, HST 109, HST 110, HST 111, HST 112, HST 113, HST 114, HST 120, as well as those numbered 390 and above count toward the major but cannot be used to meet the distributional or pre-modern requirements.

Majors may count only two courses numbered 100-150 toward the required 31 hours.

Majors may include within the required 31 hours up to six hours of advanced placement or comparable work and up to six hours of any combination of HST 395, HST 398, and HST 399, other than the hours earned in HST 397. The student must take at least 15 hours of class work in history at Wake Forest University and have a GPA of 2.0 in history to graduate with the major.

Courses taken pass/fail do not meet the requirements for the major or minor.

Students who are history majors or minors may elect to complete a thematic concentration as part of their program of study. Concentrations require 9 hours of coursework, but do not require any additional hours beyond those needed for the major or minor. Students declaring a concentration must do so prior to the beginning of their final semester. Concentrations are offered in the following specializations:

1. Cultural/Intellectual History
2. Economics, Trade, and Commerce
3. Gender/Sexuality/LGBTQ
4. Global/Transnational History
5. International Relations and Military
6. Jewish History
7. Politics, Governance, and Law
8. Religion and Society
9. Science, Medicine & Technology
10. Social History
11. Individualized Concentration

To complete a concentration, students must select courses in consultation with their major or minor adviser, submit an application to the department, and earn a 'C' in each course. Students who complete the requirements for a concentration will be awarded a certificate by the department and have the concentration included on their college transcript.

## Honors

Highly qualified majors should apply for admission to the honors program in history. To be graduated with the designation "Honors in History," the student must complete HST 391, present an honors-quality research paper, successfully defend the paper in an oral examination, and earn an overall grade point average of 3.3 with an average of 3.5 on work in history. For additional information, students should consult members of the department.

## History, Minor Requirements

Requires 18 hours. Minors may count only two courses numbered 100-150 toward the required 18 hours and must take at least 9 hours of course work in history at Wake Forest University.

Courses taken pass/fail do not meet the requirements for the major or minor.

Students who are history majors or minors may elect to complete a thematic concentration as part of their program of study. Concentrations require 9 hours of coursework, but do not require any additional hours beyond those needed for the major or minor. Students declaring a concentration must do so prior to the beginning of their final semester. Concentrations are offered in the following specializations:

1. Cultural/Intellectual History
2. Economics, Trade, and Commerce
3. Gender/Sexuality/LGBTQ
4. Global/Transnational History
5. International Relations and Military
6. Jewish History
7. Politics, Governance, and Law
8. Religion and Society
9. Science, Medicine & Technology
10. Social History
11. Individualized Concentration

To complete a concentration, students must select courses in consultation with their major or minor adviser, submit an application to the department, and earn a 'C' in each course. Students who complete the requirements for a concentration will be awarded a certificate by the department and have the concentration included on their college transcript.

## Interdisciplinary Honors (HON)

A series of seminar courses of an interdisciplinary nature is open to qualified undergraduates. Most of these seminars are team-taught by faculty representing diverse academic disciplines. Students interested in admission to any one of these seminars should consult the coordinator.

## Courses

### Interdisciplinary Honors (HON)

#### HON 131. Approaches to Human Experience I. (3 h)

An inquiry into the nature and interrelationships of several approaches to man's experience, represented by the work of three such minds as Leonardo da Vinci, Dante, Klee, Lorenz, Confucius, Dostoevsky, Descartes, Goya, Mozart, Jefferson, and Bohr. Seminar discussion based on primary and secondary sources, including musical works and paintings. Written reports and a term paper required. Offered in alternate years.

#### HON 132. Approaches to Human Experience II. (3 h)

An inquiry into the nature and interrelationships of several approaches to man's experience, represented by the work of three such minds as Leonardo da Vinci, Dante, Klee, Lorenz, Confucius, Dostoevsky, Descartes, Goya, Mozart, Jefferson, and Bohr. Seminar discussion based on primary and secondary sources, including musical works and paintings. Written reports and a term paper required. Offered in alternate years.

#### HON 133. Approaches to Human Experience II. (3 h)

A parallel course to HON 131 and 132, concentrating on the work of a different set of figures such as Einstein, Galileo, Keynes, Pascal, Camus, Picasso, Ibsen, Stravinsky, Sophocles, and Bach. Offered in alternate years.

#### HON 134. Approaches to Human Experience II. (3 h)

A parallel course to HON 131 and 132, concentrating on the work of a different set of figures such as Einstein, Galileo, Keynes, Pascal, Camus, Picasso, Ibsen, Stravinsky, Sophocles, and Bach. Offered in alternate years.

#### HON 236. The Force of Impressionism. (3 h)

Impressionism and its impact on modern painting and literature, with attention to origins and theories of style. Painters to include Manet, Monet, Renoir, Degas, and Cezanne. Writers to include Baudelaire, Flaubert, Mallarmé, James, Pound, Joyce, and Woolf.

#### HON 237. The Scientific Outlook. (3 h)

An exploration of the origins and development of the scientific method and some of its contemporary applications in the natural and social sciences and the humanities.

#### HON 238. Romanticism. (3 h)

Romanticism as a recurrent characteristic of mind and art and as a specific historical movement in Europe and America in the late eighteenth and nineteenth centuries. Emphasis on primary materials in philosophy, literature, music, and painting.

#### HON 240. Adventures in Self-Understanding. (3 h)

Examination and discussion of significant accounts of the quest for understanding of the self, in differing historical periods, cultural contexts, and genres. Among figures who may be discussed are Augustine, Dante, Gandhi, Montaigne, Descartes, Pascal, and selected modern writers.

#### HON 241. The Tragic View. (3 h)

The theory of tragedy in ancient and modern times; the expression of the tragic in literature, art, music, theatre, and film.

#### HON 242. The Comic View. (3 h)

The theory of comedy in ancient and modern times; the expression of the comic in literature, art, music, theatre, and film.

#### HON 247. The Mythic View. (3 h)

The nature of myth through creation and hero myths; the uses to which myths have been put in different historical periods; various modern explanations of myth (literary, religious, anthropological, psychoanalytic, social, and historical).

#### HON 248. The Ironic View. (3 h)

An investigation of the ironic view of life in literature, art, history, theater, and film.

#### HON 257. Images of Aging in Humanities. (3 h)

Multidisciplinary presentation and discussion of portrayals of aging in selected materials from several of the liberal arts: philosophical and religious perspectives; selections from literature and the visual arts; historical development of perceptions of aging; imaging of aging in contemporary culture.

#### HON 258. Venice in Art and Literature. (3 h)

An exploration of what Venice has meant to nonnative artists and writers, and what they have made of it. Artists and writers include Byron, Turner, Ruskin, Henry James, Sargent, Whistler, Proust, Mann, and others.

#### HON 260. Rethinking Space, Place, and Gender in the City. (3 h)

Explores the intersection of feminist theory, feminist geography, urban design, and anthropology, with the goal of developing strategies for activating spaces that serve all citizens.

#### HON 265. Humanity and Nature. (3 h)

A multidisciplinary exploration of relations of human beings to nature, and of scientific, economic, and political factors in current environmental concerns. Selected religious, classical, and philosophical texts; works of visual art; selected discussions of ecology and human responsibility. Also listed as HMN 365.

#### HON 281. Directed Study. (3 h)

Readings on an interdisciplinary topic approved by the Committee on Honors; presentation of a major research or interpretive paper based on these readings, under the direction of a faculty member; an oral examination on the topic, administered by the faculty supervisor and the Committee on Honors. Eligible students who wish to take this course must submit a written request to the Committee on Honors by the end of the junior year. Not open to candidates for departmental honors.

#### HON 285. Performance Art and Theory. (3 h)

Introduction to the theory of performance art and its practice, with attention to its interdisciplinary underpinnings in art, music, dance, and theatre. Student performances required.

#### HON 310. The Medieval World: Special Topics. (3 h)

A team-taught interdisciplinary course spanning the Middle Ages (500-1500) which considers artistic and/or literary representations and texts in the context of political, historical, or religious culture of the medieval period in Western and non-Western areas of the world. The specific content is determined by the individual instructors.

#### HON 365. Literature, Song, and Folklore in Scotland, Ireland, and Appalachia. (3 h)

A study of the diaspora of Scottish and Irish literature, song, and folklore to the Appalachian region of the United States from the 17th Century to the Present.

#### HON 390. Postmodern Thought and Expression. (3 h)

An exploration of postmodern philosophy, literature, and art, beginning with Nietzsche, Foucault, and Derrida, and extending into experiments in literature and art of the late twentieth and early twenty-first centuries.

#### HON 393. American Foundations I. (3 h)

Interdisciplinary study of American art, music, literature, and social history with particular reference to the art collection at Reynolda House Museum of American Art. Lecture and discussion. Also listed as ART 331, HST 349, and MUS 307. Offered at Reynolda House in summer only. English majors may receive credit for ENG 302. Major credit in any department dependent upon staffing by that department.



**HON 394. American Foundations II. (3 h)**

Interdisciplinary study of American art, music, literature, and social history with particular reference to the art collection and/or exhibitions at Reynolda House Museum of American Art. Lecture and discussion. Also listed as ART 331, HST 349, and MUS 307. English majors may receive credit for ENG 302. Major credit in any department dependent upon staffing by that department.

**Faculty**

**Coordinator, Professor of English** Barry Maine

**Interdisciplinary Humanities (HMN)**

Interdisciplinary Minor

The minor in Interdisciplinary Humanities explores the enduring centrality of humanity in artistic, literary, and intellectual manifestations from diverse geographical and historical contexts. Courses focus on the intellectual roots of both Western and non-Western civilizations, the emergence of philosophical concepts, and the development of social values and beliefs across time and space.

**Contact Information**

Interdisciplinary Humanities (<http://college.wfu.edu/humanities/>)  
Reynolda Hall 102  
Phone 336-758-4497

**Programs**  
**Minor**

- Interdisciplinary Humanities, Minor

**Courses****Interdisciplinary Humanities (HMN)****HMN 160. Contemporary Venetian Experience. (1.5 h)**

Social, artistic and environmental aspects of life in contemporary Venice. Includes site visits, guest lectures, and interviews with Venetians. Taught only in Venice. Pass/fail.

**HMN 170. Contemporary Spanish Experience. (1.5 h)**

Social, political, cultural, and environmental factors of life in Spain today. Taught in Salamanca only. Pass/fail only.

**HMN 180. Contemporary London Experience. (1.5 h)**

Social, political, cultural, and environmental factors of life in London today. Taught only in London. Pass/fail.

**HMN 186. Contemporary Chilean Experience. (1.5 h)**

Social, political, cultural, and environmental factors of life in Chile today. Pass/fail. Taught in Chile only.

**HMN 190. Contemporary Viennese Experience. (1.5 h)**

Social, cultural, and environmental factors of life in contemporary Vienna. Includes site visits, guest lectures and interviews with Viennese. Taught only in Vienna. Pass/Fail only.

**HMN 200. Introduction to Humanities: Themes in Literature, Culture, and Film. (3 h)**

An introduction through literature and film to the history, principles, and concepts of the Humanities, using as its framework an examination of such topics as dystopia and utopia, the influence of Classical principles on contemporary Western cultures, social justice and human rights in literature and film, and other topics central to the humanities. Literary and film analysis will explore how cultural values and beliefs are expressed in media and writing, as well as how these beliefs are manifested in popular culture. The course will include creative writing exercises that explore various literary tropes and humanistic themes. (D)

**HMN 211. Dialogues with Antiquity. (3 h)**

Introduction to key ideas and concepts from ancient cultures and their legacies in medieval, modern, and contemporary societies through an interdisciplinary lens. Topics vary with the instructor. (D)

**HMN 212. Reading the Modern World. (3 h)**

Analyzes pivotal moments in modern and contemporary world history through artistic, literary, and cultural manifestations. Course topics vary with the instructor and may include the rise of nationalism and western democracy, the development of European colonialism, and the social, political, and religious causes of international conflicts from world wars to terrorism. (D)

**HMN 213. Studies in European Literature. (3 h)**

Texts studied are by such authors as Dante, Montaigne, Cervantes, Goethe, Dostoevsky, and Camus. (D)

**HMN 219. Introduction to Japanese Literature. (3 h)**

Explores Japanese literature of the modern and contemporary periods. The course examines ways in which literature reveals underlying Japanese values and provides commentary on social, cultural, class, sexuality and gender-based tensions in Japanese society. Course topics include narratives of Japanese cultural and historical development and tropes of modernity in film, art, and culture. (CD, D)

**HMN 220. Historical Perspectives on the Humanities. (3 h)**

Introduction to the concepts and methodology of the curriculum inspiring the Pro Humanitate motto. Investigation of the historical development of the humanities as an academic field founded in the principles of the liberal arts and of its relationship to theology, natural science, and social science.

**HMN 223. African and Caribbean Literature. (3 h)**

Examines works by writers from Africa and the Caribbean to investigate the intersection of history and personal history, and the role of race, class, and gender in the construction of cultural identity in the colonial and the postcolonial context. (CD,D)

**HMN 225. Literature, Travel, and Discovery. (3 h)**

Explores various works, primarily in translation, from Homer to the present that focuses on the relationship between travel and discovery, especially as travel establishes the ongoing connection between the sacred and the profane for both guest and host.

**HMN 226. Interdisciplinary Approaches to Contemporary Fiction. (3 h)**

Examines the formal and thematic developments of the short story and the novel, focusing on fiction's engagement with history, culture, and society from a transnational and interdisciplinary perspective. (CD, D)



**HMN 227. Engaging the Humanities: Social Justice and Equity in Communities. (3 h)**

This course articulates and experiments with frameworks in the Humanities for critically and compassionately engaging pressing social concerns. Course activities include learning to ethically enter into communities, to remain accountable, and to imagine a more equitable society. Readings from contemporary social justice, ethics and literary scholars, in addition to case studies, will provide an introduction to approaches to navigating social contexts and collaborating with community partners. (CD)

**HMN 228. Viennese Culture 1860-1914. (3 h)**

A study of late nineteenth and early twentieth century Vienna as reflected in the matrix of the city's civic and artistic life. Offered in Vienna.

**HMN 232. Italy in Literature. (3 h)**

Readings and discussions in fictions, drama, and poetry that highlight trends and genres in Italian literature from the Middle Ages through contemporary times, and/or literature that features Italy as seen through the eyes of foreigners. Taught only in Venice.

**HMN 262. Racism, Heterosexism, and Religious Intolerance. (3 h)**

A comparative cultural examination through fiction and non-fiction sources of the initiation, maintenance, and treatment of prejudice, with emphasis on American society from the Jim Crow era to the present.

**HMN 272. Literature and Ethics. (3 h)**

Exploration of the possibility of applying ethical frameworks to literature and the challenges raised in fields including the health humanities and bioethics that can challenge literary analysis. The course will explore ethics through prose fiction and nonfiction, poetry, drama, and other writing. Representative authors may include Shakespeare, Hawthorne, Austen, Browning, Dostoevsky, Silone, Nabokov, Miller and Ishiguro. (CD, D)

**HMN 290. The Humanities through Film, Literature and Media. (3 h)**

Using film, literature and media genres as tropes for analysis, an exploration of new and innovative approaches to the humanities in the late 20th and early 21st century including public humanities, digital humanities, and environmental humanities and examining cultural studies, interdisciplinary studies, and gender and sexuality studies as approaches for investigating social justice, environmental justice, and social action. (CD)

**HMN 291. The Humanities and History: Intersections of Public History and the Public Humanities. (3 h)**

Exploration of approaches to public engagement developed in humanities disciplines and an examination of contributions of disciplines in the humanities and the liberal arts to civic discourse and to public engagement. The course includes design and implementation of a local public humanities project.

**HMN 292. Environmentalism, the Humanities, and Gender. (3 h)**

Survey of the global spread of Environmentalism, with an emphasis on its evolution as a disciplinary field that includes eco-feminism and feminist perspectives on the environment. Topics include the investigation of women's roles in environmental history and the construction of global environmental narratives. Also listed as WGS 309.

**HMN 294. Digital Approaches in the Humanities. (1.5, 3 h)**

An introduction to the concepts and tools of the digital humanities. Projects in the digital humanities include exercises that employ the use of these tools to examine data and narratives of the humanities, including disciplinary approaches in literature, public history, women's, gender, and sexuality studies, and media studies.

**HMN 295. Social Entrepreneurship and the Humanities: Innovation, Public Engagement, and Social Change. (3 h)**

Introduction to the role played by the humanities in social entrepreneurship, exploring the premise that norms can be developed for the application of the humanities, and that the knowledge derived in this process can empower and be a tool in community-based engagement and social change. Course includes a social entrepreneurial project in the local community. Also listed as ENT 321.

**HMN 365. Humanity and Nature. (1.5, 3 h)**

Examines the relationships between different social groups and nature from a variety of perspectives: philosophical, scientific, religious, political, legal, and aesthetic with a focus on how various humanistic perspectives articulate a sustainable and viable relationship with nature. The class engages religious, classical, and philosophical texts; visual art; discussions of ecology and human responsibility.

**HMN 370. Medicine and the Humanities. (3 h)**

Explores ideas and questions at the intersection of medical science and the humanities. Topics include the expression of disease in literature and art; the ethics of genetics research; the interplay of religion and medicine; the economics of health care; and the interplay between medical research and care and issues of race, gender, sexuality, colonialism, and disability.

**HMN 374. Humanities and Law. (3 h)**

Examines the common roots of law, philosophy, literature, and politics. Focuses on the interpretative strategies and critical skills that legal professionals, humanists, and artists share.

**HMN 375. Urban Design and the Human Experience. (3 h)**

A study of the role that urban design and planning play in shaping the urban experience, and the impact of design choices on the evolution of the cities and their possible futures. The course will explore human potential and expression in the built environment, drawing from literary and non-fictional accounts of life in cities. Observations and design exercises in local neighborhood and community spaces will serve as a basis for understanding the role of place in urban culture and its ability to shape the human experience. (CD)

**HMN 385. Special Topics. (1-3 h)**

Selected themes and approaches to the study of human culture that bridge disciplinary and/or national boundaries. Can be repeated for credit.

**HMN 389. Directed Reading and Research. (1.5 h)**

A research project in the humanities that pursues a topic studied in one of the courses of the minor and a synthesis of views from a least two traditional disciplines.

**HMN 390. Directed Writing. (1.5 h)**

Capstone project in the minor. P - HMN 389.

## Faculty

**Director** José Luis Venegas

**Wake Forest Professor of the Humanities** Corey D.B. Walker

**Professor** José Luis Venegas

**Associate Professors** Eric Ashley Hairston, David P. Phillips

**Mellon Assistant Professor** William H. Mosley

**Assistant Professor** Michael K. Lamb

**Mellon Teacher-Scholar Postdoctoral Fellow** Rebecca Croog

## Interdisciplinary Humanities, Minor Requirements

Candidates for the minor are required to take the following courses for a total of 15 hours.

Code	Title	Hours
HMN 200	Introduction to Humanities: Themes in Literature, Culture, and Film	3
HMN 211	Dialogues with Antiquity	3
HMN 212	Reading the Modern World	3
Select six hours of Approved Electives		6

HMN 389 and HMN 390, a year-long research project, can count as an elective towards the 15 hour requirement. When these courses are in progress, the student is assigned a minor adviser who assists in planning the purpose and detail of the student's project.

## Electives for Interdisciplinary Humanities

Code	Title	Hours
HMN 213	Studies in European Literature	3
HMN 219	Introduction to Japanese Literature	3
HMN 220	Historical Perspectives on the Humanities	3
HMN 223	African and Caribbean Literature	3
HMN 225	Literature, Travel, and Discovery	3
HMN 226	Interdisciplinary Approaches to Contemporary Fiction	3
HMN 227	Engaging the Humanities: Social Justice and Equity in Communities	3
HMN 228	Viennese Culture 1860-1914	3
HMN 232	Italy in Literature	3
HMN 262	Racism, Heterosexism, and Religious Intolerance	3
HMN 272	Literature and Ethics	3
HMN 290	The Humanities through Film, Literature and Media	3
HMN 291	The Humanities and History: Intersections of Public History and the Public Humanities	3
HMN 292	Environmentalism, the Humanities, and Gender	3
HMN 294	Digital Approaches in the Humanities	1.5,3
HMN 295	Social Entrepreneurship and the Humanities: Innovation, Public Engagement, and Social Change	3
HMN 365	Humanity and Nature	1.5,3
HMN 370	Medicine and the Humanities	3
HMN 374	Humanities and Law	3
HMN 375	Urban Design and the Human Experience	3
HMN 385	Special Topics	1-3
HMN 389	Directed Reading and Research	1.5
HMN 390	Directed Writing	1.5

## Interdisciplinary Major (IND)

Interdisciplinary Major

Highly qualified students may design an Interdisciplinary Major, with a unified focus, on a topic not available as a regular major.

## Contact Information

Interdisciplinary Major (<http://college.wfu.edu/academics/opportunities/design-your-own-major/>)

## Programs Majors

- Interdisciplinary Studies, B.A.
- Interdisciplinary Studies, B.S.

## Courses

### Interdisciplinary Major (IND)

**IND 399. Senior Project. (3 h)**

An independent project carried out under the supervision of a faculty member. (Required for all IND Majors) P - POI.

## Faculty

**Coordinator: Eric Stottlemeyer, Associate Teaching Professor of English**

## Interdisciplinary Studies, B.A.

### Requirements

The **Interdisciplinary Major** consists of courses offered by two or more departments, for a minimum of 42 hours, and must include IND 399. A second major may not be declared. A minor may be declared; however, courses used in the interdisciplinary major may not also meet requirements in the minor.

Proposals should be submitted to the Coordinator only after students have completed 40 hours at Wake Forest, though planning can and should begin sooner. Guidelines for submitting proposals can be found on the Interdisciplinary Major website (<http://college.wfu.edu/academics/opportunities/design-your-own-major/>). Proposals are reviewed by the Open Curriculum Committee, which reserves the right to accept or reject them.

## Interdisciplinary Studies, B.S.

### Requirements

The **Interdisciplinary Major** consists of courses offered by two or more departments, for a minimum of 42 hours, and must include IND 399. A second major may not be declared. A minor may be declared; however, courses used in the interdisciplinary major may not also meet requirements in the minor.

Proposals should be submitted to the Coordinator only after students have completed 40 hours at Wake Forest, though planning can and should begin sooner. Guidelines for submitting proposals can be found on the Interdisciplinary Major website (<http://college.wfu.edu/academics/opportunities/design-your-own-major/>). Proposals are reviewed by the Open Curriculum Committee, which reserves the right to accept or reject them.

# International Studies (INS)

## Interdisciplinary Minor

The minor provides an opportunity to explore the various facets of an increasingly globalized world. It is designed to expose students to a variety of trans-regional themes on the one hand and particular knowledge of specific regions on the other. Building upon an approved study abroad experience, students are able to develop a broader understanding of the complex and interdependent global forces that shape our current world. The minor concludes with the capstone seminar (INS 250) in which students in their senior year are given an opportunity to pull together many of the themes that they have studied in the relevant courses and explore a particular research topic in great detail through the writing of a major paper.

## Contact Information

International Studies (<https://global.wfu.edu/global-campus/international-minors/international-studies/>)

## Programs Minor

- International Studies, Minor

## Courses

### International Studies (INS)

#### INS 101. Overseas Study. (1-3 h)

Directed reading and/or field work as part of an approved overseas program under the supervision of a professor, instructor, or the program director/coordinator or the Center for Global Programs and Studies. P-POI.

#### INS 105. City as Text. (1-3 h)

Introduction to the historical, cultural, and physical geography of the host city for Wake Forest study abroad programs. Participants travel throughout the city visiting plazas, neighborhoods, museums and other points of interest. Specific attention is given to areas of artistic, architectural, cultural, and historical significance. Students maintain journals and complete reflection papers. Only offered at Wake Forest study abroad locations.

#### INS 120. Language and Culture Study. (1-3 h)

Provides communicative and cultural training to students studying on Wake Forest study abroad programs in locations where the languages of the host country is not currently taught at Wake Forest. Course intended to ensure students are not linguistically isolated while abroad; prepares students to interact with locals and increase their ability to reflect on the cross-cultural experience of living in the host country. Topics include explorations of language, culture, art, history, film, and current events. Only offered at Wake Forest study abroad locations.

#### INS 130. Global Village Living and Learning Community. (1-3 h)

This interdisciplinary course is designed to create discussion around global issues and global citizenship for residents of the Global Village Living and Learning Community. Students are exposed to a variety of ways to view global citizenship through five global competencies - expression, engagement, discourse, inquiry, and connections. This class is designed to be taken twice, once in the Fall semester and once in Spring semester.

#### INS 140. United Nations/Model United Nations. (1.5 h)

Exploration of the history, structure, and functions of the United Nations including current economic, social, and political issues. An in-depth analysis of one country in the UN and attendance at the Model UN Conference. May be taken twice for credit. Pass/Fail only.

#### INS 150. Preparing for Cross-Cultural Engagement Abroad. (1 h)

Introduces students to theoretically-based issues and skills needed for understanding and interacting with people in other cultures. Taken in the semester before the student studies abroad. Pass/Fail only. P-POI.

#### INS 151. Cross-Cultural Engagement Abroad. (1 h)

Gives students the opportunity to apply knowledge and skills gained from INS 150 to develop a better understanding of cultural variables such as value orientations, communication styles, and nonverbal communication. Taken while the student is abroad. Pass/Fail only. P-POI.

#### INS 152. Cross-Cultural Engagement and Re-entry. (1 h)

Students reflect on their experience abroad and the cultural learning that occurred there. They also develop strategies for dealing with re-entry and applying the lessons learned now and in the future. Taken in the semester after the student has studied abroad. Pass/ Fail only. P-POI.

#### INS 153. Intro US and Univ Culture. (1-3 h)

This course provides students with a better understanding of the framework and cultural milieu of life in the U.S. and at U.S. universities in order to help them make sense of the cultural differences they (will) encounter in academics, customs, politics, media, and sports, among others. Taken by international students prior to or during their first semester at Wake Forest. Pass/Fail only.

#### INS 154. Community Based Global Learning. (0-3 h)

Focuses on understanding community based global service engagement in a global context. Students explore the history of service, charity, and ethical service around the world. Using case studies, students consider the role of volunteers as effective global change agents, causes of and barriers to success for global service providers, and the structure and operation of international nonprofit organizations. The course introduces students to theoretically-based issues and skills needed for understanding and interacting with people from cultures different from their own.

#### INS 170. Special Topics. (0-3 h)

Topics that are not covered in other international studies courses. May be repeated for up to six hours if the topic changes.

#### INS 228. Individual Study. (1-3 h)

Intensive research leading to the completion of an individual project conducted under the supervision of a faculty member. Students are responsible for initiating the project and securing permission of an appropriate faculty member. P-POI.

#### INS 229. Internship in International Studies. (1-3 h)

Field work directly related to international issues in a public or private setting under the supervision of a faculty member. Related readings and an analytical paper are minimum requirements. Students are responsible for initiating the project and securing the permission of an appropriate instructor. P-POI.

#### INS 250. Introduction to International Studies. (3 h)

An overview of key themes related to the study of international issues. Topics include but are not limited to migration, urbanization, economic development, trade, foreign aid, nationalism and identity, consumerism, gender and culture. (CD)

**INS 260. Seminar in Global Trade and Commerce Studies. (3 h)**

Provides integrative knowledge in global trade and commerce. Focuses on understanding the global environment and the variety of issues associated with global trade and commerce.

**INS 349. Japanese and American Culture: Cross-Cultural Communication. (3 h)**

An exploration of communication differences between the Japanese and the Americans. Japanese and American values, behavior, and beliefs will be compared in determining effective methods for cross-cultural communication. Special emphasis will be placed on examining factors leading to miscommunication and the development of techniques for overcoming cultural barriers. Credit not given for both INS 349 and COM 351A. Also listed as COM 351A. (CD)

**INS 363. Global Capitalism. (3 h)**

An analysis of changing patterns of industrial organization, market, and labor relations, and institutional frameworks that have resulted from the growth of an integrated global capitalist economy. Also listed as SOC 363.

**INS 365. Technology, Culture, and Change. (3 h)**

Examines the interrelated forces that shape change in organizations and societies; from the emergence of capitalist markets to the systems, controls, and information revolution of the 21st century. Also listed as SOC 365.

## Faculty

**Coordinator, Professor of Sociology and International Studies** Ian Taplin

**Research Associate Professor** Nelson Brunsting

**Part-time Lecturers** Porshe Chiles, Kara Rothberg

## International Studies, Minor

### Requirements

Consists of a total of 18 hours which must include:

Code	Title	Hours
INS 250	Introduction to International Studies *	3
Select 15 additional hours from approved International Courses including:		15
Three courses from Global Thematic Studies		
Two courses from Regional Studies		
Approved Study Abroad Program **		3

\* Must be taken in either the fall or spring semester of the senior year, and it must follow completion of the other aforementioned requirements.

\*\* In which a minimum of three credits are earned. International students residing in the U.S. in a non-immigrant visa status are exempt from the study abroad requirement.

No more than six of the 18 hours for the minor may be taken from a single discipline.

The current list of approved courses is available in the Center for Global Programs and Studies and on its website. Additional elective courses may have been approved since publication of this bulletin. The program coordinator maintains a complete list of all approved elective courses. For course descriptions, see the relevant department's listings in this publication.

## Global Thematic Studies

Three courses (preferably selected from two categories). Categories include cultural studies (religion, music, and literature), socioeconomic studies, and geopolitical studies.

Code	Title	Hours
<b>Cultural Studies</b>		
ANT 336	Myth, Ritual and Symbolism	3
ANT 350	Language, Indigeneity and Globalization	3
ANT 355	Language and Culture	3
ANT 360	Anthropology of Global Health	3
ANT 383 & ANT 384	Field program in Cultural Anthropology and Field Program in Cultural Anthropology	6
ART 260	Classics of World Cinema	3
COM 350	Intercultural Communication	3
COM 351A	Comparative Communication: Japan	3
COM 354	International Communication	3
COM 370	Special Topics (when topic is Cross-Cultural Communication in Multinational Organizations)	3
ENG 358	Postcolonial Literature	3
ENG 359	Studies in Postcolonial Literature	3
FRH 216	Studies in French and Francophone Literature and Culture	3
FRH 370	Seminar in French and Francophone Studies	3
HMN 225	Literature, Travel, and Discovery	3
HMN 290	The Humanities through Film, Literature and Media	3
HST 256	The U.S and the World, 1763-1914	3
HST 257	The U.S and the World since 1914	3
HST 341	Africans in the Atlantic World, 1750-1815	3
HST 343	The Silk Roads	3
HST 384	Global Outlaws History since 1500	3
INS 150 & INS 151 & INS 152	Preparing for Cross-Cultural Engagement Abroad and Cross-Cultural Engagement Abroad and Cross-Cultural Engagement and Re-entry (all 3 courses must be taken to count for the minor)	3
INS 349	Japanese and American Culture: Cross-Cultural Communication	3
MUS 209	Music of World Cultures	3
PSY 357	Cross-Cultural Psychology	3
REL 305	Ethnography of Religion	3
REL 361	Topics in Buddhism	3
REL 362	Topics in Islam	3
REL 381	Zen Buddhism	3
SPA 347	Contemporary Theater in Spain and Spanish America	3
SPA 356	Transgressing Borders: Identity in Latin-American and U.S. Latino Cultures	3
THE 374	Contemporary World Drama	3
<b>Socio-economic Studies</b>		
ANT 337	Economic Anthropology	3

BEM 315	Managing in a Global Context	3
BEM 322	Global Marketing Strategy	3
BEM 391	Global Business Studies	3
ECN 351	International Trade	3
ECN 352	International Finance	3
ECN 358	Economic Growth and Development	3
FIN 234	International Finance	3
HST 350	World Economic History: Globalization, Wealth and Poverty, 1500-Present	3
INS 260	Seminar in Global Trade and Commerce Studies	3
INS 363	Global Capitalism	3
POL 239	State, Economy, and International Competitiveness	3
SOC 363	Global Capitalism	3
<b>Geopolitical Studies</b>		
EDU 271	Geography: The Human Environment	3
EDU 273	Geography: The Natural Environment	3
EDU 274	Environmental Geography	3
HST 309	European International Relations since World War I	3
HST 369	Modern Military History	3
POL 237	The Comparative Politics of Welfare States	3
POL 238	Comparative Economic and Political Development	3
POL 245	Ethnonationalism	3
POL 247	Islam and Politics	3
POL 253	International Political Economy	3
POL 255	Terrorism and Asymmetric Conflict	3
POL 256	International Security	3
POL 261	International Law	3
POL 262	International Organizations	3
POL 263	U.S. Foreign Policy in the Middle East	3
POL 264	Moral Dilemmas in International Politics	3
PHI 366	Global Justice	3
WGS 329	Politics of Gender and Sexuality: Cross-Cultural Perspectives	3

## Regional Studies

Two courses preferably selected from a single region. Regions include Africa, Asia, Europe, Latin America, and the Middle East.

Code	Title	Hours
<b>Africa</b>		
ENG 356	Literature of the Caribbean	3
HST 269	African History since 1850	3
HST 336	Gender and Power in African History	3
HST 340	Urban Africa	3
HST 341	Africans in the Atlantic World, 1750-1815	3
HST 378	Race, Memory, and Identity	3
POL 242	Topics in Comparative Politics	3
POL 252	Topics in International Politics	3
REL 339	Religion, Power, and Society in Modern Africa	3

### Asia

ANT 334	People and Cultures of South Asia	3
ART 204	South Asian Art and Architecture	3
EAL 271	Mass Culture in Modern China	3
EAL 272	Fiction and Film from Hong Kong, Taiwan, and Beyond	3
EAL 375	Senior Research Seminar	3
EAS 311	Special Topics in East Asian Studies	1-3
EAS 381	Independent Research in East Asian Studies	1-3
HST 245	Modern China since 1850	3
HST 247	Japan since 1600	3
HST 249	Intro to East Asia	3
HST 347	The Rise of Asian Economic Power since WWII	3
POL 241	Contemporary India	3
POL 246	Politics and Policies in South Asia	3
POL 248	Chinese Politics	3
REL 361	Topics in Buddhism	3
REL 363	The Religions of Japan	3
REL 381	Zen Buddhism	3
REL 382	Religion and Culture in China	3
REL 385	Topics in South Asian Religions	3
REL 386	Indian Epics	3

### Europe

ART 230	Spanish Art and Architecture	3
ART 235	Arts of London	3
ART 276	Austrian Art and Architecture	3
ECN 372	Selected Areas in Economics	1-3
ENG 362	Irish Literature in the Twentieth Century	3
ENG 368	Studies in Irish Literature	3
FRH 360	Cinema and Society	3
FRH 363	Trends in French and Francophone Poetry	3
FRH 364	French and Francophone Prose Fiction	3
FRH 365	French and Francophone Drama	3
GER 214	Masterpieces of Austrian Literature	3
GER 321	German Culture and Civilization II	3
GER 350	German-Jewish Literature and Culture	3
GER 381	German Literature from 1700-1815	3
GER 383	German Literature from 1815-1900	3
GER 385	German Literature from 1900 to Present	3
GES 331	Weimar Germany	3
GES 335	German Film	3
GES 337	Myth and National Identity Formation	3
GES 341	Austrian Literature in Translation	3
GES 390	German Women Writers	3
GES 397	Intellectual History of Weimar	3
HST 218	France since 1815	3
HST 220	Germany: Unification to Unification 1871 to 1990	3
HST 224	Great Britain since 1750	3
HST 225	History of Venice	3
HST 231	Russia and Soviet Union: 1865 to Present	3



HST 232	Introduction to Russian and East European Studies	3
HST 309	European International Relations since World War I	3
HST 318	Weimar Germany	3
HST 328	History of the English Common Law	3
HST 333	European Diplomacy 1848-1914	3
HST 389	The British Empire in the Middle East	3
HMN 228	Viennese Culture 1860-1914	3
IAS 325	Italian Neorealism in Films and Novels	3
ITA 324	Italian Regional Cultures	3
ITA 326	Comedy in Italian Cinema	3
ITA 327	Modern Italian Cinema	3
ITA 333	Italian Theatre	3
ITA 335	Italian Women Writers	3
ITA 336	Italian Women and the City	3
ITA 338	South in Contemporary Italy	3
POL 202	Political Structures of Present-day Spain	3
POL 231	Western European Politics	3
POL 232	Politics in Russia and Eastern Europe	3
POL 233	The Politics of Modern Germany	3
POL 234	United Kingdom Politics in a Global Age	3
POL 235	European Integration	3
RUS 210	Russians and Their World	3
RUS 341	Russian Literature in Translation	3
SPA 334	Voices of Modern Spain	3
SPA 342	From Colonial to Postcolonial Voices	3
SPA 346	Transatlantic Transitions: Postdictatorship in Spain and the Southern Cone	3
SPA 348	Contemporary Women Novelists and their Female Characters	3
SPA 349	Great Authors and Directors	1.5-3
SPA 351	Cinema and Society	3

#### Latin America

BEM 322	Global Marketing Strategy	3
EDU 373	Comparative and International Education (offered in Spain)	3
HST 275	Modern Latin America	3
HST 284	Latin America's Colonial Past	3
HST 374	Protest and Rebellion in Latin America	3
LAS 210	Introduction to Latin-American and Latino Studies	3
LAS 220C	Afro-Cuban Cultural Expression	3
LAS 310	Special Topics in Latin American and Latino Studies	3
LAS 398	Individual Study	3
MUS 210	Survey of Latin American Music	3
POL 236	Government and Politics in Latin America	3
POL 257	Politics of International Development	3
SPA 342	From Colonial to Postcolonial Voices	3
SPA 347	Contemporary Theater in Spain and Spanish America	3
SPA 355	Romantic Nationalism, Avant-garde Nihilism, and the Deconstruction of Utopia	3

SPA 356	Transgressing Borders: Identity in Latin-American and U.S. Latino Cultures	3
SPA 360	Contemporary Theatre	3

#### Middle East

HST 388	Nation, Faith, and Gender in the Middle East	3
HST 389	The British Empire in the Middle East	3
POL 247	Islam and Politics	3
POL 259	Palestine and the Arab-Israeli Conflict	3
POL 263	U.S. Foreign Policy in the Middle East	3
POL 274	Arab and Islamic Political Thought	3

## Jewish Studies

### Interdisciplinary Minor

**The Jewish Studies minor** emphasizes Jewish history, religion, thought, texts, literature, the arts, traditions, and the ways that they have formed in the context of various civilizations from antiquity to the present.

Judaism and Jewish civilization developed - and continue to do so - as a result of interaction with other religions and cultures. The minor, therefore, is trans-regional/national and thereby links disparate fields of study that are usually examined separately. Jews and Judaism are studied within the broader context of world civilizations and the spectrum of the arts, humanities, and social sciences. In this regard, the minor complements already existing areas of interest in a number of majors and disciplines, (such as American Ethnic Studies, History, International Studies, Medieval Studies, Politics and International Affairs, and Religious Studies).

The interdisciplinary approach of the minor exposes students to a wide range of disciplines and, like other established interdisciplinary minors, gives students the opportunity for synthesizing and critically reflecting on their course of study. The Jewish Studies minor provides interested students a grounding for graduate study in the humanities, religion, and social sciences.

Additional elective courses may have been approved since publication of this bulletin. The program director maintains a complete list of all approved elective courses. For course descriptions, see the relevant department's listing in this bulletin.

## Contact Information

Jewish Studies (<https://jewishlife.wfu.edu/resources/academics-jewish-studies-program/>)

## Programs Minor

- Jewish Studies, Minor

## Faculty

**Director, The Michael H. and Deborah Rubin Presidential Chair of Jewish History and Associate Professor Barry Trachtenberg**

## Jewish Studies, Minor

A minimum of fifteen credit hours is required to graduate with a minor in Jewish Studies. Courses for the minor are approved by the Advisory

Committee of the Jewish Studies Program. The courses must be from at least two departments, at least three must be upper level courses (200 level or above). No more than six credit hours of Hebrew or another Jewish language can be counted toward the minimum number of courses required.

Code	Title	Hours
COM 339	Practices of Citizenship *	3
ENG 364	Advanced Studies in Literary Criticism *	3
ENG 371	American Ethnic Literature *	3
ENG 377	American Jewish Literature *	3
GER 212	Introduction to German Short Fiction	3
GES 337	Myth and National Identity Formation	3
GER 350	German-Jewish Literature and Culture	3
GES 351	German-Jewish Literature and Culture	3
HST 235	The History of European Jewry from the Middle Ages to the Present	3
HST 236	The Nazi Holocaust to 1941 (Rise of Nazism, Jewish Responses, Global Reaction)	3
HST 237	The Nazi Holocaust from 1941 (War, Genocide, and Aftermath)	3
HST 239	Jewish History in the Americas	3
HST 305	Medieval & Early Modern Iberia	3
HST 310	20th Century Eastern Europe *	3
HST 312	Jews, Greeks and Romans	3
HST 320	Write and Record! Diaries and Memoirs of the Nazi Holocaust	3
HST 321	Zionism, Palestine, and Israel in Historical Perspective	3
NLL 111 & NLL 112	Elementary Hebrew and Elementary Hebrew	6
NLL 153	Intermediate Hebrew	3
NLL 211 & NLL 212	Hebrew Literature and Hebrew Literature II	6
NLL 311	Aramaic	3
NLL 314	Readings from the Rabbis	3
POL 242	Topics in Comparative Politics (The Politics of Exile or The Politics of Exile and Diaspora) *	3
POL 259	Palestine and the Arab-Israeli Conflict	3
REL 113	Introduction to Jewish Traditions	3
REL 308	Sacred Scripture in the Traditions of Abraham	3
REL 310	The Prophetic Literature	3
REL 312	The Critical Study of the Pentateuch	3
REL 315 & REL 316	Field Research in Biblical Archeology and Field Research in Biblical Archeology	6
REL 317	Wisdom Literature *	3
REL 328	Jewish-Christian Relations and the New Testament	3
REL 355	Jewish Identities: Religion, Race, and Rights	3
REL 356	Faces of Modern Judaism	3
REL 357	Jews in the United States	3

SPA 331	Medieval Spain: A Cultural and Literary Perspective *	3
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\* Indicates the course must be approved by the instructor and the Jewish Studies director.

## Journalism (JOU)

The Journalism Program offers an interdisciplinary minor in the practice of journalism and its role in a free society. Students report and tell stories in a range of media as they learn to verify facts, establish their independence, and serve their readers or audience. A minor in journalism pairs well with any major in the College or School of Business.

## Contact Information

Journalism Program

## Programs

### Minor

- Journalism, Minor

## Courses

### Journalism (JOU)

#### JOU 270. Introduction to Journalism. (3 h)

Fundamentals of news reporting, news writing, and news judgment. Digital skills introduced and practiced. Intensive in-class writing.

#### JOU 278. News Literacy. (3 h)

Exploring the difference between news and propaganda, news and opinion, bias and fairness, citizen reporting and professional journalism with a goal of training more discriminating and thoughtful producers and consumers of news. Included: historical context of the news industry.

#### JOU 310. Editing. (3 h)

Fundamentals in copy editing and headline writing as it applies to print and online journalism. Applying grammar, adherence to Associated Press style, and use of photos, lay-out and news judgment to improve news and feature stories. Intensive in-class editing. P - JOU 270 or POI.

#### JOU 315. Beat Reporting. (3 h)

Fundamentals in identifying and developing news and feature beats. Emphasis on interviewing skills, source development, story identification and writing for print and online. Digital skills such as blogging, photography, video production, and social media practiced. Highly interactive. P - JOU 270.

#### JOU 320. Community Journalism. (3 h)

Produce stories in a range of media for an online publication with a growing readership about the people, places, and trends that create community in downtown Winston-Salem. Students will break news, explore the arts scene, tell stories about interesting people in town and practice journalism on the ground. P - JOU 270 or POI.

#### JOU 325. Writing for a Social Purpose. (3 h)

Combines writing, service learning, and entrepreneurship approaches in communication by partnering students with a local nonprofit organization to provide a range of writing solutions in print and online. Also listed as ENT 203. P - JOU 270 or POI.

**JOU 330. Podcasting. (3 h)**

Introduction to audio storytelling. As the world of podcasting and nonfiction audio grows rapidly, students will learn the building blocks and best practices of audio journalism, including sound editing, and interviewing, and story, and will discuss what journalism means in these changing times.

**JOU 335. Multimedia Storytelling. (3 h)**

Provides concepts and applied skills related to digital news production, digital research, use of search engine optimization and analytics, social media as a reporting and branding tool, navigating content management systems, visual storytelling and web publishing.

**JOU 340. Magazine Writing. (3 h)**

Analysis of magazine writing and long form journalism with practice pitching, reporting and writing articles in a range of styles and of varied lengths with specific audiences in mind. Also listed as WRI 344.

**JOU 345. Sports Journalism. (3 h)**

Introduction to the world of sports, the lives of athletes and the influence both have on American culture and college campuses. Students will keep a blog, conduct regular interviews, cover on- and off-campus sporting events, write opinion columns, produce multimedia stories and profile Wake Forest athletes. P - JOU 270 or POI.

**JOU 350. Writing for Public Relations and Advertising. (1.5, 3 h)**

Principles and techniques of public relations and applied advertising and marketing. Students use case studies to develop public relations and advertising strategies. Also listed as COM 117.

**JOU 355. Broadcast Journalism. (3 h)**

An introduction to the theory and practice of broadcast journalism. Topics will include ethics, technology, and the media as industry. Projects will address writing, producing, and performing for radio and television. Also listed as COM 215.

**JOU 370. International Reporting. (3 h)**

Students explore a part of the world as journalists do, interviewing, observing, and exploring to produce stories that shed light on the people, culture, and issues that define that place. P - JOU 270 or POI.

**JOU 375. Special Topics in Journalism. (1-3 h)**

Study and practice of new trends, innovations and subject matters in journalism. May be repeated once for credit, provided the topic has changed. P - JOU 270 or POI.

**JOU 390. Internship. (1-3 h)**

Practical experience in journalism. Students work with a faculty adviser. Cannot be repeated except with approval of the director.

**JOU 395. Individual Study. (1-3 h)**

Independent study with faculty guidance. By prearrangement.

## Faculty

**Director, Associate Professor of the Practice** Phoebe Zerwick  
**Professor of the Practice** Justin Catanoso

**Assistant Professor of the Practice** Ivan Weiss

**Adjunct Lecturer** Paul Garber, Jordan Green, Mandy Locke, Robert Samuels, Barry Yeoman

**Part-time Lecturer** Maria Henson

## Journalism, Minor Requirements

The minor consists of 18 credits, beginning with the gateway course JOU 270, Introduction to Journalism. JOU 278, News Literacy, is a second

required course and can be taken at any time. Students take 12 hours of elective credit, which can be drawn from upper level JOU courses or a list of courses in other departments across the College. Students may only count one elective toward another major or minor. Students may also take Journalism courses for general elective credit.

Code	Title	Hours
<b>Required Minor Courses</b>		
JOU 270	Introduction to Journalism *	3
JOU 278	News Literacy **	3
Select four additional Journalism Course Electives		12

(Students may pick one course from the following list to fulfill an elective in the minor.)

\* JOU 270 is a pre-requisite for advanced writing courses.

\*\* JOU 278 can be taken at any time.

## Journalism Electives

Code	Title	Hours
JOU 310	Editing	3
JOU 315	Beat Reporting	3
JOU 320	Community Journalism	3
JOU 325	Writing for a Social Purpose	3
JOU 330	Podcasting	3
JOU 335	Multimedia Storytelling	3
JOU 340	Magazine Writing	3
JOU 345	Sports Journalism	3
JOU 350	Writing for Public Relations and Advertising	1.5,3
JOU 355	Broadcast Journalism	3
JOU 370	International Reporting	3
JOU 375	Special Topics in Journalism	1-3
JOU 390	Internship	1-3
JOU 395	Individual Study	1-3

## Electives Outside of Journalism

The practice of journalism, with its central role in American democracy and culture, requires students to tell compelling stories in a range of media. Increasingly, journalism is also a data-driven field, with some of the most important stories of our time based on the analysis of data. Students may pick one course from the following list to fulfill elective credit in Journalism. With approval of the director, students interested in tailoring the minor to a particular interest have the option of selecting a second interdisciplinary elective from the list below or choosing one upper-level course not listed below.

Please refer to departmental listings for more detail on each course.

Code	Title	Hours
<b>Storytelling Courses</b>		
ART 114	Introduction to Film and Video Art	3
ART 119	Introduction to Darkroom Photography	3
ART 120	Introduction to Digital Photography	3
ART 122	Design Studio: Visualization of Ideas	3
ART 214	Film and Video Art: Site Specific	4
ART 224	Film and Video Art: Cyberspace	4
ART 229	Digital Photography	4

COM 247	Media Production I	3
COM 309	Visual Storytelling	3
COM 310	Media Production II	3
COM 316	Screenwriting	3
COM 325	On Camera Performance	3
COM 365	Imagination Project	3
CRW 287	Literary Nonfiction Workshop	3
CRW 387	Advanced Literary Nonfiction Workshop	3
ENV 306	Topics in Environmental Studies	1-4
HST 367	Public History	3
WGS/ENT 326	Telling Women's Lives: Writing about Entrepreneurs, Activists, and Thought Leaders	3
WRI 210	Advanced Academic Writing	3
WRI 212	Literary Nonfiction: Art of the Essay	3
WRI 320	Writing in and about Science: Scientists as Writers and Writers as Scientists	3
<b>Computer, Technology and Information Literacy Courses</b>		
CSC 101	Overview of Computer Science	3
CSC 111	Introduction to Computer Science	4
CSC 321	Database Management Systems	3
CSC 322	Data Management and Analytics	3
CSC 361	Digital Media	3
CSC 363	Computer Graphics	3
<b>Media, Democracy and Culture Courses</b>		
COM 245	Introduction to Mass Communication	3
COM 319	Media Ethics	3
HST 362	American Constitutional History	3
POL 217	Politics and the Mass Media	3
WGS 271	Making Sense of the News Through a Feminist Lens	1-3

## Languages Across the Curriculum (LAC)

Languages Across the Curriculum (LAC) is a strategy to integrate foreign language use throughout the curriculum. It facilitates the collaboration of faculty by bridging disciplinary boundaries, and it promotes the internationalization of course offerings. LAC encourages multicultural understanding and an appreciation of the place of different disciplines in a global context. It recognizes the importance of multilingualism in today's society. Faculty and students learn how a discipline they have first studied in their native English is approached by different cultures and different linguistic codes.

Faculty members determine the most appropriate LAC model and level for their courses. For more information about the various models for LAC implementation, visit here (<http://college.wfu.edu/spanishitalian/interdisciplinary-programs/>).

## Latin-American and Latino Studies (LAS)

Interdisciplinary Minor

The Latin American and Latino Studies Program was established to encourage the study of Latin American and Latino history, culture, geography, economics and politics. Working with students and a distinguished interdisciplinary faculty, the Program is committed to enhancing and advancing the understanding of and appreciation for Latin America and its people.

## Five-Year BA/MA Degree Program Option

Students who choose to minor in Latin-American and Latino Studies have the opportunity to pursue a joint BA/MA program in conjunction with the Center for Latin-American Studies at Georgetown University in Washington, D.C. This program allows outstanding students interested in Latin America to begin work toward an interdisciplinary master's degree in Latin-American studies while still undergraduates at Wake Forest, and to complete both degrees within a five-year period. The Bachelor of Arts degree is awarded by Wake Forest, while the master's degree is awarded by Georgetown. Interested students should contact the director of Latin-American studies or the five-year degree program coordinator.

## Semester in Argentina/Chile

The Latin-American and Latino Studies minor offers a spring semester program based in Santiago, Chile with a three week study component in Buenos Aires, Argentina. Students go as a group, accompanied by a professor from the College. No particular major or minor is required for eligibility. Interested students should contact Peter Siavelis in the Politics and International Affairs Department, or visit the Center for Global Programs and Studies website (<http://global.wfu.edu>).

## Latina/o Mentoring Initiative

WFU's Latin American and Latino Studies (LALS), in partnership with El Buen Pastor Latino Community Services (EBPLCS), offers a mentoring program for Latino middle school and high school youth of Winston-Salem, North Carolina. The program consists of pairing WFU students with Latino students affiliated with EBPLCS for a mentoring relationship that lasts at least two years. WFU mentors who are LALS minors have the opportunity to earn three LALS credit hours for partaking in an independent study course. This course entails working on a research project assessing the mentoring program under the guidance of an LALS faculty member. Some of the benefits for LALS minors partaking in this initiative include: developing a more comprehensive understanding of the strength and struggles of Latino students in the U.S., developing critical thinking, analytical, quantitative literacy and writing skills, developing strong leadership and interpersonal communication skills, receiving LALS course credit for partaking in an independent study, and developing a rewarding relationship with a local Latino student that can last a lifetime. For more information, contact the co-directors of the mentoring program, Betina Wilkinson or Peter Siavelis.

## Contact Information

Latin American and Latino Studies (<http://college.wfu.edu/lals/>)  
Kirby Hall 308, Box 7568  
Phone 336-758-5451

## Programs Minor

- Latin-American and Latino Studies, Minor

## Courses

### Latin-American and Latino Studies (LAS)

#### LAS 210. Introduction to Latin-American and Latino Studies. (3 h)

Introduces the historical, economic, cultural, and social issues which shape Latin America. (CD)

#### LAS 220C. Afro-Cuban Cultural Expression. (3 h)

A comprehensive study of Cuban culture with a concentration on the artistic manifestations of Afro-Cuban religions. Students study literature, art, film, music, and popular culture to analyze how Afro-Cuban culture constitutes national culture. Also listed as SPA 368. Offered in Havana. (CD)

#### LAS 281. Contemporary Chile in Latin American Perspective. (3 h)

Introduces the nature and content of contemporary Chilean politics by placing them in a wider analysis of Latin American politics, history, and society, and international relations. Normally offered in Chile unless otherwise noted.

#### LAS 310. Special Topics in Latin American and Latino Studies. (3 h)

Selected topics in Latin American and Latino studies; topics vary from year to year. (CD)

#### LAS 380. Latin American and Latino Studies Honors Colloquium. (4 h)

Honors capstone colloquium consisting of varied readings and an individual research project. Normally offered in Chile unless otherwise noted.

#### LAS 388. Internship in Latin American and Latino Studies. (1-3 h)

Internship course designed to meet the needs and interests of selected students, to be carried out under the supervision of a faculty member in the Latin American and Latino Studies minor. P - POL.

#### LAS 398. Individual Study. (1-3 h)

A reading or research course designed to meet the needs and interests of selected students, to be carried out under the supervision of a faculty member in the Latin American Studies minor. P-POL.

## Faculty

Director Ana-María González Wahl

### Latin-American and Latino Studies, Minor

### Requirements

Provides an opportunity for students to undertake a multidisciplinary study of the history, culture, economics, and politics of Latin America, the Caribbean, and of the Latino population in the U.S. It consists of a total of 15 hours; three of these (but no more) may also count toward the student's major. Courses applied toward other minors may also be applied toward the Latin-American and Latino Studies minor. Candidates for the minor are required to take:

Code	Title	Hours
<b>Required Minor Courses</b>		
LAS 210	Introduction to Latin-American and Latino Studies	3
Select 12 hours of coursework related to Latin America or to Latinos in the U.S **		12

\* LAS 310 if taken in Chile as part of the honors in Latin-American and Latino Studies program can also fulfill the LAS 210 requirement.

\*\* No more than six of these 12 hours may be in a single discipline.

Candidates should demonstrate proficiency in Spanish or Portuguese either by completing at least one Spanish or Portuguese course at the 200 level or by undergoing an oral proficiency interview with a member of the faculty of the Department of Romance Languages.

Students may choose from the following list of electives when designing their minor. See the relevant department listings for course descriptions. Additional elective courses may have been approved since publication of this bulletin. The program director maintains a complete list of all approved elective courses (<http://college.wfu.edu/lals/>).

### Electives for Latin-American and Latino Studies

Code	Title	Hours
ANT 327	Global Justice and Human Rights in Latin America	3
ANT 342	Applied Anthropology	3
ANT 360	Anthropology of Global Health	3
ANT 383 & ANT 384	Field program in Cultural Anthropology and Field Program in Cultural Anthropology	6
ANT 385 & ANT 386	Special Problems Seminar and Special Problems Seminar (if related to Latin America)	6
BIO 349	Tropical Biodiversity of the Amazon and Andes	4
ECN 351	International Trade	3
ECN 352	International Finance	3
ECN 358	Economic Growth and Development	3
ENG 357	Studies in Chicano/a Literature	3
HST 104	World Civilizations since 1500 (if related to Latin America)	3
HST 108	Americas and the World	3
HST 275	Modern Latin America	3
HST 284	Latin America's Colonial Past	3
HST 311	Special Topics in History (if related to Latin America)	3
HST 359	Prostitutes, Machos, and Travestis: Sex and Gender in Latin American History	3
HST 374	Protest and Rebellion in Latin America	3
HST 390	Research Seminar (if related to Latin America)	4
HMN 186	Contemporary Chilean Experience	1.5
HMN 223	African and Caribbean Literature	3
MUS 210	Survey of Latin American Music	3
POL 210	Topics In United States Politics and Policy	3
POL 214	Latino/a Political Behavior	3
POL 224	Racial and Ethnic Politics	3
POL 236	Government and Politics in Latin America	3
POL 240	Politics of Human Rights	3
POL 242	Topics in Comparative Politics (if related to Latin America)	3
POL 257	Politics of International Development	3



POL 300	Senior Seminar in Political Science (if related to Latin America) *	4	SPA 347	Contemporary Theater in Spain and Spanish America	3
PTG 111 & PTG 112	Elementary Portuguese and Elementary Portuguese **	6	SPA 348	Contemporary Women Novelists and their Female Characters (if related to Latin America or Latino Studies)	3
PTG 113	Intensive Elementary Portuguese	4	SPA 349	Great Authors and Directors (if related to Latin America or Latino Studies)	1.5-3
PTG 154	Accelerated Intermediate Portuguese	3	SPA 350	Film Adaptations of Literary Works (if related to Latin America or Latino Studies)	3
PTG 212	Exploring the Lusophone World	3	SPA 351	Cinema and Society (if related to Latin America or Latino Studies)	3
REL 103B	Introduction to Latin American Christian Traditions	3	SPA 355	Romantic Nationalism, Avant-garde Nihilism, and the Deconstruction of Utopia	3
REL 390	Special Topics in Religion (if related to Latin America)	1.5-3	SPA 356	Transgressing Borders: Identity in Latin-American and U.S. Latino Cultures	3
SOC 356	Sociology of Immigration	3	SPA 357	Spanish American Short Story	3
SOC 359	Race and Racism	3	SPA 358	Spanish-American Novel	3
SOC 386	Special Topics Seminar in Culture and Social Movements (if related to Latin America or Latino Studies)	3	SPA 359	Spanish-American Theater: From Page to Stage	3
SPA 309	Grammar and Composition	4	SPA 360	Contemporary Theatre	3
SPA 309L	Grammar and Composition for Heritage Speakers of Spanish	4	SPA 361	Fictions of Mexican Revolution	3
SPA 310	Anecdotes, Bestsellers, Cuentos. The ABCs of Storytelling in the Spanish-Speaking World	3	SPA 363	Cultural and Social Entrepreneurship: Promotion of Latin American and Latino Societies	3
SPA 311	Bard, Ballad, Bolero. Poetry, and Song in the Spanish-Speaking World	3	SPA 366	Advanced Topics in Literary and Cultural Studies (if related to Latin America or Latino Studies)	3
SPA 312	Page, Stage, and Performance. Theater and Drama of the Spanish-Speaking World	3	SPA 367	Cuban Literature (offered in Havana)	3
SPA 313	Lights, Camera, ¡Acción!. Cinema and Culture in the Spanish-Speaking World	3	SPA 368	Afro Cuban Cultural Expression (offered in Havana)	3
SPA 316	Paradise in Perspective: An Interdisciplinary Approach to the Wider Caribbean	3	SPA 369	Special Topics in Literary and Cultural Studies (if related to Latin America or Latino Studies)	1.5-3
SPA 317	Distant Neighbors: Interdisciplinary Approaches to Mexico and Central America	3	SPA 379	Special Topics in Hispanic Linguistics (if related to Latin America or Latino Studies)	3
SPA 318	The Andes to Patagonia: Interdisciplinary Approaches to South American Culture	3	SPA 387	Cultural Industries and Institutions in Spain and Spanish America	3
SPA 319	Literary and Cultural Studies of Spanish America	3	SPA 388	Global Negotiation and Conflict-Management Skills in a Spanish-Speaking Setting	3
SPA 322	Spanish pronunciation and Dialect Variation	3	SPA 390	International Business: Spain and Latin America	3
SPA 325	Spanish for Business I	3	SPA 397	Spanish Independent Study (if related to Latin America or Latino Studies)	1.5
SPA 326	International Business: Spain/Latin America	3	SPA 398	Honors Directed Reading and Research (if related to Latin America or Latino Studies)	1.5
SPA 327	Spanish for Business II	3	SPA 399	Honors Directed Writing (if related to Latin America or Latino Studies)	3
SPA 329	Intermediate Topics in Literary and Cultural Studies (if related to Latin America or Latino Studies)	3	WGS 322	Feminist, Womanist, Murjerista Theologies: Constructive Perspectives on Christian Thought	3
SPA 341	Latin American Historical Fiction: Memory, Myth, and Social Justice	3	WGS 377	Special Topics (if related to Latin America)	1.5-3
SPA 342	From Colonial to Postcolonial Voices	3			
SPA 343	Travel Literature	1.5-3			
SPA 344	The 18th- and 19th-century Periodical Press in Spain and Spanish America	1.5-3			
SPA 345	The Transatlantic Civil War	3			
SPA 346	Transatlantic Transitions: Postdictatorship in Spain and the Southern Cone	3			

\* Suggested for LAS minors who major in political science.

\*\* Students must complete both PTG 111 and PTG 112 to receive 3 hours towards the minor.

## Honors

The honors designation in Latin-American and Latino Studies is a recognition of outstanding scholarship in the area, as evidenced by academic achievement, critical thinking, intellectual initiative and deep familiarity with the culture and peoples of Latin America. To receive honors in Latin-American and Latino Studies highly qualified students must apply and be selected to complete the Chile Honors Semester which will normally be offered in the fall in Santiago, Chile. Students will undertake focused individual research in the country by participating in LAS 380 and pursue other related coursework. Students are required to present the research findings from their honors colloquium independent project upon return to campus. To receive honors in Latin-American and Latino Studies students must also at the time of graduation have a 3.4 GPA or higher in courses pursued for the minor and an overall GPA of 3.2 or higher. Interested students should contact Professor Peter Siavelis in the Politics and International Affairs department, or visit the Center for International Studies website at <http://cis.wfu.edu/>.

## Linguistics (LIN)

### Interdisciplinary Minor

The interdisciplinary Linguistics minor offers academic courses across a variety of disciplines. The minor was established in 1993 by faculty from the departments of Anthropology, Classics, Communication, Education, English, French Studies, German-Russian, Humanities, and Spanish and Italian. The minor is currently directed by Professor Jerid Francom who is assisted by a core group of faculty members drawn from various departments across campus.

By nature and approach, linguistics is integrated tightly with the core mission of the University. Linguistics encourages students to analyze data and to “ask why,” to evaluate evidence of various kinds that bears on issues of language acquisition and use, and to see multiple perspectives on problems and evaluate them critically. It is inherently interdisciplinary and stimulates an interconnected perspective, drawing on social sciences, liberal arts, and even physical sciences, as in phonetics (acoustics) and psycholinguistics (neuroscience, imaging techniques); and it is oriented towards the many cultural heritages of the world. It investigates language in all its forms (oral, written, signed) as a distinctive and universal trait of what makes us human — arguably, the field that is most “Pro-Humanitate” of all. And it emphasizes both the diversity of an estimated 6,000 languages and their common core in human cognition and sociocultural functions.

## Contact Information

Linguistics (<http://college.wfu.edu/linguistics/>)

## Programs Minor

- Linguistics, Minor

## Courses

### Linguistics (LIN)

#### LIN 150. Introduction to Linguistics. (3 h)

The social phenomenon of language: how it originated and developed, how it is learned and used, its relationship to other kinds of behavior; types of language (oral, written, signed) and language families; analysis of linguistic data; social issues of language use. Also listed as ANT 150. (CD)

#### LIN 309. Modern English Grammar. (3 h)

A linguistics approach to grammar study. Includes a critical exploration of issues such as grammatical change and variation, the origins and effects of grammar prescriptions/proscriptions, the place of grammar instruction in education, and the politics of language authority. Also listed as ENG 309.

#### LIN 310. Sociolinguistics and Dialectology. (3 h)

Study of variation in language: effects of regional background, social class, ethnic group, gender, and setting; social attitudes toward language; outcomes of linguistic conflicts in the community; evolution of research methods for investigating language differences and the diffusion of change. P- LIN 150/ANT 150 or POI.

#### LIN 330. Introduction to Psycholinguistics and Language Acquisition. (3 h)

A psychological and linguistic study of the mental processes underlying the acquisition and use of language; how children acquire the structure of language and how adults make use of linguistic systems.

#### LIN 333. Language and Gender. (3 h)

Uses an anthropological perspective to examine relationships between language structure, language use, persons, and social categories. Also listed ANT 333.

#### LIN 337. TESOL Linguistics. (3 h)

Introduces the theoretical and practical linguistics resources and skills for teaching English to speakers of other languages (TESOL) within the United States or abroad. Also listed as EDU 337. P-LIN 150/ANT 150 or ENG 304 or POI; knowledge of a second language is recommended.

#### LIN 340. Special Topics in Linguistics. (3 h)

Interdisciplinary study of selected topics, such as morphology, phonology/phonetics, syntax, historical linguistics, history of linguistic theory, semiotics, and ethnolinguistics, issues in Asian linguistics, language and gender. May be repeated for credit if topic varies. P- LIN 150/ANT 150 or POI.

#### LIN 350. Language, Indigeneity and Globalization. (3 h)

Taking a global case-study approach, this seminar explores the role language plays in contemporary identity formation and expression, from indigenous to transnational contexts. Addresses relationships among language and: colonialism, postcolonialism, nationalism, cultural revitalization, standardization, social and economic inequality, boundary-formation, and processes of cultural inclusion and exclusion. Also listed as ANT 350. (CD)

#### LIN 351. Comparative Communication. (1.5, 3 h)

A comparison of communicative and linguistic processes in one or more national cultures with those of the United States. Also listed as COM 351. (CD)

**LIN 351A. Comparative Communication Japan. (1.5, 3 h)****LIN 351B. Comparative Communication Russia. (1.5, 3 h)****LIN 351C. Comparative Communication Great Britain. (1.5, 3 h)****LIN 351D. Comparative Communication Multiple Countries. (1.5, 3 h)****LIN 351E. Comparative Communication China. (1.5, 3 h)****LIN 352. Linguistics Cross-Cultural Communication. (3 h)**

Introduction to the nature of language, communication practices, nonverbal communication, and their cross-cultural variability.

Teaches awareness of and respect for a range of culturally-specific communicative practices and provides analytic skills (linguistics, semiotic, and ethnographic) with which to recognize and assess such practices. This course differs from COM 350 (Intercultural Communication) in its greater emphasis on approaches from linguistics and anthropology. (CD)

**LIN 354. Field Methods in Linguistic Anthropology. (4 h)**

Trains students in basic skills of collecting and analyzing linguistic data at the levels of phonetics-phonology, grammar, lexico-semantics, discourse, and sociocultural context. Students will learn about the research questions that drive linguistic fieldwork as well as the relevant methods, tools and practical and ethical concerns. Also listed as ANT 354. P-ANT 150/LIN 150 or POI.

**LIN 355. Language and Culture. (3 h)**

Covers theoretical and methodological approaches to the study of language and culture, including: semiotics, structuralism, ethnoscience, the ethnography of communication, and sociolinguistics. Topics include: linguistic relativity; grammar and worldview; lexicon and thought; language use and social inequality; language and gender; and other areas. Also listed as ANT 355.

**LIN 375. Philosophy of Language. (3 h)**

A study of such philosophical issues about language as truth and meaning, reference and description, proper names, indexicals, modality, tense, the semantic paradoxes, and the differences between languages and other sorts of sign systems. Also listed as PHI 375. P-POI.

**LIN 380. Language Use and Technology. (3 h)**

Introduction to the fundamental concepts of creating and accessing large linguistic corpora (electronic collections of "real world" text) for linguistic inquiry. Course surveys a variety of cross-discipline efforts that employ corpus data for research and explores current applications. P-POI.

**LIN 383. Language Engineering: Localization and Terminology. (3 h)**

Introduction to the process of making a product linguistically and culturally appropriate to the target locale, and to computer-assisted terminology management. Surveys applications in translation technology. P-POI.

**LIN 390. The Structure of English. (3 h)**

An introduction to the principles and techniques of modern linguistics applied to contemporary American English. Also listed as ENG 390.

**LIN 398. Individual Study. (1-3 h)**

Designed to meet the needs of selected students, to be carried out under the supervision of a faculty member in the linguistics minor program. P-ANT 150/LIN 150 and POI.

**LIN 399. Individual Study. (1-3 h)**

Designed to meet the needs of selected students, to be carried out under the supervision of a faculty member in the linguistics minor program. P-ANT 150/LIN 150 and POI.

## Faculty

**Director, Associate Professor of Spanish** Irma Alarcón

**Core Faculty:**

**Associate Professor of Anthropology** Margaret Bender

**Associate Professor of French** Stéphanie Pellet

**Associate Professors of Spanish** Diego Burgos, Jerid Francom, Luis González, Tiffany Judy

**Professor of Russian Linguistics** William S. Hamilton

## Linguistics, Minor

### Requirements

The interdisciplinary minor in linguistics requires:

Code	Title	Hours
LIN/ANT 150	Introduction to Linguistics	3
Select 12 additional hours of the following three groups: *		12
Linguistic Courses		
Historical Linguistics		
Related Topics		

\* *It is recommended that at least one course be from historical linguistics.*

Students minoring in linguistics are strongly encouraged to study foreign languages, achieving proficiency in at least one, and social and behavioral sciences. The minor may be usefully combined with a major in a foreign language, English, anthropology (or other social science), philosophy, or communication.

Students intending to minor in linguistics should consult the director, preferably during their sophomore year. Students may choose from the approved list of electives when designing their minor. For course descriptions, see the relevant department's listings in this publication. Additional elective courses may have been approved since publication of this bulletin. The director maintains a complete list of all elective courses that fulfill the minor.

### Linguistic Courses

Code	Title	Hours
LIN/ANT 150	Introduction to Linguistics	3
LIN/ENG 309	Modern English Grammar	3
LIN 310	Sociolinguistics and Dialectology	3
LIN 330	Introduction to Psycholinguistics and Language Acquisition	3
LIN/ANT 333	Language and Gender	3
LIN/EDU 337	TESOL Linguistics	3
LIN 340	Special Topics in Linguistics	3
LIN/ANT 350	Language, Indigeneity and Globalization	3
LIN 352	Linguistics Cross-Cultural Communication	3
LIN/ANT 354	Field Methods in Linguistic Anthropology	4
LIN/ANT 355	Language and Culture	3
LIN/PHI 375	Philosophy of Language	3
LIN 380	Language Use and Technology	3
LIN 383	Language Engineering: Localization and Terminology	3

LIN/ENG 390	The Structure of English	3
LIN 398/399	Individual Study	1-3

## Historical Linguistics

Code	Title	Hours
ENG 304	History of the English Language	3
FRH 341	Rise of French	3
GES 345	History of the German Language	3
RUS 332	The History of Russian Language	3
SPA 370	History of the Spanish Language	3

## Related Topics

Code	Title	Hours
ANT/EDU 353	Language in Education	3
FRH 322	French Phonetics	3
FRH 342	Structure of French	3
FRH 343	Modern French	3
FRH 345	Language and Society	3
RUS 330	Structure of Russian	3
SPA 320	Introduction to Hispanic Linguistics	3
SPA 322	Spanish pronunciation and Dialect Variation	3
SPA 371	Contrastive Spanish/English Grammar and Stylistics	3
SPA 372	Acquisition of Spanish	3
SPA 373	Language and Society	3
SPA 379	Special Topics in Hispanic Linguistics	3

## Mathematics and Statistics (MST)

A major in mathematics or in mathematical statistics can be achieved by satisfying the requirements listed for either the bachelor of arts or bachelor of science. Lower division students are urged to consult a member of the departmental faculty before enrolling in courses other than those satisfying Division V requirements.

A minimum grade point average of 2.0 in courses which comprise a major or minor in the department is required for graduation with any major or minor which the department offers. Students may major in the department and minor in statistics, but the only electives that may be counted towards both programs is exactly one of MST 121 or MST 205. Students may not major in the department and minor in mathematics or double-major within the department.

The department regularly schedules activities in mathematics and statistics for students that enhance the course offerings. Examples are:

- participation in the annual Putnam examination
- the COMAP contest in mathematical modeling
- the American Statistical Association DataFest
- Local chapter of the AWM (American Women in Mathematics)
- data science and hackathon events
- meetings of the mathematics and statistics club
- seminars and courses which build upon the regularly scheduled course offerings
- student research with faculty

- The Math and Stats Center provides an opportunity for students to receive tutoring in all MST and STA courses throughout the year. Opportunities to serve as a tutor are also available.

Students who are enrolled at Wake Forest may not take courses in mathematics and statistics at other institutions to satisfy divisional requirements.

## Contact Information

Department of Mathematics & Statistics (<http://college.wfu.edu/math/>)  
Manchester Hall 127, Box 7388  
Phone 336-758-5300

## Programs Majors

- Applied Mathematics, B.S.
- Mathematical Business, B.S.
- Mathematical Economics, B.S.
- Mathematical Statistics, B.A.
- Mathematical Statistics, B.S.
- Mathematics, B.A.
- Mathematics, B.S.

## Minors

- Mathematics, Minor
- Statistics, Minor

## Courses

### Mathematics (MST)

#### MST 105. Fundamentals of Algebra and Trigonometry. (1-3 h)

A review of the essentials of algebra and trigonometry. Admission by permission only (generally, a student must have taken fewer than three years of high school mathematics to be eligible for admission). Not to be counted towards any major or minor offered by the department.

#### MST 105L. Fundamentals of Algebra and Trigonometry Lab. (1-2 h)

A review of the essentials of algebra and trigonometry in a guided laboratory setting. Admission by permission only. Not to be counted towards any major or minor offered by the department. Pass/Fail only.

#### MST 107. Explorations in Mathematics. (4 h)

An introduction to mathematical reasoning and problem solving. Topics vary by instructor and may include one or more of the following: knot theory, Euclidean and non-Euclidean geometry, set theory, cryptography, discrete models, number theory, discrete mathematics, chaos theory, probability, and MAPLE programming. Lab. (D, QR)

#### MST 111. Calculus with Analytic Geometry I. (4 h)

Functions of a real variable, trigonometric, exponential and logarithmic functions, limits, continuity, differentiation, applications of derivatives, indeterminate forms, introduction to integration, the fundamental theorem of calculus. Lab. (D, QR)

#### MST 112. Calculus with Analytic Geometry II. (4 h)

Techniques of integration, applications of integration, improper integrals, sequences, Taylor's formula, and infinite series, including power series. Lab. P-MST 111 or POI. (D, QR)

**MST 113. Multivariable Calculus. (4 h)**

The calculus of vector functions, including geometry of Euclidean space, differentiation, extrema, line integrals, multiple integrals, and Green's, Stokes', and divergence theorems. Lab. (D, QR)

**MST 117. Discrete Mathematics. (4 h)**

Introduction to various topics in discrete mathematics applicable to computer science including sets, relations, Boolean algebra, propositional logic, functions, computability, proof techniques, graph theory, and elementary combinatorics. Lab. (D, QR)

**MST 121. Linear Algebra I. (3 h)**

Vectors, linear transformations and matrices, the invertible matrix theorem, determinants, eigenvalues and eigenvectors, and orthogonal projections. Credit not allowed for both MST 121 and 205. (D, QR)

**MST 165. Problem-Solving Seminar. (1 h)**

Weekly seminar designed for students who wish to participate in mathematical competition such as the annual Putnam examination. Not to be counted toward any major or minor offered by the department. May be repeated for credit. Pass/Fail only.

**MST 205. Introduction to Linear Algebra and Differential Equations. (4 h)**

Specific topics covered include: vector algebra, solving linear systems of equations, rank, vector spaces, determinants, eigenvalues, linear transformations, first order differential equations, second order linear ordinary differential equations, and power series solutions to differential equations. Credit not allowed for both MST 205 and MST 251 or for both MST 205 and MST 121. P-MST 112 or POI.

**MST 214. Multivariable Analysis. (3 h)**

Functions between Euclidean spaces, multivariable limits, differentiation, change of variables, line and surface integrals, vector fields, integration theorems for vector fields, Implicit & Inverse Function Theorems, Contraction Mapping Theorem, applications, other selected topics from analysis in multiple dimensions. P-MST 113, and MST 121 or MST 205.

**MST 225. Linear Algebra II. (3 h)**

A continuation of the study of linear algebra and its applications over the real and complex numbers to include vector spaces, the spectral theorem, and the singular value decomposition. Additional topics may include quadratic forms, Gershgorin's circle theorem, analytic functions of matrices, pseudoinverses, and other topics chosen by the instructor. P-MST 112 and 121 or POI.

**MST 243. Codes and Cryptography. (3 h)**

Essential concepts in coding theory and cryptography. Congruences, cryptosystems, public key, Huffman codes, information theory, and other coding methods. P - MST 117 or POI. (D)

**MST 251. Ordinary Differential Equations. (3 h)**

Linear equations with constant coefficients, linear equations with variable coefficients, and existence and uniqueness theorems for first order equations. Credit not allowed for both MST 251 and MST 205. P-MST 112 or POI. (D, QR)

**MST 253. Operations Research. (3 h)**

Mathematical models and optimization techniques. Studies in linear programming, simplex method, duality, sensitivity analysis, and other selected topics. P-MST 111 and MST 121, 205, or POI. (D, QR)

**MST 254. Optimization Theory. (3 h)**

Unconstrained and constrained optimization problems; Lagrange multiplier methods; second-order sufficient conditions; inequality constraints; and Karush-Kuhn-Tucker conditions. P - MST 113 and 121 or POI.

**MST 283. Topics in Mathematics. (1-3 h)**

Topics in mathematics not considered in regular courses or which continue study begun in regular courses. Content varies.

**MST 306. Advanced Mathematics for the Physical Sciences. (3 h)**

Advanced topics in linear algebra, special functions, integral transforms and partial differential equations. Not to be counted toward any major offered by the department except for the major in mathematical business. P - MST 205 or POI.

**MST 311. Introductory Real Analysis I. (3 h)**

Limits and continuity in metric spaces, sequences and series, differentiation and Riemann-Stieltjes integration, uniform convergence, power series and Fourier series, differentiation of vector functions, implicit and inverse function theorems. P - MST 117 or POI. (D)

**MST 312. Introductory Real Analysis II. (3 h)**

Limits and continuity in metric spaces, sequences and series, differentiation and Riemann-Stieltjes integration, uniform convergence, power series and Fourier series, differentiation of vector functions, implicit and inverse function theorems. P - MST 117 or POI. (D)

**MST 317. Complex Analysis I. (3 h)**

Analytic functions, Cauchy's theorem and its consequences, power series, and residue calculus. P - MST 113 or POI. (D)

**MST 321. Modern Algebra I. (3 h)**

Introduction to modern abstract algebra through the study of groups, rings, integral domains, and fields. P - MST 121 or POI. (D)

**MST 322. Modern Algebra II. (3 h)**

A continuation of modern abstract algebra through the study of additional properties of groups, rings, and fields. P - MST 117 and 321 or POI. (D)

**MST 324. Advanced Linear Algebra. (3 h)**

Thorough treatment of vector spaces and linear transformations over an arbitrary field, canonical forms, inner product spaces, and linear groups. P - MST 121 and 321 or POI. (D)

**MST 326. Numerical Linear Algebra. (3 h)**

Numerical methods for solving matrix and related problems in science and engineering using a high-level matrix-oriented language such as MATLAB. Topics will include systems of linear equations, least squares methods, and eigenvalue computations. Special emphasis given to applications. Also listed as CSC 352. P-MST 112 and MST 121 or 205, or POI. (D)

**MST 331. Geometry. (3 h)**

An introduction to axiomatic geometry including a comparison of Euclidean and non-Euclidean geometries. P - MST 117 or POI. (D)

**MST 333. Introductory Topology. (3 h)**

Topics vary and may include knot theory, topological spaces, homeomorphisms, classification of surfaces, manifolds, Euler characteristic, and the fundamental group. P - MST 117 or POI.

**MST 334. Differential Geometry. (3 h)**

Introduction to the theory of curves and surfaces in two and three dimensional space, including such topics as curvature, geodesics, and minimal surfaces. P - MST 113 or POI. (D)

**MST 345. Elementary Number Theory. (3 h)**

Properties of integers, congruences, and prime numbers, with additional topics chosen from arithmetic functions, primitive roots, quadratic residues, Pythagorean triples, and sums of squares. P-MST 117. (D)



**MST 346. Modern Number Theory. (3 h)**

A selection of number theory topics of recent interest. Some examples include elliptic curves, partitions, modular forms, the Riemann zeta function, and algebraic number theory. P-MST 117. (D)

**MST 347. Graph Theory. (3 h)**

Paths, circuits, trees, planar graphs, spanning trees, graph coloring, perfect graphs, Ramsey theory, directed graphs, enumeration of graphs, and graph theoretic algorithms. P-MST 117 or POI. (D)

**MST 348. Combinatorial Analysis I. (3 h)**

Enumeration techniques, generating functions, recurrence formulas, the principle of inclusion and exclusion, Polya theory, graph theory, combinatorial algorithms, partially ordered sets, designs, Ramsey theory, symmetric functions, and Schur functions. P - MST 117 or POI. (D)

**MST 349. Combinatorial Analysis II. (3 h)**

Enumeration techniques, generating functions, recurrence formulas, the principle of inclusion and exclusion, Polya theory, graph theory, combinatorial algorithms, partially ordered sets, designs, Ramsey theory, symmetric functions, and Schur functions. P - MST 117 or POI. (D)

**MST 351. Introduction to Mathematical Modeling. (3 h)**

Introduction to the mathematical modeling, analysis and simulation of continuous processes using MATLAB, Mathematica or Maple. Topics include dimensional analysis, stability analysis, bifurcation theory, one-dimensional flows, phase plane analysis, index theory, limit cycles, chaotic dynamics, hyperbolic conservation laws and traveling waves. P-MST 121 and 251 or POI.

**MST 352. Partial Differential Equations. (3 h)**

A detailed study of partial differential equations, including the heat, wave, and Laplace equations, using methods such as separation of variables, characteristics, Green's functions, and the maximum principle. P - MST 113 and 251 or POI. (D)

**MST 353. Probability Models. (3 h)**

Introduction to probability models, Markov chains, Poisson processes and Markov decision processes. Applications will emphasize problems in business and management science. Also listed as STA 353. P-MST 111 and MST 121 or 205, or POI. (D)

**MST 354. Discrete Dynamical Systems. (3 h)**

Introduction to the theory of discrete dynamical systems as applied to disciplines such as biology and economics. Includes methods for finding explicit solutions, equilibrium and stability analysis, phase plane analysis, analysis of Markov chains, and bifurcation theory. P - MST 112 and 121 or POI. (D)

**MST 355. Introduction to Numerical Methods. (3 h)**

Numerical computations on modern computer architectures; floating point arithmetic and round-off error. Programming in a scientific/engineering language such as MATLAB, C, or FORTRAN. Algorithms and computer techniques for the solution of problems such as roots of functions, approximation, integration, systems of linear equations and least squares methods. Also listed as CSC 355. P-MST 112 and MST 121 or 205, or POI. (D)

**MST 357. Probability. (3 h)**

Probability distributions, mathematical expectation, and sampling distributions. MST 357 covers much of the material on the syllabus for the first actuarial exam. Also listed as STA 310. P-MST 112 or 205 or POI. (D)

**MST 359. Networks: Models and Analysis. (3 h)**

A course in fundamental network theory concepts, including measures of network structure, community detection, clustering, and network modelling and inference. Topics also draw from recent advances in the analysis of networks and network data, as well as applications in economics, sociology, biology, computer science, and other areas. Also listed as STA 352. P-MST 117 or MST 121 or MST 205 and one course in STA at the 200 level or above. (D)

**MST 372. Math, Statistics, and Society. (1-3 h)**

A survey of mathematical and statistical applications arising from problems in politics, social justice, or racial justice; and/or an examination of instances, present and historical, where mathematics and statistics function as a tool promoting inclusion or exclusion; and/or an exploration of mathematics and statistics as human endeavors and contributions from diverse populations. Topics vary by instructor. May not be counted toward any major or minor offered in the department. May be repeatable for credit with prior approval of the department. Pass/Fail only.

**MST 381. Individual Study. (1-3 h)**

A course of independent study directed by a faculty advisor. By prearrangement.

**MST 383. Advanced Topics in Mathematics. (1-3 h)**

Topics in mathematics not considered in regular courses or which continue study begun in regular courses. Content varies.

**MST 391. Senior Seminar Preparation. (1 h)**

Independent study or research directed by a faculty advisor by prearrangement with the adviser.

**MST 392. Senior Seminar Presentation. (1 h)**

Preparation of a paper, followed by a one-hour oral presentation based upon work in MST 391.

## Statistics (STA)

**STA 107. Explorations in Statistics. (3 h)**

Introduction to statistical literacy and the role of statistics in settings such as elections, medicine, sports, and the sciences. Topics vary by instructor. (D, QR)

**STA 111. Elementary Probability and Statistics. (4 h)**

Data collection and visualization, exploratory analysis, introductory probability, inference techniques for one variable, and statistical literacy. Lab. (D, QR)

**STA 112. Introduction to Regression and Data Science. (3 h)**

A foundational course in regression and data science. The course introduces data analysis through statistical computing in R, least-squares and logistic regression, model selection, and data visualization. P-STA 111 or POI. (D, QR)

**STA 175. Competitions. (1-3 h)**

Seminar designed for students who wish to participate in statistics and/or data analysis competitions. Not to be counted toward any major or minor offered by the department. May be repeated for credit. Pass/Fail only.

**STA 247. Design and Sampling. (3 h)**

Experimental designs, observational studies, survey design and estimation with stratified, cluster, and other sampling schemes. P-STA 111 or STA 212 or POI. (D)

**STA 279. Topics in Statistics. (1-3 h)**

Topics in statistics not considered in regular courses, or which continue study begun in regular courses. Content varies.

**STA 310. Probability. (3 h)**

Distributions of discrete and continuous random variables, sampling distributions. Covers much of the material on the syllabus for the first actuarial exam. Also listed as MST 357. P-MST 112 or POI. (D)

**STA 311. Statistical Inference. (3 h)**

Derivation of point estimators, hypothesis testing, and confidence intervals, using both frequentist and Bayesian approaches. P-STA 310 or MST 357 or POI. (D)

**STA 312. Linear Models. (3 h)**

Theory of estimation and testing in linear models. Topics include least squares and the normal equations, the Gauss-Markov Theorem, testing general linear hypotheses, model selection, and applications. P-MST 121 or 205, and STA 310 or MST 357. (D)

**STA 352. Networks: Models and Analysis. (3 h)**

A course in fundamental network theory concepts, including measures of network structure, community detection, clustering, and network modelling and inference. Topics also draw from recent advances in the analysis of networks and network data, as well as applications in economics, sociology, biology, computer science, and other areas. Also listed as MST 359. P-MST 117 or MST 121 or MST 205, and one course in STA at the 200 level or above. (D)

**STA 353. Probability Models. (3 h)**

Introduction to probability models, Markov chains, Poisson processes and Markov decision processes. Applications will emphasize problems in business and management science. Also listed as MST 353. P-MST 111, and MST 121 or MST 205. (D)

**STA 362. Multivariate Statistics. (3 h)**

Multivariate and linear methods for classification, visualization, discrimination, and analysis of high dimensional data. P-STA 212 and MST 121 or MST 205, or POI. (D)

**STA 363. Introduction to Statistical Learning. (3 h)**

An introduction to supervised learning. Topics may include lasso and ridge regression, splines, generalized additive models, random forests, and support vector machines. P-STA 212 and MST 121 or 205, or POI, experience with statistical computing. (D)

**STA 364. Computational and Nonparametric Statistics. (3 h)**

Computationally intensive statistical methods. Topics include simulation, Monte Carlo integration and Markov Chain Monte Carlo, sub-sampling, and non-parametric estimation and regression. Students will make extensive use of statistical software throughout the course. P-STA 111 or STA 212, and either STA 310 or MST 357, or POI. (D)

**STA 368. Time Series and Forecasting. (3 h)**

Methods and models for time series processes and autocorrelated data. Topics include model diagnostics, ARMA models, spectral methods, computational considerations, and forecasting error. P-STA 212, and either STA 310 or MST 357, or POI. (D)

**STA 379. Advanced Topics in Statistics. (1-3 h)**

Topics in statistics not considered in regular courses or which continue study begun in regular courses. Content varies.

**STA 381. Applied Statistics Capstone. (2 h)**

Students integrate knowledge acquired throughout their degree program. Topics include developing a research plan, statistical writing, data visualization, and data ethics. Students will communicate statistical results to both technical and non-technical audiences through written reports and oral presentations. Offered fall semester. P-senior STA major.

**STA 383. Individual Study. (1-3 h)**

A course of independent study directed by a faculty adviser. By prearrangement.

**STA 391. Senior Research Capstone I. (1 h)**

Independent study or research directed by a faculty adviser by prearrangement with the adviser.

**STA 392. Senior Research Capstone II. (1 h)**

Preparation of a paper, followed by an oral presentation based upon work completed in STA 391.

**Faculty**

**Chair** Sarah Raynor

**Associate Chair** Robert Erhardt

**Wake Forest Taylor Professor** Stephen Robinson

**Professors** Edward Allen, Kenneth Berenhaut, Jennifer Erway Fey, Hugh Howards, Miaohua Jiang, Ellen E. Kirkman, Sarah Raynor

**Sterge Faculty Fellows and Associate Professors** Sarah Mason, Jeremy Rouse

**Associate Professors** Robert Erhardt, Staci Hepler, W. Frank Moore, R. Jason Parsley

**Sterge Faculty Fellows and Assistant Professors** Abbey Bourdon, John Gemmer

**Assistant Professors** Ciaran Evans, Claudia, Leandro Lichtenfelz, Lucy D'Agostino McGowan, John Holmes, Emily Huang, Sneha Jadhay

**Assistant Teaching Professor** Justin Allman, Nicole Dalzell, Lynne Yengulalp

**Visiting Assistant Professors** Guillermo Alesandroni, Duff Baker-Jarvis, Zachary Letterhos, Qing Liu, Rajan Puri, Michael Roberts

**Teacher-Scholar Postdoctoral Fellows** Kaitlin Hill, Thomas Kindred, Tolulope Oke, Mostafa Rezapour, Lori Watson

**Professor Emeritus and Part-time Instructor** Richard Carmichael

**Applied Mathematics, B.S.**

**Requirements**

The bachelor of science in applied mathematics requires the following:

Code	Title	Hours
MST 112	Calculus with Analytic Geometry II	4
MST 113	Multivariable Calculus	4
MST 117	Discrete Mathematics	4
MST 121	Linear Algebra I	3
MST 225	Linear Algebra II	3
MST 251	Ordinary Differential Equations	3
MST 311	Introductory Real Analysis I	3
MST 351	Introduction to Mathematical Modeling	3
MST 326/ CSC 352	Numerical Linear Algebra	3
or MST/CSC 355	Introduction to Numerical Methods	
MST 357/ STA 310	Probability	3
Choose one of the following:		3
STA 311	Statistical Inference	
STA 312	Linear Models	
STA 362	Multivariate Statistics	

STA 364	Computational and Nonparametric Statistics	
Choose 3 additional 3-hour MST or STA courses numbered 200 or above *		9
Choose one of the following:		
CSC 111	Introduction to Computer Science	4
CSC 112	Fundamentals of Computer Science	4
Choose one year-long sequence outside of mathematics and statistics chosen from the following:		
CSC 201 or 221, and one additional CSC course numbered 200 or above		
PHY 113 & PHY 114	General Physics I and General Physics II	
CHM 111 & CHM 280	College Chemistry I and College Chemistry II	
BIO 150 & BIO 160	Biology I and Biology II	
a sequence approved by the applied mathematics major adviser		

\* excluding MST 205, MST 306, and MST 381

To declare this major, at least three of MST 111, MST 112, MST 113, MST 117, MST 121 and STA 112 must be completed with a grade of at least a C or through AP credit.

## Honors

To be graduated with the designation "Honors in Mathematics," "Honors in Applied Mathematics," or "Honors in Mathematical Business," students must satisfactorily complete a senior research paper, and they must have a minimum grade point average of 3.5 in the major and 3.0 in all college coursework. For additional information, members of the departmental faculty should be consulted.

## Mathematical Business, B.S. Requirements

Students interested in pursuing this joint major must be granted formal admission to the program upon application to the School of Business' Committee on Admissions, Continuation, and Scholarships. To graduate from Wake Forest University with a major in mathematical business, the student must satisfy the requirements for graduation of both the Department of Mathematics and Statistics and the School of Business. This interdisciplinary program, consisting of no more than 51.5 hours, prepares students for careers in business with a strong background in mathematics. The major has the following course requirements:

Code	Title	Hours
<b>Required Major Courses</b>		
MST 113	Multivariable Calculus	4
MST 121	Linear Algebra I	3
MST 253	Operations Research	3
STA 112	Introduction to Regression and Data Science	3
MST/STA 353 or STA 310	Probability Models or Probability	3
ACC 221	Introductory Management Accounting	3

BEM 211	Organizational Behavior	3
BEM 221	Principles of Marketing	3
BEM 241	Production and Operations Management	3
BEM 251	Management Information Systems	3
BEM 261	Legal Environment of Business	3
BEM 388	Management Simulation	1.5
BEM 392	Seminar in Mathematical Business Analysis	3
FIN 231	Principles of Finance	3
Select a minimum of two additional courses *		6

### Prerequisites for Admission

ACC 111	Introductory Financial Accounting	3
ECN 150	Introduction to Economics	3
MST 112	Calculus with Analytic Geometry II	4
STA 112	Introduction to Regression and Data Science	3

### Recommended Electives

BEM 383	Seminar in Negotiations	3
BEM 371 or BEM 372	Strategic Management or Strategic Management in Entrepreneurial Firms	3
CSC 111 & CSC 112	Introduction to Computer Science and Fundamentals of Computer Science **	8
STA 362	Multivariate Statistics **	3
STA 363	Introduction to Statistical Learning **	3

\* Chosen from among mathematics, statistics, economics, and business, with at least one being a mathematics or statistics course (chosen from 3-hour courses at the 300-level or higher), excluding MST 381.

\*\* CSC 111 and/or CSC 112 and STA 362 and/or STA 363 are strongly recommended electives for the major.

## Honors

To be graduated with the designation "Honors in Mathematics," "Honors in Applied Mathematics," or "Honors in Mathematical Business," students must satisfactorily complete a senior research paper, and they must have a minimum grade point average of 3.5 in the major and 3.0 in all college coursework. For additional information, members of the departmental faculty should be consulted.

## Mathematical Economics, B.S. Requirements

The Department of Mathematics and Statistics and the Department of Economics offer a joint major leading to a bachelor of science degree in mathematical economics. This interdisciplinary program offers the student an opportunity to apply mathematical methods to the development of economic theory, models, and quantitative analysis. The major has the following course requirements:

Code	Title	Hours
MST 112	Calculus with Analytic Geometry II	4
MST 113	Multivariable Calculus	4
MST 121	Linear Algebra I	3
MST 254	Optimization Theory	3
ECN 150	Introduction to Economics	3

ECN 210	Intermediate Mathematical Microeconomics	3
ECN 211	Intermediate Mathematical Macroeconomics	3
ECN 215	Econometric Theory and Methods	3
ECN 318	Advanced Topics in Mathematical Economics	3
Select one of the following:		3
MST 354	Discrete Dynamical Systems	
ECN 316	Game Theory	
ECN 317	Market Design	
Select one of the following:		3
ECN 322	Monetary Theory and Policy	
ECN 323	Financial Markets	
ECN 352	International Finance	
ECN 374	Topics in Macroeconomics	
ECN 375	Macroeconomic Models	
Select two additional courses with the approval of the program advisers		6

Students selecting the joint major must receive permission from both the Department of Mathematics and Statistics and the Department of Economics. Prior to declaring the major, students must have a minimum grade B- or AP credit in ECN 150 and MST 112, or else have permission from both the Department of Economics and Department of Mathematics and Statistics. Graduation requirements include a grade of at least a C- in MST 113, MST 121, ECN 210 and ECN 211.

## Honors

Students who have a GPA of at least 3.0 overall and 3.3 in courses in the mathematical economics major and who complete the research course ECN 399 or MST 391 and MST 392 with a minimum grade of B- will be considered by the faculty for the graduation distinction, "Honors in Mathematical Economics."

## Mathematical Statistics, B.A.

### Requirements

Requires:

Code	Title	Hours
MST 112	Calculus with Analytic Geometry II	4
MST 117	Discrete Mathematics	4
MST 121	Linear Algebra I	3
STA 112	Introduction to Regression and Data Science	3
STA 310/ MST 357	Probability	3
STA 311	Statistical Inference	3
STA 312	Linear Models	3
Select one of the following:		4
CSC 111	Introduction to Computer Science	
CSC 112	Fundamentals of Computer Science	

Select three additional 3 or 4 hour courses from either MST 113 or STA/MST numbered 200 or above of which at least one must be numbered above 300. \*

\* Excluding MST 205, MST 306, MST 381, and STA 383.

## Honors

To graduate with the designation "Honors in Mathematical Statistics," students must satisfactorily complete STA 391 and STA 392, and they must have a minimum grade point average of 3.5 in the major and 3.0 in all college coursework.

## Mathematical Statistics, B.S.

### Requirements

Requires:

Code	Title	Hours
MST 112	Calculus with Analytic Geometry II	4
MST 113	Multivariable Calculus	4
MST 117	Discrete Mathematics	4
MST 121	Linear Algebra I	3
MST 311	Introductory Real Analysis I	3
STA 112	Introduction to Regression and Data Science	3
STA 310/ MST 357	Probability	3
STA 311	Statistical Inference	3
STA 312	Linear Models	3
Select one of the following:		
STA 381	Applied Statistics Capstone	2
STA 391 & STA 392	Senior Research Capstone I and Senior Research Capstone II	2
Select one of the following:		4
CSC 111	Introduction to Computer Science	4
or CSC 112	Fundamentals of Computer Science	
Select at least three additional 3-hour courses in STA or MST numbered 200 or above of which at least one must be numbered above 300 *		9

\* Excluding MST 205, MST 306, MST 381, and STA 383.

## Honors

To graduate with the designation "Honors in Mathematical Statistics," students must satisfactorily complete STA 391 and STA 392, and they must have a minimum grade point average of 3.5 in the major and 3.0 in all college coursework.

## Mathematics, B.A.

### Requirements

Requires:

Code	Title	Hours
MST 112	Calculus with Analytic Geometry II	4
MST 113	Multivariable Calculus	4

MST 117	Discrete Mathematics	4
MST 121	Linear Algebra I	3
MST 321	Modern Algebra I	3
Select one of the following:		3
MST 214	Multivariable Analysis	
MST 311	Introductory Real Analysis I	
MST 317	Complex Analysis I	
Select at least four additional 3-hour MST courses numbered higher than 109 or STA courses numbered higher than 111, at most two of which can be from STA. At least two of these electives must be numbered above 300 and at most one of those can be from STA.*		12

\* Excluding MST 205, MST 306, MST 381, STA 381, and STA 383.

## Honors

To be graduated with the designation "Honors in Mathematics," "Honors in Applied Mathematics," or "Honors in Mathematical Business," students must satisfactorily complete a senior research paper, and they must have a minimum grade point average of 3.5 in the major and 3.0 in all college coursework. For additional information, members of the departmental faculty should be consulted.

## Mathematics, B.S.

### Requirements

Requires:

Code	Title	Hours
MST 112	Calculus with Analytic Geometry II	4
MST 113	Multivariable Calculus	4
MST 117	Discrete Mathematics	4
MST 121	Linear Algebra I	3
MST 225	Linear Algebra II	3
MST 311	Introductory Real Analysis I	3
MST 321	Modern Algebra I	3
MST 391	Senior Seminar Preparation	1
MST 392	Senior Seminar Presentation	1
Select at least six additional 3-hour MST courses numbered higher than 109 or STA courses numbered higher than 111, at most three of which can be from STA. At least three of these electives must be numbered above 300, and at most one of those can be from STA.*		18

\* Excluding MST 205, MST 306, MST 381, STA 381, and STA 383.

## Honors

To be graduated with the designation "Honors in Mathematics," "Honors in Applied Mathematics," or "Honors in Mathematical Business," students must satisfactorily complete a senior research paper, and they must have a minimum grade point average of 3.5 in the major and 3.0 in all college coursework. For additional information, members of the departmental faculty should be consulted.

## Mathematics, Minor

### Requirements

Requires:

Code	Title	Hours
MST 112	Calculus with Analytic Geometry II	4
MST 113	Multivariable Calculus	4
or MST 121	Linear Algebra I	
Select four other MST or STA courses of at least 3 hours each		12-16

\* Numbered higher than MST 105, two of which must be numbered above 200. Credit is allowed for either MST 107 or STA 111, but not both.

Students may not complete both a Minor in Mathematics and a Minor in Statistics without prior departmental approval.

## Statistics, Minor

### Requirements

Requires:

Code	Title	Hours
STA 112	Introduction to Regression and Data Science	3
STA 362	Multivariate Statistics	3
or STA 363	Introduction to Statistical Learning	
Select four electives from amongst STA 111-379 (Excluding STA 175) or the following courses: *		12-16
MST 117	Discrete Mathematics	
MST 121	Linear Algebra I	
MST 205	Introduction to Linear Algebra and Differential Equations	
ANT 380	Anthropological Statistics	
BIO 380	Biostatistics	
BEM 202	Quantitative Analysis II	
BEM 324	Marketing Research	
BEM 329	Marketing Analytics	
COM 220	Empirical Research in Communication	
ECN 209	Applied Econometrics	
ECN 215	Econometric Theory and Methods	
FIN 203	Applied Quantitative Analysis for Finance	
HES 262	Statistics in the Health Sciences	
HES 360	Epidemiology	
POL 280	Research Methods	
PSY 310	Methods in Psychological Research	
PSY 311	Research Methods I	
PSY 312	Research Methods II	
SOC 271	Social Statistics	

\* At least one elective must be in STA at the 200 or 300 level. At most two courses outside of STA and MST may count towards the statistics minor.

Students are responsible for satisfying prerequisites for all courses selected for the statistics minor. Students may not complete both



a Minor in Mathematics and a Minor in Statistics without prior departmental approval.

## Medieval and Early Modern Studies

### Interdisciplinary Minor

Medieval and Early Modern studies involve faculty from various departments at Wake Forest University, among them English, history, art history, classics, romance languages, German, philosophy, music and religion. The program integrates practices of thinking across periods, cultures, territories, and disciplines, even as Medieval Studies at Wake Forest continues to emphasize the importance of intensive training in disciplinary knowledge and practice. One of the greatest values of our program is that it is one of the central places at Wake Forest University where students experience interdisciplinarity. In fact, this program has been an inspiration to and model for other developing programs. Among areas of study in the humanities, medieval and early modern cultures are perhaps most naturally cross-disciplinary.

What we think of as modern culture and modern institutions were founded in the Middle Ages. The study of the Middle Ages offers us the opportunity to examine the formation of western civilization and literature in the aftermath of the fall of Rome. Early Modern studies enables us to trace the transformation of late medieval society and culture into an entirely new epoch, the Renaissance, which was an extremely innovative period that reconfigured all the disciplines and set the stage for developments in modern science, politics, economics, social organization, and the arts.. This program brings medieval and early modern studies into an ever more complex, inter-dependent, and internationalized twenty-first century, emphasizing the interrelationship of culture, ideas, technologies, religions, and movements across periods of time and geography.

## Contact Information

Medieval and Early Modern Studies (<http://college.wfu.edu/medievalstudies/>)  
Kirby Hall 313  
Phone 336-758-4497

## Programs

### Minor

- Medieval and Early Modern Studies, Minor

## Faculty

**Coordinator, Reynolds Professor of English** Herman Rapaport

## Medieval and Early Modern Studies, Minor

## Requirements

The interdisciplinary minor in medieval and early modern studies requires 18 hours, chosen from at least three different departments. Courses from the student's major may count in the minor. Students have the opportunity to attend the six-week Summer Medieval Program at Oxford University in England, for which they receive 4.5 hours (two courses) which count toward the minor. (For details about application to the

Oxford program, and possible financial aid, consult Gale Sigal in the English department.)

Courses may be chosen from the following list. Additional elective courses may have been approved since publication of this bulletin. The program coordinator maintains a complete list of all approved elective courses. For course descriptions, see the relevant department's listings in this publication.

## Electives for Medieval and Early Modern Studies

Code	Title	Hours
ART 252	Romanesque Art and Architecture	3
ART 253	The Gothic Cathedral	3
ART 254	Luxury Arts in the Middle Ages	3
ART 267	Early Italian Renaissance Art	3
ART 268	16th Century Art in Italy: Magnificence and Reform	3
ART 269	Venetian Renaissance Art	3
ART 270	Northern Renaissance Art	3
ART 272	17th-Century European Art: Politics, Power and Patronage	3
ART 274	17th-Century Dutch Painting	3
ART 396	Art History Seminar (when topic is on Medieval and Byzantine art)	4
ENG 305	Old English Language and Literature	3
ENG 308	Beowulf	3
ENG 310	The Medieval World	3
ENG 311	The Legend of Arthur	3
ENG 312	Medieval Poetry	3
ENG 313	Roots of Song	3
ENG 315	Chaucer	3
ENG 320	British Drama to 1642	3
ENG 323	Shakespeare	3
ENG 325	16th-Century British Literature	3
ENG 326	Studies in English Renaissance Literature	3
ENG 327	Milton	3
ENG 328	17th-Century British Literature	3
FRH 370	Seminar in French and Francophone Studies (periodically offered in medieval studies)	3
GER 380	German Literature before 1700	3
GES 345	History of the German Language	3
GES 391	Germanic Myths and Monsters	3
HST 119	Venice and the World	3
HST 206	The Early Middle Ages	3
HST 207	The High Middle Ages Through the Renaissance	3
HST 209	Europe: From Renaissance to Revolution	3
HST 217	France to 1774	3
HST 223	The British Isles to 1750	3
HST 242	Middle East before 1500	3
HST 311	Special Topics in History (when topic is medieval)	3

HON 310	The Medieval World: Special Topics	3
HMN 225	Literature, Travel, and Discovery (when topic is medieval)	3
ITA 329	Love, Gender, and Diversity in Italian Epic	3
ITA 340	Traveling with Muhammad and Dante	3
ITA 342	Boccaccio's Decameron or "Sex in the City": Rethinking Community in Medieval Florence	3
LAT 120	Reading Medieval Latin	1.5-3
PHI 237	Medieval Philosophy	3
REL 368	Protestant and Catholic Reformations	3
REL 372	History of Christian Thought	3
SPA 330	The Debate about Woman in Late Medieval Spain	3
SPA 331	Medieval Spain: A Cultural and Literary Perspective	3
SPA 332	The Golden Age of Spain	3
SPA 333	The Spain of Don Quijote	3
SPA 341	Latin American Historical Fiction: Memory, Myth, and Social Justice	3
THE 310	History of Western Theatre I (Beginnings to 1642)	3

Students intending to minor in medieval studies should consult the coordinator, preferably during the sophomore year.

## Middle East and South Asia Studies

### Interdisciplinary Minor

The Middle East and South Asia Studies Program began as an interdisciplinary minor in 2004. Since that time, the Program has grown rapidly to include twenty-three faculty members distributed across ten departments of the college and the Divinity School and to graduate around 25 students each year. The Program also administers summer study abroad programs in Morocco, India, Nepal, Indonesia, and Egypt and mentors students' study abroad experiences and overseas research across the region. Intended as an interdisciplinary space for faculty and students with an academic interest across region that encompasses the Middle East and South Asia, the Program regularly sponsors guest lectures, film series, workshops, and international conferences on the campus of Wake Forest University.

The Middle East and South Asia Studies Program maintains institutional affiliations with the American Institute for Maghribi Studies (AIMS), the American Institute of Pakistan Studies (AIPS), the American Institute of Indian Studies (AIIS), and the American Institute for Sri Lankan Studies (AISLS).

## Contact Information

Middle East and South Asia Studies Program (<http://college.wfu.edu/mesasprogram/>)

## Programs Minors

- Arabic, Minor
- Middle East and South Asia Studies, Minor

## Courses Arabic (ARB)

### ARB 111. Elementary Arabic I. (3 h)

The first semester of a two-semester course designed for students with no or very limited knowledge of the language. Introduction to Arabic sounds and script as well as basic grammar, with oral and written drills and reading of simple texts. Focus is on laying the foundation for reading, writing, listening, and speaking skills in Modern Standard Arabic.

### ARB 112. Elementary Arabic II. (3 h)

The second semester of a two-semester course designed for students with no or very limited knowledge of the language. Mastery of Arabic sounds and script is assumed. Building of vocabulary and grammar through oral and written drills and reading of simple texts. Focus is on developing proficiency in reading, writing, listening, and speaking skills in Modern Standard Arabic. P-ARB 111.

### ARB 153. Intermediate Arabic I. (4 h)

Review of grammar and focus on the acquisition of more complex grammatical structures, vocabulary building, and expansion of reading, writing, listening, and speaking skills in Modern Standard Arabic. P-ARB 112.

### ARB 201. Intermediate Arabic II. (3 h)

Further building of vocabulary and grammar and expansion of reading, writing, listening, and speaking skills in Modern Standard Arabic. P-ARB 153.

### ARB 218. Standard Arabic Conversation I. (3 h)

A language course based on cultural material intended to develop students' aural skills and oral proficiency in Modern Standard Arabic by increasing vocabulary and reinforcing command of grammar. P-ARB 153.

### ARB 219. Standard Arabic Conversation II. (3 h)

A continuation of ARB 218. P-ARB 218 or POI.

### ARB 221. Colloquial Arabic Conversation I. (3 h)

Focus on a particular regional dialect of Arabic (e.g., Egyptian, Levantine, Iraqi, Gulf, or North African) to give students the listening and speaking skills necessary to communicate in everyday language in informal situations. Designed for students with no knowledge of the particular dialect being taught. Course may be repeated for credit for a different Arabic dialect. P-ARB 153 or POI.

### ARB 222. Colloquial Arabic Conversation II. (3 h)

A continuation of ARB 221. Designed for students with elementary knowledge of the dialect being taught. Course may be repeated for credit for a different Arabic dialect. P-ARB 221 in the same dialect or POI.

### ARB 230. Upper Intermediate Arabic I. (3 h)

With an emphasis on speaking and writing, this course will develop students' oral and written proficiency on an upper intermediate level of fluency. P—ARB 201.

### ARB 231. Upper Intermediate Arabic II. (3 h)

A continuation of ARB 230. P - ARB 230.

### ARB 288. Individual Study in Arabic Language or Cultural Studies. (1-3 h)

Course may be repeated for a total of 6 credit hours. P-POI.

### ARB 301. Advanced Arabic I. (3 h)

This course will develop students' oral, written, and reading proficiency on an advanced level of fluency. P - ARB 231.

### ARB 302. Advanced Arabic II. (3 h)

A continuation of ARB 301. P - ARB 301.

**ARB 305. Special Topics in Arabic. (1-3 h)**

Arabic language study with a particular limited focus, e.g., Quranic Arabic, composition, grammar, novels. May be repeated for credit if topic varies. P - ARB 153, 201, or POI depending on the topic.

**ARB 306. Special Topics in Arabic Studies. (3 h)**

Course in English offering in-depth study of particular aspects of Arabic language, literature or culture not included in the regular course offerings. May be repeated for credit when topics vary.

**ARB 324. Introduction to Arabic Literature. (3 h)**

Reading of selected texts in Arabic, ranging from pre-Islamic poetry to the Quran and Prophetic Hadiths to medieval fiction, nonfiction works like biographies and travel literature, and modern short stories, for the purpose of building vocabulary and reading skills, expanding knowledge of grammatical structures and literary genres, and deepening cultural understanding. P - ARB 231 or equivalent.

**ARB 325. Multimedia Arabic. (3 h)**

With a focus on current affairs in the Middle East and the Arabic-speaking world, students will read, listen to, and view authentic materials from various print and electronic media in Arabic. P - ARB 231.

**ARB 350. Classical Arab-Islamic Civilization through Literature. (3 h)**

Examines how Arabs and Muslims in classical and medieval times (600-1400 A.D.) approached the pleasures of worldly life, organized their social domain by ethics/law, constructed their worldview through religion, reacted to nature by science, and attempted to resolve their cultural inconsistencies through theology, philosophy, and mysticism. Also listed as HMN 350. (CD, D)

**ARB 351. Modern Arab World through Literature. (3 h)**

Study of the global significance of the 330 million Arabs as the fourth largest community in the world and Arabic as the fifth most widely spoken language from a historical and thematic perspective (1400 A.D. to the present) through literary selections covering the periods of premodernity, Arab renaissance, colonialism, state-building, and globalization. Also listed as ARB 351. (CD, D)

## Hindi-Urdu (HNU)

**HNU 111. Elementary Hindi-Urdu I. (3 h)**

Introduction to modern Hindi-Urdu. Designed for students with no knowledge of the language. Focus is on developing reading, writing, and conversation skills for practical contexts. Instruction in the Devanagari and Nastaliq scripts and the cultures of India and Pakistan. Fall only.

**HNU 112. Elementary Hindi-Urdu II. (3 h)**

Continued instruction in modern Hindi-Urdu. Students with previous background may place into this course with the instructor's permission. Focus is on developing reading, writing, and conversation skills for practical contexts. Instruction in the Devanagari and Nastaliq scripts and the cultures of India and Pakistan. Spring only. P-HNU 111.

**HNU 140. Introduction to the Hindi script (Devanagari). (1 h)**

Introduction to the Devanagari writing system used in Hindi, as well as other South Asian languages, including Nepali and Sanskrit. Includes an overview of the Hindi-Urdu sound system and language. Students with prior proficiency in spoken Hindi or Urdu may complete this course in preparation for entering Intermediate Hindi-Urdu (HNU 153 and 201).

**HNU 141. Introduction to the Urdu script (Nastaliq). (1 h)**

Introduction to the Nastaliq writing system used in Urdu, as well as Persian, Punjabi, and Kashmiri. Includes an overview of the Hindi-Urdu sound system and language. Students with prior proficiency in spoken Hindi or Urdu may complete this course in preparation for entering Intermediate Hindi-Urdu (HNU 153 and 201).

**HNU 153. Intermediate Hindi-Urdu I. (3 h)**

Second year of modern Hindi-Urdu. Students with comparable proficiency may place into this course with the instructor's permission. Focus is on building oral and written communication skills in a range of contexts. Exploration of the cultures of India and Pakistan through discussions of authentic materials. Instruction in Devanagari and Nastaliq scripts. Fall only. P-HNU 112.

**HNU 201. Intermediate Hindi-Urdu II. (3 h)**

Continued intermediate instruction in spoken and written Hindi-Urdu. Students with previous background may place into this course with the instructor's permission. Focus is on building oral and written communication skills in a range of contexts. Exploration of the cultures of India and Pakistan through discussions of authentic materials. Instruction in Devanagari and Nastaliq scripts. Spring only. P-HNU 153.

**HNU 287. Special Topics in Hindi-Urdu Language or Cultural Studies. (1-3 h)**

Selected themes and approaches to Hindi-Urdu language, culture, literature, drama, and/or film. May be repeated for credit when topic varies.

**HNU 288. Individual Study in Hindi-Urdu Language or Cultural Studies. (1-3 h)**

Course may be repeated for a total of 6 credit hours. P-POI.

## Middle East and South Asia Studies (MES)

**MES 110. Introductory Topics in Middle East and South Asia Studies. (1-3 h)**

Introductory level course on selected topics in Middle East and South Asia Studies. May be repeated for credit if course content differs. (CD)

**MES 210. Intermediate Topics in Middle East and South Asia Studies. (1-3 h)**

Intermediate level course on selected topics in Middle East and South Asia Studies. May be repeated for credit if course content differs. (CD)

**MES 310. Advanced Topics in Middle East and South Asia Studies. (1-3 h)**

Advanced level course in selected topics in Middle East and South Asia Studies. May be repeated for credit if course content differs. (CD)

**MES 390. Individual Study. (1-3 h)**

Designed to meet the needs and interests of selected students who have declared the minor. Carried out under the supervision of a faculty member affiliated with the Middle East and South Asia Studies program. P-POI.

## Faculty

**Program Co-Director and Professor of Politics and International Affairs**  
Charles H. Kennedy

**Program Co-Director and Associate Professor of History** Raisur Rahman

**Program Co-Director and Associate Professor of History** Charles Wilkins

**Assistant Professor of Arabic** A.Z. Obiedat

**Assistant Professor of Hindi-Urdu** Peter Knapczyk

## Arabic, Minor

## Requirements

Requires 12 hours above ARB 153. Must include at least one of the following core courses: ARB 201, ARB 230, ARB 231, ARB 301, ARB 302.

May include either English-language content course (ARB 350 or ARB 351) but not both. Study abroad is highly recommended but not required. Students must achieve a GPA of at least 2.0 in the minor.

## Middle East and South Asia Studies, Minor

### Requirements

The Middle East and South Asia Studies minor provides students with an opportunity to engage in a multidisciplinary study of the history, politics, literature, peoples, and cultures of the Middle East and South Asia. To fulfill the minor, students must complete 18 hours from an approved list of courses. Students may count no more than 10 hours from any of the foreign language offerings toward the minor. Additional elective courses may have been approved since publication of this bulletin. The program's co-directors maintain a complete list of all approved elective courses. For course descriptions, see the relevant department's listings in this publication. Some courses relevant to the minor are not taught on a regular basis; others are offered by visiting or temporary faculty.

### Electives for Middle East and South Asia Studies

Code	Title	Hours
ANT 334	People and Cultures of South Asia	3
ANT 383 & ANT 384	Field program in Cultural Anthropology and Field Program in Cultural Anthropology (when topic is appropriate)	6
ANT 385 & ANT 386	Special Problems Seminar and Special Problems Seminar (when topic is appropriate)	6
ARB 111 & ARB 112	Elementary Arabic I and Elementary Arabic II	6
ARB 153	Intermediate Arabic I	4
ARB 201	Intermediate Arabic II	3
ARB 218 & ARB 219	Standard Arabic Conversation I and Standard Arabic Conversation II	6
ARB 221 & ARB 222	Colloquial Arabic Conversation I and Colloquial Arabic Conversation II	6
ARB 230 & ARB 231	Upper Intermediate Arabic I and Upper Intermediate Arabic II	6
ARB 288	Individual Study in Arabic Language or Cultural Studies	1.5-3
ARB 301 & ARB 302	Advanced Arabic I and Advanced Arabic II	6
ARB 305	Special Topics in Arabic	3
ARB 324	Introduction to Arabic Literature	3
ARB 325	Multimedia Arabic	3
ARB 350	Classical Arab-Islamic Civilization through Literature	3
ARB 351	Modern Arab World through Literature	3
ART 104	Topics in World Art (when topic is appropriate)	3
ART 203	Islamic Art and Architecture	3
ART 204	South Asian Art and Architecture	3
ART 205	The Architecture of Devotion in South Asia	3

ART 206	Art and Empire: India and Europe, 1500-1900	3
ART 207	Building Empire: Early Modern Islamic Architecture	3
ART 208	Ottoman Art and Architecture	3
ART 286	Topics in Art and Architectural History (when topic is appropriate)	3
ART 351	Topics in Gender and Art (when topic is appropriate)	3
ART 396	Art History Seminar (when topic is appropriate)	4
COM 370	Special Topics (when topic is appropriate)	3
ENG 358	Postcolonial Literature	3
ENG 359	Studies in Postcolonial Literature	3
HNU 111 & HNU 112	Elementary Hindi-Urdu I and Elementary Hindi-Urdu II	6
HNU 140	Introduction to the Hindi script (Devanagari)	1
HNU 141	Introduction to the Urdu script (Nastaliq)	1
HNU 153 & HNU 201	Intermediate Hindi-Urdu I and Intermediate Hindi-Urdu II	6
HNU 287	Special Topics in Hindi-Urdu Language or Cultural Studies	1-3
HNU 288	Individual Study in Hindi-Urdu Language or Cultural Studies	1-3
HST 107	Middle East & the World	3
HST 109	Asia and the World	3
HST 242	Middle East before 1500	3
HST 243	Middle East since 1500	3
HST 250	Premodern South Asia	3
HST 251	Modern South Asia	3
HST 305	Medieval & Early Modern Iberia	3
HST 311	Special Topics in History (when topic is appropriate)	3
HST 321	Zionism, Palestine, and Israel in Historical Perspective	3
HST 334	Mystics, Monarchs, and Masses in South Asian Islam	3
HST 335	Hindus and Muslims in India, Pakistan, and Beyond	3
HST 343	The Silk Roads	3
HST 385	History through Film: Bollywood and the Making of Modern India	3
HST 387	The Last Great Muslim Empires	3
HST 388	Nation, Faith, and Gender in the Middle East	3
HST 389	The British Empire in the Middle East	3
HST 390	Research Seminar (when topic is appropriate)	4
HST 398	Individual Study (when topic is appropriate)	1-3
HST 399	Directed Reading (when topic is appropriate)	1-3
MUS 109	Introduction to the Music of World Cultures (when topic is appropriate)	3
or MUS 209	Music of World Cultures	

MUS 117	Gamelan Ensemble	1
MUS 134 & MUS 234	Music of Asia and Music of Asia	6
NLL 111 & NLL 112	Elementary Hebrew and Elementary Hebrew	6
NLL 153	Intermediate Hebrew	3
NLL 211 & NLL 212	Hebrew Literature and Hebrew Literature II	6
NLL 213	Studies in Modern Hebrew	3
NLL 301	Introduction to Semitic Languages	3
NLL 302 & NLL 303	Akkadian I and Akkadian II	6
NLL 310	Intermediate Readings in Classical Hebrew	1
NLL 311	Aramaic	3
NLL 321 & NLL 322	Introduction to Middle Egyptian I and Introduction to Middle Egyptian II	6
POL 241	Contemporary India	3
POL 242	Topics in Comparative Politics (when topic is appropriate)	3
POL 246	Politics and Policies in South Asia	3
POL 247	Islam and Politics	3
POL 250	Afghanistan, Pakistan, Iraq and U.S. Policy since 2001	3
POL 251	Politics of Forced Migration	3
POL 252	Topics in International Politics (when topic is appropriate)	3
POL 255	Terrorism and Asymmetric Conflict	3
POL 257	Politics of International Development	3
POL 259	Palestine and the Arab-Israeli Conflict	3
POL 263	U.S. Foreign Policy in the Middle East	3
POL 269	Topics in Political Theory (when topic is appropriate)	3
POL 274	Arab and Islamic Political Thought	3
POL 278	Politics and Identity	3
POL 282	Gandhi	3
POL 286	Topics in Political Science (when topic is appropriate)	3
POL 287	Individual Study (when topic is appropriate)	3
POL 288	Directed Reading (when topic is appropriate)	3
POL 300	Senior Seminar in Political Science (when topic is appropriate)	4
REL 104A	Introduction to Asian Religions	3
REL 104B	Introduction to South Asian Religions	3
REL 105	Monotheisms: Judaism, Christianity, and Islam	3
REL 108	Introduction to Hindu Traditions	3
REL 109	Introduction to Buddhist Traditions	3
REL 110	Introduction to Islamic Traditions	3
REL 113	Introduction to Jewish Traditions	3
REL 286 & REL 287	Directed Reading and Directed Reading (when topic is appropriate)	4
REL 312	The Critical Study of the Pentateuch	3

REL 313	Near Eastern Archeology	3
REL 355	Jewish Identities: Religion, Race, and Rights	3
REL 356	Faces of Modern Judaism	3
REL 362	Topics in Islam	3
REL 383	The Quran and the Prophet	3
REL 384	Islam and Law: Varieties in Interpretation and Expression	3
REL 385	Topics in South Asian Religions	3
REL 386	Indian Epics	3
REL 387	Priests, Warriors and Ascetics in Ancient India	3
REL 388	South Asian Women: Religion, Culture and Politics	3
REL 389	Islam in the West: Changes and Challenges	3
REL 390	Special Topics in Religion (when topic is appropriate)	3
WGS 377	Special Topics (when topic is appropriate)	3

## Honors

The honors designation in Middle East and South Asia Studies is a recognition of outstanding scholarship in the area, as evidenced by academic achievement, intellectual initiative and deep familiarity with the culture and peoples of the Middle East and South Asia. To receive honors in Middle East and South Asia Studies, highly qualified students must undertake focused individual research in some aspect of Middle East and/or South Asia studies or study abroad in at least one country in the region. Students are required to provide an oral presentation of their research findings or of their critical analysis of their study abroad experience at the spring honors colloquium that follows their return to campus. To receive honors in Middle East and South Asia Studies student must at the time of graduation have both a 3.6 GPA or higher in courses pursued for the minor and an overall GPA of 3.2 or higher. Interested students should contact one of the program directors for advising. An application can be found here (<https://mesas.wfu.edu/the-minor/honors/>).

## Military Science (MIL)

### Army

Completion of Army Reserve Officers' Training Corps (AROTC) requirements and recommendation for appointment by the Professor of Military Science may result in commissioning as a second lieutenant in the active or reserve force components of the Army of the United States, as determined by the Secretary of the Army.

The AROTC program is composed of the basic course and the advanced course.

Code	Title	Hours
<b>Basic Course</b>		
MIL 121	Introduction to the Army *	3
MIL 122	Foundations of Leadership	3
MIL 123	Leadership and Ethics *	3
MIL 124	Army Doctrine and Decision Making	3
May also be completed, partially or fully, by three alternative methods:		



Previous attendance of military initial entry training

A six-week long Cadet Initial Entry Training (CIET)

Constructive credit for other military service determined appropriate by the professor of military science

#### Advanced Course

MIL 225	Training Management and the Warfighting Functions	3
MIL 226	Applied Leadership in Small Unit Operations	3
MIL 227	The Army Officer	3
MIL 228	Company Grade Leadership	3
MIL 119	Advanced Leadership Lab **	1
MIL 120	Advanced Leadership Lab **	1

\* Students may take MIL 121 or MIL 123 without taking MIL 117 or MIL 118 if they are not currently receiving an ROTC scholarship. If they intend to pursue a scholarship or contract, participation is encouraged.

\*\* Required for all advanced courses.

### Basic Course

No military obligation is incurred by enrollment in the basic course, except by Army ROTC Scholarship cadets.

### Advanced Course

Enrollment in the advanced AROTC courses is only for students who have signed a service obligation which they will fulfill after graduation with the United States Army, Army Reserve, or Army National Guard, and they must also attend the five-week Advanced Camp, usually attended during the summer between the junior and senior years. Army ROTC scholarships are available to qualified applicants (both those already enrolled in the AROTC program and those not yet enrolled) through annual competition.

## Air Force

In addition to AROTC, students may participate in the Air Force Reserve Officer Training Corps (AFROTC) Program through North Carolina A&T State University in Greensboro in order to receive a commission as an active duty second lieutenant in the U.S. Air Force (USAF). The department offers a four-year program where students enroll at the beginning of their freshman year and continue through award of a bachelor's degree. The four-year program can be modified for students up until the beginning of the spring semester of a student's sophomore year.

Freshmen or sophomore students attend a 1-hour class and a 2-hour leadership laboratory each week in addition to two 1-hour physical training sessions. Students who compete favorably for the award of an Enrollment Allocation will attend a four-week summer field training program at Maxwell Air Force Base, AL. During the junior and senior years, students attend 3 hours of class, a 2-hour leadership laboratory, and two 1-hour physical training sessions.

For more information on the AFROTC Program, contact any instructor or the Unit Admissions Officer in the Department of Aerospace Studies, Campbell Hall, North Carolina A&T State University, telephone (336.334.7707). For course offerings visit this site (<https://www.ncat.edu/~afrotc/>).

## Contact Information

Department of Military Science (<http://college.wfu.edu/ROTC/>)

Phone 336-758-5545

## Courses

### Military Science (MIL)

#### MIL 114. Leadership. (1.5 h)

An examination of the fundamentals contributing to the development of a personal style of leadership with emphasis on the dimensions of junior executive management.

#### MIL 117. Leadership Laboratory. (0 h)

Basic military skills instruction designed to technically and tactically qualify the student for assumption of an officer leadership position at the small-unit level. Students learn the skills necessary to operate in a military environment and practical application of the basic leadership tenant. Focus is on teamwork, communication skills and application of basic military principles. Either Military Science 117 (fall) or 118 (spring) is required each semester for contracted AROTC cadets (including those conditionally contracted), advance designee scholarship winners.

#### MIL 118. Leadership Laboratory. (0 h)

Basic military skills instruction designed to technically and tactically qualify the student for assumption of an officer leadership position at the small-unit level. Students learn the skills necessary to operate in a military environment and practical application of the basic leadership tenant. Focus is on teamwork, communication skills and application of basic military principles. Either Military Science 117 (fall) or 118 (spring) is required each semester for contracted AROTC cadets (including those conditionally contracted), advance designee scholarship winners.

#### MIL 119. Advanced Leadership Lab. (1 h)

Focuses on practical application of time management, small unit organization, communication, and other leadership concepts learned in class to accomplish assigned missions. Laboratory sessions can be tactical (conducting a small unit mission) or managerial (solving an organizational problem). Grading is based on performance in leadership positions, teamwork, and application of principles from class instruction. MIL 227 and 228 cadets are required to plan training scenarios conducted at lab, supervise sessions, and build teams and future leaders through assessment and feedback. MIL 225 and 226 cadets will conduct training and be evaluated on their application of tactical and managerial skills learned in military science classes to solve problems or complete tactical missions. MIL 119 and 120 may be repeated once for credit.

#### MIL 120. Advanced Leadership Lab. (1 h)

Focuses on practical application of time management, small unit organization, communication, and other leadership concepts learned in class to accomplish assigned missions. Laboratory sessions can be tactical (conducting a small unit mission) or managerial (solving an organizational problem). Grading is based on performance in leadership positions, teamwork, and application of principles from class instruction. MIL 227 and 228 cadets are required to plan training scenarios conducted at lab, supervise sessions, and build teams and future leaders through assessment and feedback. MIL 225 and 226 cadets will conduct training and be evaluated on their application of tactical and managerial skills learned in military science classes to solve problems or complete tactical missions. MIL 119 and 120 may be repeated once for credit.

#### MIL 121. Introduction to the Army. (3 h)

Introduction to the skills critical for effective leadership included effective communication, teamwork, ethics, and cultural awareness. Cadets learn how the personal development of life skills such as critical thinking, goal setting, time management, physical fitness, and stress management relate to leadership, Officership, and the Army profession.

**MIL 122. Foundations of Leadership. (3 h)**

Introduction to army terms, philosophies, and basic leadership concepts. Builds individual skills and knowledge applicable to Army operations, both tactical and organizational, in order to develop students into exceptional leaders.

**MIL 123. Leadership and Ethics. (3 h)**

Explores the dimensions of creative and innovative leadership strategies and styles by developing an understanding of team dynamics and an assessment of personal leadership traits in order to develop team leadership capabilities. Cadets practice aspects of personal motivation and team building in the context of planning, executing, and assessing team exercises and participating in leadership labs.

**MIL 124. Army Doctrine and Decision Making. (3 h)**

Examines the challenges of leading tactical teams in the complex contemporary operating environment (COE). Highlights dimensions of terrain analysis, patrolling, and operation orders, cultural considerations, unit dynamics, interaction with the media and care for subordinate's physical and mental well-being. Places lessons learned from MIL 124 on the Army leadership framework and the dynamics of adaptive leadership in the context of military operations to prepare cadets for leadership roles as they enter the advanced courses.

**MIL 225. Training Management and the Warfighting Functions. (3 h)**

Challenges cadets to study, practice, and evaluate adaptive leadership skills as they are presented with challenging scenarios related to squad tactical operations. Cadets receive systematic and specific feedback on their leadership attributes and actions. Based on such feedback, as well as their own self-evaluations, cadets continue to develop their leadership and critical thinking abilities. The focus is developing cadets' tactical leadership abilities to enable them to succeed at ROTC's summer Advanced Camp. P - MIL 121 through MIL 124 (or equivalent credit as determined by the professor of military science).

**MIL 226. Applied Leadership in Small Unit Operations. (3 h)**

Uses increasingly challenging leadership opportunities to build cadet confidence and skills in leading tactical and garrison operations up to platoon level. Cadets review aspects of the range of Army operations and specifics of different functional areas within the Army. They also conduct military briefings and develop proficiency in garrison operation orders. Focus is on exploring, evaluating, and developing skills in decision-making, persuading, and motivating team members in the contemporary operating environment. Cadets are evaluated on what they know and do as leaders as they prepare to attend the ROTC summer Advanced Camp. P - MIL 121 through MIL 225 (or equivalent credit as determined by the professor of military science)

**MIL 227. The Army Officer. (3 h)**

This course transitions the focus of from being trained, mentored and evaluated as a cadet to learning how to train, mentor and evaluate underclass cadets. Cadets will learn the duties and responsibilities of an Army staff officer and apply the Military Decision Making Process, Army writing style and the Army's principles of training and training management. Cadets will learn about the special trust proposed by the U.S. Constitution to Army Officers- a trust above and beyond other professions. Cadets will learn Army values and ethics and how to apply them to everyday life as well as in the Contemporary Operating Environment. The cadets will learn about the officer's role in the Uniform Code of Military Justice, counseling subordinates, administrative actions and methods on how to best manage their career as an Army officer. P- MIL 121 through MIL 226 (or equivalent credit as determined by the professor of military science).

**MIL 228. Company Grade Leadership. (3 h)**

Continuation of MIL 227 with emphasis on the transition from cadet to officer. Explores the dynamics of leading military operations in the complex environment facing military officers. Cadets examine differences in customs and courtesies, military law, principles of war, and Rules of Engagement in the face of international terrorism. They also explore aspects of interacting with non-government organizations, civilians on the battlefield, and host nation support. Cadets will gain a foundation of knowledge regarding government and military policy based on hands-on case study scenarios involving current and past events. P- MIL 121 through MIL 227 (or equivalent credit as determined by the professor of military science).

**MIL 229. American Military History. (3 h)**

The American military experience with emphasis on the ideas and activities contributing to the development of the United States' unique military establishment. Particular emphasis on civilian control of the military. Credit not allowed for both MIL 229 and HST 369. P - POI.

## Faculty

**Professor** Lieutenant Colonel Lawrence A. Rubal

**Assistant Professors** Major Ryan P. Durling, 1LT Paul Dinh, Mr. Anthony Bradley, Master Sergeant David Saint-Val, Master Sergeant Rachel Mandzak

## Music (MUS)

The Department of Music offers courses in music history, music theory, composition, popular music, jazz, world music, as well as a wide variety of ensemble courses: orchestra, choirs, wind ensemble, jazz ensemble, Collegium musicum, chamber music, gamelan ensemble, Afro-Cuban drumming, and Chinese music ensemble. We also offer Individual Instruction in all instruments typically employed in orchestra, wind and jazz ensembles, as well as piano, voice, and classical guitar. The Wake Forest Concert Choir tours internationally on a two- to three-year cycle.

## Contact Information

Department of Music (<http://college.wfu.edu/music/>)  
Scales Fine Arts Center M309, Box 7345  
Phone 336-758-5026

## Programs

### Majors

- Music in Liberal Arts, B.A.
- Music Performance, B.A.

### Minor

- Music, Minor

## Courses

### Music (MUS)

**MUS 100. Music Recitals. (0 h)**

Recitals, concerts, and guest lectures sponsored by the Department of Music and the Secret Artists Series. (Specific attendance requirements will be established at the beginning of each semester.) Four semesters are required of music majors; three semesters are required of music minors. Pass/Fail only.

**MUS 101. Introduction to Western Music. (3 h)**

Basic theoretical concepts and musical terminology. Survey of musical styles, composers, and selected works from the Middle Ages through the present day. Satisfies the Division III requirement. May not count toward the majors or minor in music. (D)

**MUS 103. Music Production and Recording. (1.5 h)**

Introduction to modern recording techniques with hands-on experience in a multi-track recording studio. Topics to be addressed include basic acoustics of music, microphone techniques, digital audio workstation operation, and basic production techniques.

**MUS 104. Basic Music Reading and Skills. (1.5 h)**

A study of the fundamentals of music theory including key signatures, scales, intervals, chords, and basic sight-singing and ear-training skills. Designed for students wishing to participate in University ensembles and those wishing to pursue vocal, instrumental, and compositional instruction. May not count toward the majors or minor in music.

**MUS 106. Electronic Music Lab. (1.5 h)**

Foundations of MIDI protocol, with particular attention to the study and application of sequencers, notational programs, and synthesizers. Development of skills in written notation through use of computerized programs. Taught in the Music Computer Lab. P-MUS 101, 104, or POI.

**MUS 108. Alexander Technique for Musical Performers. (0.5 h)**

An educational process that uses verbal and tactile feedback to teach improved use of the student's body by identifying and changing poor and inefficient habits that cause stress, fatigue, and pain in the musical performer. This is a course designed to teach the performer to minimize physical effort and maximize expression. Meets two hours per week. Pass/Fail only.

**MUS 109. Introduction to the Music of World Cultures. (3 h)**

Survey of music in selected societies around the world. Topics will be selected from the following areas of concentration: India, East Asia, sub-Saharan Africa, western Europe, Latin America, and vernacular music of the U.S. (including jazz). May not count toward the majors or minor in music. Meets concurrently with MUS 209. Credit cannot be received for both MUS 109 and 209. (CD, D)

**MUS 111. Opera Workshop. (1 h)**

Study, staging, and performance of standard and contemporary operatic works. P-POI.

**MUS 112. Collegium Musicum Instrumental. (1 h)**

An ensemble stressing the performance practices and the performance of music of the medieval, Renaissance, and Baroque eras.

**MUS 113. Orchestra. (1 h)**

Study and performance of orchestral works from the classical and contemporary repertoire. P-Audition.

**MUS 114. Collegium Musicum Vocal. (1 h)**

An ensemble stressing the performance practices and the performance of music of the medieval, Renaissance, and Baroque eras. P-Audition.

**MUS 115. Concert Choir. (1 h)**

Select large mixed ensemble which travels internationally and performs the significant choral literature from the past five centuries. P-Audition.

**MUS 116. Chamber Choir. (1 h)**

Select small mixed ensemble which performs repertoire from classical choral genres, musical theatre, vocal jazz, and a cappella. P-audition.

**MUS 117. Gamelan Ensemble. (1 h)**

Cultural study and performance of traditional and new compositions for Balinese gamelan (percussion orchestra) and Balinese dance.

**MUS 118. Wind Ensemble. (1 h)**

Study and performance of music for mixed ensemble of winds, brass, and percussion. P-Audition.

**MUS 119. Symphonic Band. (1 h)**

Study and performance of music for symphonic band. Performs on campus.

**MUS 120. Chamber Music. (1 h)**

Study and performance of chamber music. Performers are strongly urged to participate in a larger ensemble as well. P-POI.

**MUS 120A. Chamber Music-Percussion. (1 h)****MUS 120B. Chamber Music-String. (1 h)****MUS 120C. Chamber Music-Brass. (1 h)****MUS 120D. Chamber Music-Woodwind. (1 h)****MUS 120E. Chamber Music-Mixed. (1 h)****MUS 120F. Chamber Music-Clarinet. (1 h)****MUS 120G. Chamber Music-Saxophone. (1 h)****MUS 120H. Chamber Music-Guitar. (1 h)****MUS 120I. Chamber Music-Keyboards. (1 h)****MUS 121. Jazz Ensemble. (1 h)**

Study and performance of written and improvised jazz for big band and combo ensembles.

**MUS 122. Music Theatre Practicum. (1 h)**

For musicians who perform in a departmentally-sponsored theatrical production (when their performance is not as a member of a departmental ensemble). May not be counted toward the majors or minor in music. Credit may be earned in a given semester for either MUS 122 or THE 283, but not both. Course may be repeated for no more than four hours. Pass/Fail only. P-POI.

**MUS 123. Woodwind Doubling. (1 h)**

Practical skills for woodwind instrumentalists who participate in musical theatre productions for which expertise on more than one instrument is required.

**MUS 124. Small Ensemble. (1 h)**

Study and performance of conducted works for small ensemble. Performers are strongly urged to participate in a larger ensemble as well. P-POI.

**MUS 124A. Small Ensemble: Percussion Ensemble. (1 h)****MUS 124B. Small Ensemble: Flute Choir. (1 h)****MUS 124C. Small Ensemble: Clarinet Choir. (1 h)****MUS 124D. Small Ensemble: Saxophone Ensemble. (1 h)****MUS 124E. Small Ensemble: Brass Choir. (1 h)****MUS 124F. Small Ensemble: Vocal Ensemble. (1 h)****MUS 124G. Small Ensemble: Mixed Ensemble. (1 h)****MUS 125. Music and Public Engagement. (0.5 h)**

Opportunities for students taking performance study or ensemble to perform in the community, under the supervision of the instructor of the performance study or ensemble. Students attend a required training session and generate on-site performances. If performing for special-needs audiences, students attend an additional required training session. a journal, log, and 15 contact hours of training, travel, and on-site performances. Pass/Fail only. May be repeated. C-Any course listed under "Ensemble" or "Performance Study", and POI.

**MUS 126. Afro-Cuban Drumming. (1 h)**

Exploration of the music and history of West African drumming through hands-on experience. Students learn to play jembe, dunun, shekere, iron bell, and their New World descendants, the conga drum, bongo, claves, maracas, and agogo bells.

**MUS 127. Chinese Ensemble. (1 h)**

Performance of traditional and new Chinese music compositions. Experience on Chinese traditional instruments (dizi, erhu, guzheng, pipa, ruan, percussion, etc.) preferred, but instrumentalists and vocalists of all traditions welcome.

**MUS 128. Athletic Band I. (1 h)**

Performs at most football games, as well as men's and women's home basketball games. Meets twice weekly. Regular performances on and off campus. Offered in fall.

**MUS 129. Athletic Band II. (0.5 h)**

Performs at men's and women's home basketball games, and at the spring football game. Meets from the beginning of the semester to spring break. Offered in spring. P-MUS 128 or POI.

**MUS 131. World of Musical Instruments. (3 h)**

Historical survey of musical instruments by families. Instruments of Western art music, selected world cultures, and vernacular music of the United States, as well as electronic instruments. Emphasis on the cultural, sociological, and technological as well as the musical aspects of instruments. Meets concurrently with MUS 231. Credit cannot be received for both MUS 131 and 231. (D)

**MUS 132. Introduction to Beethoven. (3 h)**

Introduction to the life and works of Ludwig van Beethoven. May not count toward the majors or minor in music. Meets concurrently with MUS 232. (D)

**MUS 134. Music of Asia. (3 h)**

Survey of classical, vernacular, and popular musical traditions in selected Asian cultures, focusing on India, China, Japan, Korea, and Southeast Asia. The course will also examine the influence of Asian and Western philosophy and musical aesthetics on the development of the music, theater, and dance of Asia. Meets concurrently with MUS 234. Students may not receive credit for both MUS 134 and 234. (CD, D)

**MUS 140. Introduction to Modern Popular Music. (3 h)**

A survey of the history of popular music focusing on the United States from 1955-present that examines influential music genres and individual artists as well as situating their repertoires within sociocultural, political, economic, and technological contexts. May not count toward the major or minor in music. Meets concurrently with MUS 240. Credit cannot be received for both MUS 140 and 240. (CD, D)

**MUS 161. Individual Instruction. (0.5 h)**

Technical studies and repertoire of progressive difficulty selected to meet the needs and abilities of the student. One half-hour lesson per week. (See the fee section of this bulletin for specific information regarding additional costs.) Does not fulfill the individual instruction requirements for the major in music performance. May be repeated for credit. P-POI.

**MUS 161A. Individual Instruction: Violin. (0.5 h)**

**MUS 161AA. Individual Instruction: Carillon. (0.5 h)**

**MUS 161B. Individual Instruction: Viola. (0.5 h)**

**MUS 161C. Individual Instruction: Cello. (0.5 h)**

**MUS 161D. Individual Instruction: Bass. (0.5 h)**

**MUS 161E. Individual Instruction: Flute. (0.5 h)**

**MUS 161F. Individual Instruction: Oboe. (0.5 h)**

**MUS 161G. Individual Instruction: Clarinet. (0.5 h)**

**MUS 161H. Individual Instruction: Bassoon. (0.5 h)**

**MUS 161I. Individual Instruction: Saxophone. (0.5 h)**

**MUS 161J. Individual Instruction: Trumpet. (0.5 h)**

**MUS 161JI. Individual Instruction: Jazz Saxophone. (0.5 h)**

**MUS 161JJ. Individual Instruction: Jazz Trumpet. (0.5 h)**

**MUS 161JP. Individual Instruction: Jazz Piano. (0.5 h)**

**MUS 161JR. Individual Instruction: Jazz Guitar. (0.5 h)**

**MUS 161K. Individual Instruction: French Horn. (0.5 h)**

**MUS 161L. Individual Instruction: Trombone. (0.5 h)**

**MUS 161M. Individual Instruction: Baritone. (0.5 h)**

**MUS 161N. Individual Instruction: Tuba. (0.5 h)**

**MUS 161O. Individual Instruction: Organ. (0.5 h)**

**MUS 161P. Individual Instruction: Piano. (0.5 h)**

**MUS 161Q. Individual Instruction: Percussion. (0.5 h)**

**MUS 161R. Individual Instruction: Guitar. (0.5 h)**

**MUS 161S. Individual Instruction: Harp. (0.5 h)**

**MUS 161T. Individual Instruction: Electric Bass. (0.5 h)**

**MUS 161U. Individual Instruction: Accompanying. (0.5 h)**

**MUS 161V. Individual Instruction: Voice. (0.5 h)**

**MUS 161W. Individual Instruction: Recorder. (0.5 h)**

**MUS 161X. Individual Instruction: Viola da Gamba. (0.5 h)**

**MUS 161Y. Individual Instruction: Harpsichord. (0.5 h)**

**MUS 161Z. Individual Instruction: Jazz Improvisation. (0.5 h)**

**MUS 162. Individual Instruction. (1 h)**

One one-hour lesson per week. (See the fee section of this bulletin for specific information regarding additional costs.) Does not fulfill the individual instruction requirements for the major in music performance. May be repeated for credit. P-POI.



**MUS 162A. Individual Instruction: Violin. (1 h)**

**MUS 162AA. Individual Instruction: Carillon. (1 h)**

**MUS 162B. Individual Instruction: Viola. (1 h)**

**MUS 162C. Individual Instruction: Cello. (1 h)**

**MUS 162D. Individual Instruction: Bass. (1 h)**

**MUS 162E. Individual Instruction: Flute. (1 h)**

**MUS 162F. Individual Instruction: Oboe. (1 h)**

**MUS 162G. Individual Instruction: Clarinet. (1 h)**

**MUS 162H. Individual Instruction: Bassoon. (1 h)**

**MUS 162I. Individual Instruction: Saxophone. (1 h)**

**MUS 162J. Individual Instruction: Trumpet. (1 h)**

**MUS 162JI. Individual Instruction: Jazz Saxophone. (1 h)**

**MUS 162JJ. Individual Instruction: Jazz Trumpet. (1 h)**

**MUS 162JK. Indiv Instr - Jazz Trumpet. (1 h)**

**MUS 162JP. Individual Instruction: Jazz Piano. (1 h)**

**MUS 162JR. Individual Instruction: Jazz Guitar. (1 h)**

**MUS 162K. Individual Instruction: French Horn. (1 h)**

**MUS 162L. Individual Instruction: Trombone. (1 h)**

**MUS 162M. Individual Instruction: Baritone. (1 h)**

**MUS 162N. Individual Instruction: Tuba. (1 h)**

**MUS 162O. Individual Instruction: Organ. (1 h)**

**MUS 162P. Individual Instruction: Piano. (1 h)**

**MUS 162Q. Individual Instruction: Percussion. (1 h)**

**MUS 162R. Individual Instruction: Guitar. (1 h)**

**MUS 162S. Individual Instruction: Harp. (1 h)**

**MUS 162T. Individual Instruction: Electric Bass. (1 h)**

**MUS 162U. Individual Instruction: Accompanying. (1 h)**

**MUS 162V. Individual Instruction: Voice. (1 h)**

**MUS 162W. Individual Instruction: Recorder. (1 h)**

**MUS 162X. Individual Instruction: Viola da Gamba. (1 h)**

**MUS 162Y. Individual Instruction: Harpsichord. (1 h)**

**MUS 162Z. Individual Instruction: Jazz Improvisation. (1 h)**

**MUS 165J. Brass Rudiments. (0.5 h)**

Introduction to the fundamentals of playing brass instruments. Designed for students with musical experience as well as beginners with no prior musical training. Offered in spring. P-POI.

**MUS 165Q. Class Percussion. (0.5 h)**

Introduction to the fundamentals of playing percussion instruments. Includes an introduction to reading music as well as basic techniques on instruments of the percussion family. P-POI.

**MUS 165R. Class Guitar I. (0.5 h)**

For beginner students. Introduction to finger style guitar techniques: strumming, plucking, arpeggios, and damping. Reading and playing from musical notation. Nylon string guitar is required.

**MUS 165V. Class Voice I. (0.5 h)**

Introduction to the fundamental principles of singing, concepts of breath control, tone, and resonance. P-POI.

**MUS 166R. Class Guitar II. (0.5 h)**

Continuation of finger style guitar techniques with emphasis on chordal progressions, scales, accompanying patterns, and sight-reading. Nylon string guitar required. P-MUS 165R.

**MUS 166V. Class Voice II. (0.5 h)**

Continuation of fundamental vocal techniques. P-MUS 165V or POI.

**MUS 167V. Theatrical Singing I: Class Voice. (0.5 h)**

Basic techniques of singing, breath control, phonation, and resonance, with emphasis on theatrical projection. Study and performance of musical theater repertoire. One hour per week. P-POI.

**MUS 168V. Theatrical Singing II: Class Voice. (0.5 h)**

Continuation of theatrical singing techniques with increased study and performance of musical theater repertoire. One hour per week. P-MUS 167V or POI.

**MUS 171. Music Theory I. (4 h)**

Music fundamentals (key signatures, scales, modes, intervals, chords), simple part-writing, sight-singing, dictation and keyboard harmony. Prerequisite for the audition in music performance. Designed for music majors and minors. Offered in fall. (D)

**MUS 172. Music Theory II. (4 h)**

Seventh chords, secondary chords, altered chords, part-writing, basic counterpoint, basic musical forms, sight-singing, dictation and keyboard harmony. Offered in spring. P-MUS 171.

**MUS 173. Music Theory III. (4 h)**

Altered chords, continuation of part-writing, 18th- and 19th-century forms, ear training, sight-singing, dictation, rhythmic skills, and keyboard harmony. Offered in fall. P-MUS 172.

**MUS 174. Music Theory IV. (4 h)**

Expanded harmony and techniques from Impressionism to the present. New concepts of style and form. Ear training, sight-singing, dictation, rhythmic skills, and keyboard harmony. Offered in spring. P-MUS 173.

**MUS 175V. Advanced Voice Class. (1 h)**

Development of advanced vocal technique and repertoire. Limited to eight students. Two hours per week; may be repeated. P-MUS 166V or POI.

**MUS 177V. Advanced Theatrical Singing. (1 h)**

Development of advanced theatrical singing technique and performance of musical theater repertoire. Limited to eight students. Two hours per week; may be repeated. P-MUS 168V or POI.

**MUS 178. Class Piano I. (1 h)**

Class piano for beginners. Pentascales in all keys, all major and minor chords, arpeggios, improvisation, technique, introduction to music notation through playing pieces in various styles appropriate to the beginning level.

**MUS 179. Class Piano II. (1 h)**

Continuation of foundational principles. Early intermediate repertoire, scales hands together, principles of fingering, musical approach to learning, chords, arpeggios and ensemble duets. P-MUS 178 or POI.

**MUS 181. Music History I. (3 h)**

History of western art music from the ancient Greeks to 1750. It is recommended that students take MUS 171 before enrolling in MUS 181. Reading knowledge of music is essential. Offered in fall. P-MUS 171 or POI. (D)

**MUS 182. Music History II. (3 h)**

History of western art music from 1750 to World War I. It is recommended that students take MUS 171 before enrolling in MUS 182. Reading knowledge of music is essential. Offered in spring. P-MUS 171 or POI. (D)



**MUS 183. Music History III. (3 h)**

History of western art music from the beginning of the 20th century to the present day and its associations with other cultures and disciplines. Reading knowledge of music is essential. Offered in fall. P-MUS 171 or POI. (D)

**MUS 190. Diction for Singers. (1.5 h)**

Study of articulation in singing, with emphasis on modification of English; pronunciation of Italian, German, and French. Development of articulatory and aural skills with use of the international phonetic alphabet. Individual performance and coaching in class. (Two hours per week.) May not be repeated for credit.

**MUS 203. Jazz. (3 h)**

Survey of American jazz from its origin to the present. P- POI. (CD, D)

**MUS 205. History of American Music Theatre. (3 h)**

Survey of the American musical from its origins to the present. P-POI. (CD, D)

**MUS 207. American Music. (3 h)**

A study of the musical sources of American culture and the six streams of music in the United States: folk and ethnic musics, offsprings of the rural South (country music, blues, rock), jazz and its forerunners, popular sacred music, popular secular music, and art music. (CD, D)

**MUS 208. Women and Music. (3 h)**

Historical overview of women musicians in society. (CD, D)

**MUS 209. Music of World Cultures. (3 h)**

Survey of music in selected societies around the world. Topics will be selected from the following areas of concentration: India, East Asia, sub-Saharan Africa, Western Europe, Latin America, and vernacular music of the United States (including jazz). Students complete a project or projects on the technical or theoretical aspects of the music of world cultures. Designed for music majors and minors in cultural resource preservation. Meets concurrently with MUS 109. Credit cannot be received for both MUS 109 and 209. P-MUS 172 or POI. (CD, D)

**MUS 210. Survey of Latin American Music. (3 h)**

A survey of art, folk, and popular musical styles in Latin America and their impact on music of other cultures. Divided into three areas of study: the Caribbean, Central America, and South America. (CD, D)

**MUS 212. Music in the Church. (3 h)**

Function of church musicians and the relationship of their work to the church program. Offers to musician and non-musician alike historical overview, hymnody survey and other church music-related topics through class and guest lectures and practical seminars. P-POI.

**MUS 214. Music of Italy. (3 h)**

Study of art music composed in Italy, with special emphasis on composers associated with Venice. Offered only at Casa Artom in Venice. (D)

**MUS 215. Philosophy of Music. (3 h)**

A survey of philosophical writings about music. Musical aesthetics; social, religious, and political concerns.

**MUS 219. Music in Vienna. (3 h)**

Study of the music and musical institutions of Vienna and Central Europe. Taught in English. Offered only at the Flow House in Vienna. (D)

**MUS 220. Seminar in Music History. (3 h)**

Intensive study of a selected topic in music history. P-MUS 174, 181, 182, 183, or POI. (D)

**MUS 231. World of Musical Instruments. (3 h)**

Historical survey of musical instruments by families. Instruments of Western art music, selected world cultures, and vernacular music of the United States, as well as electronic instruments. Students complete a project or projects on the technical or theoretical aspects of instruments. Designed for music majors and minors. Meets concurrently with MUS 131. Credit cannot be received for both MUS 131 and 231. P-MUS 171 or POI. (D)

**MUS 232. Beethoven. (3 h)**

The life and works of Ludwig van Beethoven. Students complete a project or projects on the technical or theoretical aspects of Beethoven's music. Meets concurrently with MUS 132. Credit cannot be received for both MUS 132 and 232. P-POI. (D)

**MUS 234. Music of Asia. (3 h)**

Survey of classical, vernacular, and popular musical traditions in selected Asian cultures, focusing on India, China, Japan, Korea, and Southeast Asia. The course will also examine the influence of Asian and Western philosophy and musical aesthetics on the development of the music, theater, and dance of Asia. Students will complete a project or projects on the technical or theoretical aspects of music of Asia. Designed for music majors and minors. Meets concurrently with MUS 134. Students may not received credit for both MUS 134 and 234. (CD, D)

**MUS 240. Modern Popular Music. (3 h)**

A survey of the history of popular music focusing on the United States from 1955-present that examines influential music genres and individual artists as well as situating their repertoires within sociocultural, political, economic, and technological contexts. Students complete a final project on an aspect of popular music. Designed for music majors and minors. Meets concurrently with MUS 140. Credit cannot be received for both MUS 140 and 240. P - MUS 172 or POI. (CD, D)

**MUS 262. Individual Instruction. (1.5 h)**

One one-hour lesson per week. (See the fee section of this bulletin for specific information regarding additional costs) Fulfills the individual instruction requirements for the major in music performance. May be repeated for credit. P - 2 hours of MUS 161 and/or MUS 162, plus successful completion of the audition for the major in musical performance, and POI.

**MUS 262A. Individual Instruction: Violin. (1.5 h)****MUS 262B. Individual Instruction: Viola. (1.5 h)****MUS 262C. Individual Instruction: Cello. (1.5 h)****MUS 262D. Individual Instruction: Bass. (1.5 h)****MUS 262E. Individual Instruction: Flute. (1.5 h)****MUS 262F. Individual Instruction: Oboe. (1.5 h)****MUS 262G. Individual Instruction: Clarinet. (1.5 h)****MUS 262H. Individual Instruction: Bassoon. (1.5 h)****MUS 262I. Individual Instruction: Saxophone. (1.5 h)****MUS 262J. Individual Instruction: Trumpet. (1.5 h)****MUS 262K. Individual Instruction: French Horn. (1.5 h)****MUS 262L. Individual Instruction: Trombone. (1.5 h)****MUS 262M. Individual Instruction: Baritone. (1.5 h)****MUS 262N. Individual Instruction: Tuba. (1.5 h)****MUS 262O. Individual Instruction: Organ. (1.5 h)****MUS 262P. Individual Instruction: Piano. (1.5 h)****MUS 262Q. Individual Instruction: Percussion. (1.5 h)****MUS 262R. Individual Instruction: Guitar. (1.5 h)****MUS 262S. Individual Instruction: Harp. (1.5 h)****MUS 262T. Individual Instruction: Electric Bass. (1.5 h)****MUS 262U. Individual Instruction: Accompanying. (1.5 h)****MUS 262V. Individual Instruction: Voice. (1.5 h)****MUS 262W. Individual Instruction: Recorder. (1.5 h)****MUS 262X. Individual Instruction: Viola da Gamba. (1.5 h)****MUS 262Y. Individual Instruction: Harpsichord. (1.5 h)****MUS 262Z. Individual Instruction: Jazz Improvisation. (1.5 h)****MUS 272. Performance and Analysis. (1.5 h)**

Individual instruction in practical music analysis for research and performance preparation. P-MUS 172 or POI.

**MUS 273. Composition. (1-1.5 h)**

Individual instruction in the craft of musical composition. May be repeated for credit. P - MUS 172 or POI.

**MUS 279. Internship in Music. (1-3 h)**

A supervised learning experience in music, in a work environment, for academic credit. No more than 3 hours may be counted toward a music major or minor. For further information, consult the Music Student Handbook. P-Declaration of a music major or minor, minimum Wake Forest GPA of 2.75, permission of faculty internship director. Pass/Fail only.

**MUS 280. Orchestration. (3 h)**

Study of the orchestral and wind band instruments, how composers have used them throughout history, and the development of practical scoring and manuscript skills. Offered in spring. P-MUS 174, MUS 182, and MUS 183 or POI.

**MUS 282. Conducting. (3 h)**

A study of choral and instrumental conducting techniques. P-MUS 172 or POI.

**MUS 283. Roots of Song. (3 h)**

Interdisciplinary investigation of poetry and song in the Middle Ages and early Renaissance. Study of the evolution of poetic and musical genres and styles, both sacred and secular. Students must complete a project or projects on the technical or theoretical aspects of early song. Students may not receive credit for both MUS 283 and ENG 313.

**MUS 284. Music Literature Seminar. (3 h)**

Survey of repertoire, including an examination of teaching materials in the student's special area of interest. (D)

**MUS 284A. Music Literature Seminar: Orchestral Literature. (3 h)****MUS 284B. Music Literature Seminar: Choral Literature. (3 h)****MUS 284C. Music Literature Seminar: Piano Literature. (3 h)****MUS 284D. Music Literature Seminar: Guitar Literature. (3 h)****MUS 284E. Music Literature Seminar: Vocal Literature. (3 h)****MUS 284F. Music Literature Seminar: Opera. (3 h)****MUS 285. Special Topics in Music. (1-3 h)**

An intensive study of a selected subject chosen by faculty prior to the term in which the course is offered. May be repeated if course content differs. P-POI.

**MUS 298. Independent Study. (1-3 h)**

Project in an area of study not otherwise available in the department. By pre-arrangement with department chair. P-Minimum Wake Forest GPA of 2.75.

**MUS 362. Senior Recital. (3 h)**

Preparation and public performance of a recital. (See the fee section of this bulletin for specific information regarding additional costs.) Fulfills the individual instruction requirements for the major in music performance. To be taken only during the senior year. A student may not receive credit for both MUS 362 and 363. A student may not enroll in MUS 262 and 362 in the same semester. May not be repeated for credit. P-Two semesters of MUS 262 and POI.

**MUS 363. Senior Honors Recital. (3 h)**

Preparation and public performance of a recital at the honors level. (See the fee section of this bulletin for specific information regarding additional costs.) Fulfills the individual instruction requirements for the major in music performance. To be taken only during the senior year. A student may not receive credit for both MUS 362 and 363. A student may not enroll in MUS 262 and 363 in the same semester. May not be repeated for credit. P-Faculty selection for honors in music.

**MUS 396. Senior Project Preparation. (1 h)**

Research, outlining, and other work preliminary to the completion of the written document in MUS 397 or 398. Optional for the music in liberal arts major. May not be taken concurrently with or after MUS 397 or 398. By prearrangement.

**MUS 397. Senior Project. (3 h)**

Writing and public presentation of a major composition, research paper, music analysis or conducting endeavor, according to criteria on file in the department. A student may not receive credit for both MUS 397 and 398. By prearrangement.

**MUS 398. Senior Honors Project. (3 h)**

Writing and public presentation of a major composition, research paper, music analysis, or conducting endeavor, according to criteria on file in the department. A student may not receive credit for both MUS 397 and 398. P-Faculty selection for Honors in Music.

Faculty

**Chair** Peter Kairoff  
**Associate Chair** Jacqui Carrasco  
**Professors** Jacqui Carrasco, Stewart Carter, Peter Kairoff  
**Composer-in-Residence and Professor** Dan Locklair  
**Assistant Professor** Bryon Grohman, David Geary, Larry Weng  
**Director of Choral Ensembles and Assistant Professor** Christopher Gilliam  
**Associate Professor** Elizabeth Clendinning  
**Director of Bands** C. Kevin Bowen  
**Assistant Teaching Professor and Director of Athletic Bands** Timothy Heath  
**Director of Orchestra** David Hagy  
**Professor of the Practice** Kathryn Levy  
**Associate Teaching Professor** Joanne Inkman  
**Assistant Teaching Professor** Marco Sartor  
**Assistant Professor of the Practice** John Sadak

Music in Liberal Arts, B.A.  
Requirements

The Department of Music offers two majors, one in music performance, requiring 41 hours, and a second in music in liberal arts, also requiring 41 hours. Students who choose one of these majors may not choose the other as a second major. Both majors include a basic curriculum of:

Code	Title	Hours
Music Theory		
MUS 171	Music Theory I	4
MUS 172	Music Theory II	4
MUS 173	Music Theory III	4
MUS 174	Music Theory IV	4
Music History		
MUS 181	Music History I	3
MUS 182	Music History II	3
MUS 183	Music History III	3
Select one of the the following courses outside the Western Classical Tradition:		3
MUS 203	Jazz	
MUS 205	History of American Music Theatre	
MUS 207	American Music	
MUS 209	Music of World Cultures	
MUS 210	Survey of Latin American Music	
MUS 234	Music of Asia	
MUS 285	Special Topics in Music (when the topic is appropriate)	
MUS 100	Music Recitals (four semesters )	0

Students in both majors are encouraged to consider PHY 115 for one of their Division V requirements.

In addition to the basic curriculum, the major in music in liberal arts requires:

Code	Title	Hours
MUS 161	Individual Instruction	4
or MUS 162	Individual Instruction	
Ensembles *		3

Elective Courses in Music **		7
Performance Proficiency Examination		
MUS 397	Senior Project ***	3
or MUS 398	Senior Honors Project	

- \* Excluding MUS 128 and MUS 129, and taken in three semesters.
- \*\* Excluding ensembles and MUS 101, MUS 104, MUS 109, MUS 131, MUS 161-MUS 162, MUS 165V-MUS 168V, MUS 175V, MUS 177V, MUS 262.
- \*\*\* To undertake the senior project, a student must have a grade point average of 2.0 in courses in the major.

Regarding ensemble requirements for the majors and minor in music, students who are singers must fulfill the ensemble requirement by enrolling in MUS 114, MUS 115 and/or MUS 116. Students who play a band or orchestral instrument must fulfill the ensemble requirement by performing on their primary instrument in MUS 112, MUS 113, MUS 118, and/or MUS 121. Performers on keyboard instruments are strongly encouraged to enroll in one of the above ensembles, but may also fulfill the ensemble requirement through participation in chamber music (MUS 120A-MUS 120I).

Honors

Highly qualified majors in music performance or music in liberal arts may be invited by the music faculty to apply for admission to honors in music. To be graduated with the designation “Honors in Music,” a candidate must have an overall grade point average of at least 3.0, and a grade point average of at least 3.5 in courses in the major, be selected for this honor by the music faculty, and successfully complete either MUS 363 or MUS 398. More information is available from the music department.

Music Performance, B.A.  
Requirements

The Department of Music offers two majors, one in music performance, requiring 41 hours, and a second in music in liberal arts, also requiring 41 hours. Students who choose one of these majors may not choose the other as a second major. Both majors include a basic curriculum of:

Code	Title	Hours
Music Theory		
MUS 171	Music Theory I	4
MUS 172	Music Theory II	4
MUS 173	Music Theory III	4
MUS 174	Music Theory IV	4
Music History		
MUS 181	Music History I	3
MUS 182	Music History II	3
MUS 183	Music History III	3
Select one of the the following courses outside the Western Classical Tradition:		3
MUS 203	Jazz	
MUS 205	History of American Music Theatre	
MUS 207	American Music	
MUS 209	Music of World Cultures	
MUS 210	Survey of Latin American Music	
MUS 234	Music of Asia	

MUS 285	Special Topics in Music (when the topic is appropriate)	
MUS 100	Music Recitals (four semesters )	0

Students in both majors are encouraged to consider PHY 115 for one of their Division V requirements.

To be admitted to the major in music performance, a student must first successfully complete MUS 171 and then pass an audition before the entire music faculty. The audition should be completed during the sophomore year in order to fulfill during the third and fourth years the number of hours above the 100 level required of the performance major. Students who audition are required to

1. demonstrate technical skill when appropriate to the instrument
2. perform standard repertoire
3. sight-read

All of the required areas must be deemed strong enough by a majority vote of the faculty for the student to be accepted as a major in music performance. In addition to the basic curriculum, the major in music performance requires:

Code	Title	Hours
MUS 262	Individual Instruction *	3
MUS 362	Senior Recital *	3
or MUS 363	Senior Honors Recital	
Ensembles **		4
Electives in Music ***		3
Senior Recital ****		

\* Individual instruction above the 100 level, which require as a prerequisite the successful completion of an audition.

\*\* Excluding MUS 119, MUS 128, and MUS 129, and taken in four semesters.

\*\*\* Excluding ensembles and MUS 101, MUS 104, MUS 109, MUS 131, MUS 161-MUS 162, MUS 165V-MUS 168V, MUS 175V, MUS 177V, MUS 262.

\*\*\*\* To undertake the senior recital, a student must have a grade point average of 2.0 in courses in the major.

Students considering a major in music performance or music in liberal arts are urged to begin their musical studies during the first year and should consult the chair of the department as soon as possible after entering the University. Highly motivated students who would like to further expand or apply their study beyond the normal course offerings may undertake internships or independent study, if they fulfill the minimum overall GPA of 2.75.

Regarding ensemble requirements for the majors and minor in music, students who are singers must fulfill the ensemble requirement by enrolling in MUS 114, MUS 115 and/or MUS 116. Students who play a band or orchestral instrument must fulfill the ensemble requirement by performing on their primary instrument in MUS 112, MUS 113, MUS 118, and/or MUS 121. Performers on keyboard instruments are strongly encouraged to enroll in one of the above ensembles, but may also fulfill the ensemble requirement through participation in chamber music (MUS 120A-MUS 120I).

## Honors

Highly qualified majors in music performance or music in liberal arts may be invited by the music faculty to apply for admission to honors in music.

To be graduated with the designation "Honors in Music," a candidate must have an overall grade point average of at least 3.0, and a grade point average of at least 3.5 in courses in the major, be selected for this honor by the music faculty, and successfully complete either MUS 363 or MUS 398. More information is available from the music department.

## Music, Minor Requirements

Requires 19 hours:

Code	Title	Hours
MUS 171	Music Theory I	4
MUS 172	Music Theory II	4
Select one of the following:		3
MUS 181	Music History I	
MUS 182	Music History II	
MUS 183	Music History III	
Ensemble *		2
Individual Instruction		2
MUS 100	Music Recitals (three semesters)	0
Music Electives **		4

\* Excluding MUS 128, MUS 129, and taken in two semesters.

\*\* Three of which must be in music in liberal arts, excluding MUS 100, MUS 101, MUS 104, and MUS 109.

Each minor is assigned an adviser in the music department and is encouraged to begin individual lessons, MUS 171, and MUS 100 as early as possible.

Regarding ensemble requirements for the majors and minor in music, students who are singers must fulfill the ensemble requirement by enrolling in MUS 114, MUS 115 and/or MUS 116. Students who play a band or orchestral instrument must fulfill the ensemble requirement by performing on their primary instrument in MUS 112, MUS 113, MUS 118, and/or MUS 121. Performers on keyboard instruments are strongly encouraged to enroll in one of the above ensembles, but may also fulfill the ensemble requirement through participation in chamber music (MUS 120A-MUS 120I).

## Neuroscience (NEU)

### Interdisciplinary Minor

The neuroscience minor provides an interdisciplinary approach to the study of the nervous system. Neuroscientists study how we learn, process and remember information from the molecular to the philosophical level, and examine subjects ranging from the molecular pharmacology of brain function to the mind-body problem.

Neuroscience offers a five-year dual degree program jointly sponsored by the Wake Forest University College of Arts and Sciences and the Graduate School of Arts and Science. Wake Forest University undergraduates pursuing a B.S. or B.A. degree in Wake Forest College of Arts and Sciences with a minor in Neuroscience have the opportunity to earn a research-oriented M.S. degree with concentration in Neuroscience with one additional year of study. Interested students can get more information here (<http://neuroscience.wfu.edu/5-year-neuroscience-masters-program/>).

## Contact Information

Neuroscience (<http://neuroscience.wfu.edu/>)

## Programs

### Minor

- Neuroscience, Minor

## Courses

### Neuroscience (NEU)

#### NEU 200. Introduction to Neuroscience. (3 h)

An interdisciplinary course taught by faculty representing several fields. Topics include neurophysiology, sensory biology, motor mechanisms, psychopharmacology, cognitive neuroscience, perception, and developmental neuroscience. P-BIO 150 or PSY 151 and sophomore standing. Fall only.

#### NEU 201. Neuroscience Laboratory. (1 h)

Examines principles of neuroscience ranging from the molecular and cellular to the behavioral and cognitive. Lab-3 hours. C-NEU 200. Fall only.

#### NEU 300. Neuroscience Seminars. (3 h)

Consideration of current neuroscience topics. Presentations of current research by faculty on the Reynolda Campus or the Wake Forest University School of Medicine. Readings from the primary literature will accompany the presentations. P-NEU 200 or POI. Spring only.

#### NEU 301. Topics in Neuroscience. (1-4 h)

Seminar and/or lecture courses in selected topics, some involving laboratory instruction. May be repeated if the course title differs.

#### NEU 302. Topics in Neuroscience. (1-4 h)

Seminar and/or lecture courses in selected topics, some involving laboratory instruction. May be repeated if the course title differs.

#### NEU 303. Topics in Neuroscience. (1-4 h)

Seminar and/or lecture courses in selected topics, some involving laboratory instruction. May be repeated if the course title differs.

#### NEU 304. Topics in Neuroscience. (1-4 h)

Seminar and/or lecture courses in selected topics, some involving laboratory instruction. May be repeated if the course title differs.

#### NEU 391. Research in Neuroscience. (2 h)

Supervised independent laboratory investigation in neuroscience. P-POI.

#### NEU 392. Research in Neuroscience. (2 h)

Continued supervised independent laboratory investigation in Neuroscience. Not to be counted toward the minor. P-NEU 391 and POI.

#### NEU 393. Research in Neuroscience. (2 h)

Continued supervised independent laboratory investigation in Neuroscience. Not to be counted toward the minor. P-NEU 392 and POI.

#### NEU 394. Research in Neuroscience. (2 h)

Continued supervised independent laboratory investigation in Neuroscience. Not to be counted toward the minor. P-NEU 393 and POI.

## Faculty

**Co-Coordinator, Professor of Biology** Wayne L. Silver

**Co-Coordinator, Associate Teaching Professor of Biology and Neuroscience** Katy Lack

## Neuroscience, Minor

### Requirements

The minor requires a minimum of 17 hours:

Code	Title	Hours
NEU 200	Introduction to Neuroscience	3
NEU 201	Neuroscience Laboratory	1
NEU 300	Neuroscience Seminars	3
NEU 391	Research in Neuroscience *	2
Electives **		8

\* *At least one semester of research in neuroscience is required for the minor (NEU 391). The research can be conducted on the Reynolda Campus or with investigators at the Wake Forest University School of Medicine. The research project must be approved by a member of the neuroscience minor faculty.*

\*\* *One of the elective courses must come from outside the student's major department.*

Additional elective courses may have been approved since publication of this bulletin. The program coordinator maintains a complete list of all approved elective courses. For course descriptions, see the relevant department's listings in this publication.

### Electives for Neuroscience

Code	Title	Hours
BIO 323 & 323L	Animal Behavior and Animal Behavior Lab	4
BIO 324	Hormones and Behavior	3
BIO 346 & 346L	Neurobiology and Neurobiology Lab	4
BIO 352	Developmental Neuroscience	4
BIO 353	Functional Neuroanatomy	3
BIO 363 & 363L	Sensory Biology and Sensory Biology Lab	4
BIO 374	Neuropharmacology	3
EDU 311	Learning and Cognitive Science	3
HES 312	Exercise and Health Psychology	3
HES 350	Human Physiology	3
LIN 330	Introduction to Psycholinguistics and Language Acquisition	3
NEU 301	Topics in Neuroscience	1-4
NEU 302	Topics in Neuroscience	1-4
NEU 303	Topics in Neuroscience	1-4
NEU 304	Topics in Neuroscience	1-4
PHI 374	Philosophy of Mind	3
PSY 243	Biopsychology	3
PSY 248	Cognitive Psychology	3
PSY 320	Physiological Psychology	3
PSY 322	Psychopharmacology	3
PSY 323	Animal Behavior	3
PSY 326	Learning Theory and Research	3
PSY 329	Perception	3
PSY 331	Research in Cognitive Psychology	3



PSY 333	Motivation of Behavior	3
PSY 338	Emotion	3
PSY 348	Clinical Neuroscience	3

Note that many of these courses have prerequisites, in some cases including introductory biology, psychology, or chemistry.

## Philosophy (PHI)

Philosophy examines such topics as consciousness, knowledge, justice, free will, good and evil, and the nature of religious experience and belief. Engagement with the central questions of philosophy is valuable in itself; it is also valuable as a means of developing analytical, critical, and imaginative skills useful in the study of most other subjects, in the pursuit of careers as varied as law, business, medicine, science, education, and the arts, and in effective participation in civic life. A liberal arts education should introduce students to rigorous thinking and writing about philosophical issues and to the reading of great philosophical texts. We help to realize this goal through the courses we offer, through one-on-one discussion with students, and by presenting lectures, colloquia, and debates open to the University and the public.

Any 3-hour philosophy course numbered PHI 220 or lower counts towards satisfying the Division I requirement. Courses taken elsewhere after a student has enrolled at Wake Forest University will not count towards satisfying the Division I requirement in philosophy.

## Contact Information

D (<http://college.wfu.edu/philosophy/>) department of Philosophy (<http://college.wfu.edu/philosophy/>)  
Tribble Hall B301, Box 7332  
Phone 336-758-5359

## Programs

### Major

- Philosophy, B.A.

### Minor

- Philosophy, Minor

## Courses

### Philosophy (PHI)

#### PHI 111. Problems of Philosophy. (3 h)

Examines the basic concepts of several representative philosophers, including their accounts of the nature of knowledge, persons, God, mind, and matter. (D)

#### PHI 112. Introduction to Philosophical Ideas. (3 h)

How and why does philosophy engage religious belief and common sense? Why is the purposive world of pre-modern life abandoned by modern naturalism, skepticism, and existentialism? How are our contemporary ideas of self and world expressions of these opposing conceptions of life, love, and meaning? (D)

#### PHI 113. Knowledge and Reality. (3 h)

Examination of three interconnected philosophic problems: the nature of existence; the distinction between truth and falsity; and the question of what it means to know. (D)

#### PHI 114. Philosophy of Human Nature. (3 h)

A study of selected topics bearing on human nature, such as free will and determinism, the relation of mind and body, personal identity and personhood, and immortality. (D)

#### PHI 115. Introduction to Philosophy of Religion. (3 h)

A study of some central issues in the philosophy of religion, such as arguments for and against the existence of God; faith and reason; the divine attributes; the nature and existence of the soul; the possibility of immortality; and religious diversity. (D)

#### PHI 116. Meaning and Happiness. (3 h)

Beginning with Plato (c. 400 BCE) and ending with Foucault (died 1984) the course will look at the views of Western philosophers who have discussed how to live a happy, meaningful life, with particular attention paid to 'post-death-of-God' philosophers. (e.g., Schopenhauer, Nietzsche, Marx, Sartre, Camus, Heidegger). (D)

#### PHI 160. Introduction to Political Philosophy. (3 h)

Examines basic concepts and problems in political thought, including social and economic issues, individual rights, equality, justice, and the common good. (D)

#### PHI 161. Introduction to Bioethics. (3 h)

A study of ethical issues that arise in health care and the life sciences such as informed consent, experimentation on human subjects, truth-telling, confidentiality, abortion, and the allocation of scarce medical resources. (D)

#### PHI 163. Environmental Ethics. (3 h)

An examination of ethical issues concerning the environment as they arise in individual lives and public policy. (D)

#### PHI 164. Contemporary Moral Problems. (3 h)

A study of pressing ethical issues in contemporary life, such as abortion, euthanasia, animal rights, affirmative action, marriage, cloning, pornography, and capital punishment. (D)

#### PHI 165. Introduction to Philosophy of Law. (3 h)

An examination of prominent legal cases and their underlying principles, with an emphasis on philosophical analysis and moral evaluation. Topics include the rule of law, constitutional interpretation, judicial review, legal enforcement of morality, punishment, and freedom of speech and of religion. (D)

#### PHI 220. Logic. (3 h)

Elementary study of the laws of valid inference, recognition of fallacies, and logical analysis. (D)

#### PHI 221. Symbolic Logic. (3 h)

Introduces propositional and predicate logic, including identity and functions. Construction of proofs. Use of models to demonstrate consistency and invalidity. Application of these techniques to the assessment of arguments expressed in ordinary language.

#### PHI 232. Ancient Greek Philosophy. (3 h)

A study of the central figures in early Greek philosophy, beginning with the Presocratics, focusing primarily on Plato and Aristotle, and concluding with a brief survey of some Hellenistic philosophers. P - One PHI course or POI.

#### PHI 235. Main Streams of Chinese Philosophy. (3 h)

Survey of the main streams of Chinese philosophical thought from their ancient beginnings to their development and influence on one another in later eras.

**PHI 237. Medieval Philosophy. (3 h)**

A survey of some major philosophers from Augustine to Suarez, including Anselm, Averroes, Maimonides, Avicenna, Aquinas, Scotus and Ockham. P-One PHI course or POI.

**PHI 241. Modern Philosophy. (3 h)**

A study of the works of influential 17th and 18th century European philosophers such as Descartes, Locke, Leibniz, Berkeley, and Hume, with a concentration on theories of knowledge and metaphysics. P-One PHI course or POI.

**PHI 280. Topics in Philosophy. (1-3 h)**

Seminar and/or lecture course in selected topics. May be repeated if course title differs. P—One PHI course or POI.

**PHI 331. Plato. (3 h)**

Detailed analysis of selected dialogues, covering Plato's most important contributions to moral and political philosophy, theory of knowledge, metaphysics, and theology. P-One PHI course or POI.

**PHI 332. Aristotle. (3 h)**

Study of the major texts, with emphasis on metaphysics, ethics, and theory of knowledge. P-One PHI course (232 or 331 strongly recommended) or POI.

**PHI 333. Hellenistic Philosophy. (3 h)**

Study of the Ancient Greek and Roman philosophical schools of the Hellenistic Period, focusing on the Stoics, Skeptics, and Epicureans. P-One PHI course or POI.

**PHI 337. Thomas Aquinas. (3 h)**

Study of some major texts, with a focus on metaphysics and philosophical theology. P—One PHI course (232 strongly recommended) or POI.

**PHI 341. Kant: Theoretical Philosophy. (3 h)**

A study of Kant's principal contributions to metaphysics and the theory of knowledge. P-One PHI course (241 strongly recommended) or POI.

**PHI 342. Topics in Modern Philosophy. (3 h)**

Treatment of selected figures and/or themes in 17th and 18th century European philosophy. P-One PHI course (241 strongly recommended) or POI.

**PHI 343. Kant: Practical Philosophy. (3 h)**

Study of Kant's principal contributions to theory of action, theory of value, and moral and political philosophy. PHI 341 is not a prerequisite for this course. P-One PHI course or POI.

**PHI 352. 19th-Century European Philosophy: Hegel, Kierkegaard, Nietzsche. (3 h)**

Is there a way to think about the natural world that also makes sense of human life and history? Is anything gained, or lost, by thinking holistically about the world as a whole? Is a life dedicated to thinking about the world (and living accordingly) a way of avoiding authentic human life? What does it mean to live authentically? Does nihilism provide the answer or is it a form of avoidance? P – One PHI course or POI.

**PHI 353. Heidegger. (3 h)**

Heidegger early and late. Early Heidegger: the contrast between conformism and authenticity achieved through 'being-towards-death'; meaning through communal tradition. Late Heidegger: critique of modernity's reduction of everything to 'resource'; the ethics of 'dwelling' as our proper way of being in the world. P—One PHI course or POI.

**PHI 354. Wittgenstein. (3 h)**

A study of the work of Ludwig Wittgenstein on such topics as the picture theory of meaning, truth, skepticism, private languages, thinking, feeling, the mystical, and the ethical. P-One PHI course (221 strongly recommended) or POI.

**PHI 355. Contemporary Philosophy. (3 h)**

Study of the principal works of several representative 20th century philosophers. P-One PHI course (221 strongly recommended) or POI.

**PHI 356. Twentieth-Century European Philosophy. (3 h)**

Representative Issues: the 'disenchantment' and 'rationalization' of modernity, the character of modern technology, the possibility of mutual understanding in a multicultural world, the nature of 'dwelling'. Representative figures: Weber, Husserl, Korkheimer, Adorno, Marcuse, Heidegger, Gadamer, Arendt, Habermas. P-One PHI course of POI.

**PHI 360. Ethics. (3 h)**

Systematic examination of central ethical theories in the Western philosophical tradition. Such theories include Kantian deontology, utilitarianism, Aristotelian virtue ethics, and divine command theory. P-One PHI course or POI.

**PHI 361. Topics in Ethics. (3 h)**

One PHI course or POI.

**PHI 362. Social and Political Philosophy. (3 h)**

A systematic examination of the work of selected contemporary and traditional philosophers on topics such as the state, the family, distributive justice, property, liberty, and the common good. P-One PHI course or POI.

**PHI 363. Philosophy of Law. (3 h)**

Inquiry into the nature of law and its relation to morality. Classroom discussions of readings from the works of classical and modern authors focus on issues of contemporary concern involving questions of legal principle, personal liberty, human rights, responsibility, justice, and punishment. P-One PHI course or POI.

**PHI 364. Freedom, Action, and Responsibility. (3 h)**

Study of the nature of human freedom and related matters in the philosophy of action, metaphysics, and moral philosophy. P-One PHI course or POI.

**PHI 365. Philosophy of Love and Friendship. (3 h)**

Study of the historical and contemporary philosophical investigations of love and friendship. P - One PHI course or POI.

**PHI 366. Global Justice. (3 h)**

Does justice transcend national boundaries? Topics include citizenship, national sovereignty, war, human rights, humanitarian concerns, distribution of resources and burdens, and international law. P-One PHI course or POI.

**PHI 367. Philosophical Theories in Bioethics. (3 h)**

A study of the main philosophical approaches to contemporary bioethics. Each approach is examined critically and students explore how each approach informs analysis of contemporary issues in bioethics. P—One PHI course or POI.

**PHI 368. Concepts of Health & Disease. (3 h)**

Concepts of health, disease, and disability shape discussions in bioethics and health policy. This course examines and critically evaluates competing conceptions of health and disease. The implications of adopting different understandings of health and disease for bioethics and health policy are explored. P—One PHI course or POI.

**PHI 369. Philosophy and Psychology. (3 h)**

Examines philosophical issues relating to moral, social, behavioral, and/or cognitive psychology. Topics may include the existence and nature of moral character; bias, self deception, and denial; reasoning, intuition, and deliberation; and perception and consciousness. P - One PHI course or POI.

**PHI 370. Philosophy and Christianity. (3 h)**

Examination of the philosophical foundations of Christian thought and belief. Christian concepts of God and life everlasting, trinity, incarnation, atonement, prayer, sin, evil and obligation. P-One PHI course or POI.

**PHI 371. Aesthetics and the Philosophy of Art. (3 h)**

Covers such questions as: What is beauty? What is taste? What is art? Must art be beautiful? Can immoral art be good art? Readings may cover historical figures such as Plato or Kant, or may focus on contemporary writers. P-One PHI course or POI.

**PHI 372. Philosophy of Religion. (3 h)**

What is religion? Are the gods dead? Is God dead? Is religious belief a symptom of an underlying human weakness or biological process, or could it be a response to the sacred? Must believers rely on something less than knowledge? Are philosophical proofs the way to knowledge of God? What sort of problem is the "problem of evil" and what is its significance? How are religious beliefs like and unlike metaphysical, moral, and modern scientific beliefs? P - One PHI course or POI.

**PHI 373. Philosophy of Science. (3 h)**

Systematic and critical examination of major views concerning the methods of scientific inquiry, and the bases, goals, and implications of the scientific conclusions which result from such inquiry. P-One PHI course or POI.

**PHI 374. Philosophy of Mind. (3 h)**

Selection from the following topics: the mind-body problem; personal identity; the unity of consciousness; minds and machines; the nature of experience; action, intention, and the will. P-One PHI course or POI.

**PHI 375. Philosophy of Language. (3 h)**

Study of such philosophical issues about language as truth and meaning, reference and description, proper names, indexicals, modality, tense, the semantical paradoxes, and the differences between languages and other sorts of sign-systems. Also listed as LIN 375. P-One PHI course (221 strongly recommended) or POI.

**PHI 376. Epistemology. (3 h)**

The sources, scope and structure of human knowledge. Topics include: skepticism; perception, memory, and reason; the definition of knowledge; the nature of justification; theories of truth. P-One PHI course or POI.

**PHI 377. Metaphysics. (3 h)**

A survey of such issues as the nature and existence of properties, possibility and necessity, time and persistence, causation, freedom and determinism, and dualism versus materialism about the human person. P-One PHI course or POI.

**PHI 378. Philosophy of Space and Time. (3 h)**

Philosophical thought about space and time, from the Presocratics to the present. Topics may include the reality of the passage of time, paradoxes of change and motion, puzzles and the awareness of time, spacetime and relativity, and the possibility of time-travel. P-One PHI course or POI.

**PHI 379. Feminist Philosophy. (3 h)**

Examination of feminist approaches to philosophical theorizing. Topics may include feminist critiques of the scope and methods of mainstream philosophy, feminist approaches to ethics, epistemology and philosophy of language, and feminist conceptions of the self, sexuality, and moral agency. Also listed as WGS 240. P-one PHI course or POI.

**PHI 385. Seminar. (3 h)**

Offered by members of the faculty on specialized topics of their choice. With permission, may be repeated for credit. P-POI.

**PHI 391. Honors I. (1.5 h)**

Directed study and research in preparation for writing an honors thesis. P- Admission to the honors program in philosophy.

**PHI 392. Honors II. (1.5 h)**

Completion of the honors thesis begun in PHI 391. Graduation with honors in philosophy requires successful defense of the honors thesis in an oral examination conducted by at least two members of the department. P-PHI 391.

**PHI 395. Independent Study. (1-3 h)**

## Faculty

**Chair** Win-chiat Lee

**Associate Chair** Stavroula Glezakos

**Kenan Professor of the Humanities and Professor of Philosophy** Julian Young

**A.C. Reid Professor** Christian Miller

**Professors** Adrian Bardon, Ana S. Iltis, Ralph Kennedy, Win-chiat Lee

**Associate Professors** Emily Austin, Stavroula Glezakos, Patrick Toner

**Associate Teaching Professors** Adam J. Kadlac, Clark Thompson

**Part-time Associate Teaching Professor** Hannah M. Hardgrave

**Visiting Assistant Professors** Tyron Goldschmidt, Justin Jennings

## Philosophy, B.A.

### Requirements

Requires 27 hours. These must include:

Code	Title	Hours
One course from each of the following groups		15
I.	Ancient Greek Philosophy	
II.	Modern Philosophy	
III.	Value Theory	
IV.	Metaphysics and Epistemology	
V.	Electives	

No more than six hours of 100-level courses may be counted towards the major.

No more than 3 hours of independent study may be counted towards the major.

Only one of PHI 220 or PHI 221 (Logic and Symbolic Logic) may be counted towards the major.

No senior philosophy major may take a 100-level course.

At least 21 hours of the major must be completed at Wake Forest; exceptions require approval by the department chair. A minimum GPA of 2.0 in all courses completed in philosophy at Wake Forest is required for graduation with the major.

Students who plan to major in philosophy are strongly encouraged to complete their courses in ancient Greek philosophy and modern philosophy prior to their senior year.

Majors intending to do graduate study in philosophy are strongly advised to take the following courses:

Code	Title	Hours
PHI 221	Symbolic Logic	3
PHI 360	Ethics	3
At least one of the following:		
PHI 376	Epistemology	3
or PHI 377	Metaphysics	

Such majors should work closely with their major adviser as they consider their additional course choices.

## I. Ancient Greek Philosophy

Code	Title	Hours
PHI 232	Ancient Greek Philosophy	3
PHI 331	Plato	3
PHI 332	Aristotle	3
PHI 333	Hellenistic Philosophy	3

## II. Modern Philosophy

Code	Title	Hours
PHI 241	Modern Philosophy	3
PHI 341	Kant: Theoretical Philosophy	3
PHI 342	Topics in Modern Philosophy	3
PHI 343	Kant: Practical Philosophy	3

## III. Value Theory

Code	Title	Hours
PHI 360	Ethics	3
PHI 361	Topics in Ethics	3
PHI 362	Social and Political Philosophy	3
PHI 364	Freedom, Action, and Responsibility	3
PHI 366	Global Justice	3
PHI 367	Philosophical Theories in Bioethics	3

## IV. Metaphysics and Epistemology

Code	Title	Hours
PHI 373	Philosophy of Science	3
PHI 374	Philosophy of Mind	3
PHI 375	Philosophy of Language	3
PHI 376	Epistemology	3
PHI 377	Metaphysics	3
PHI 378	Philosophy of Space and Time	3

## V. Electives

Code	Title	Hours
PHI 221	Symbolic Logic	3
PHI 235	Main Streams of Chinese Philosophy	3
PHI 237	Medieval Philosophy	3
PHI 337	Thomas Aquinas	3
PHI 352	19th-Century European Philosophy: Hegel, Kierkegaard, Nietzsche	3
PHI 353	Heidegger	3
PHI 354	Wittgenstein	3
PHI 355	Contemporary Philosophy	3

PHI 356	Twentieth-Century European Philosophy	3
PHI 363	Philosophy of Law	3
PHI 365	Philosophy of Love and Friendship	3
PHI 368	Concepts of Health & Disease	3
PHI 369	Philosophy and Psychology	3
PHI 370	Philosophy and Christianity	3
PHI 371	Aesthetics and the Philosophy of Art	3
PHI 372	Philosophy of Religion	3
PHI 379	Feminist Philosophy	3

## Honors

Majors with a GPA of at least 3.3 overall and at least 3.7 in philosophy are eligible to apply for entrance into the honors program in philosophy. Majors interested in applying should consult with the department chair in the second semester of their junior year. The departmental honors committee will consider all applications and notify successful candidates during the summer prior to their senior year. Completion of 15 hours in philosophy courses is prerequisite to beginning work in the honors program. Graduation with "Honors in Philosophy" requires successful completion of PHI 391 and PHI 392, a GPA at the time of graduation of at least 3.7 in philosophy and 3.3 overall, and completion and successful defense of an honors thesis in an oral examination conducted by at least two members of the department. The hours earned in PHI 391 and PHI 392 do not count towards the 27 hours required of all majors.

## Philosophy, Minor

### Requirements

The minor in Philosophy requires 15 hours. At least 9 of these hours must be earned in courses taken at Wake Forest at the 200-level or higher. Only one of PHI 220 and PHI 221 may be counted towards the minor. Students interested in minoring in philosophy should consult with the department about choosing an appropriate sequence of courses.

## Physics (PHY)

The program for each student majoring in physics is developed through consultation with the student's major adviser and may lead to either a bachelor of arts or a bachelor of science degree. The bachelor of arts degree requires a minimum of basic physics courses and allows a wide selection of electives related to the student's interests in other disciplines, such as medicine, law, and business. The bachelor of science degree is designed for students planning careers in physics.

While the physics major can be started in the sophomore year, students are encouraged to take PHY 123 (or PHY 113) and PHY 124 (or PHY 114) and MST 111 and MST 112 in the first year. If this sequence is followed, the physics major may be completed with considerable flexibility in exercising various options, such as the five-year BS/MS program. If physics is not taken in the first year, the degree requirements in physics may still be completed by the end of the senior year if a beginning course is taken in the sophomore year. A candidate for the 3-2 engineering program would also complete three years of the bachelor of science physics major program prior to transfer. (Consult the chair of the department for additional information on these five-year programs.)

No student may be a candidate for a degree with a major in physics with a grade less than C in General Physics without special permission of the department. Students must achieve a minimum GPA of 2.0 in physics courses for graduation. In addition, all major students, except BS



Engineering, must take the ETS Major Field Test in Physics during their senior year, or as determined by the department and communicated by the major adviser(s).

Physics courses satisfying Division V requirements must be taken at Wake Forest. Satisfactory completion of the laboratory work is required for a passing grade in all courses with a laboratory.

## Contact Information

Physics Department (<http://www.physics.wfu.edu/>)  
Olin Physical Laboratory 100, Box 7507  
Phone 336-758-5337

## Programs Majors

- Biophysics, B.S.
- Physics, B.A.
- Physics, B.S.

## Minor

- Physics, Minor

## Courses Physics (PHY)

### PHY 105. Descriptive Astronomy. (4 h)

Introductory study of the universe, from the solar system to the galaxies. No lab.

### PHY 109. Astronomy. (4 h)

An introductory study of the universe consisting of descriptive astronomy, the historical development of astronomical theories, and astrophysics. Knowledge of basic algebra and trigonometry is required. Lab-2 hours. (D)

### PHY 109L. Astronomy Lab. (0-1 h)

### PHY 110. Introductory Physics. (4 h)

A conceptual, non-calculus one-semester survey of the essentials of physics, including mechanics, wave motion, heat, sound, electricity, magnetism, optics, and modern physics. Not recommended for premedical, mathematics, or science students. A student who has credit for PHY 111, 113, 114, 123 or 124 or who is currently taking PHY 113, 114, 123 or 124 is not allowed to register for PHY 110. Lab-2 hours. (D, QR)

### PHY 110L. Introductory Physics Lab. (0 h)

### PHY 111. Mechanics Waves and Heat. (4 h)

Introduction to mechanics, wave motion, thermodynamics, and sound. Extensive use of algebra and trigonometry. Credit allowed for either PHY 111, 113 or 123 but not for more than one. Lab-2 hours. Available for transfer, AP, IB, or A-levels credit only; not approved for summer school elsewhere. (QR)

### PHY 113. General Physics I. (4 h)

Essentials of mechanics, wave motion, heat, and sound treated with some use of calculus. Recommended for science, mathematics, and premedical students. Credit allowed for either PHY 111, 113 or 123 but not for more than one. Lab-2 hours. C-MST 111 or 112 or equivalent. (D, QR)

### PHY 113L. General Physics Lab. (0 h)

### PHY 114. General Physics II. (4 h)

Essentials of electricity, magnetism, optics, and modern physics treated with some use of calculus. Recommended for science, mathematics, and premedical students. Credit allowed for either PHY 114 or 124, but not both. Lab-2 hours. P-MST 111 or 112 or equivalent and PHY 111, 113, or 123. (D, QR)

### PHY 114L. General Physics II Lab. (0 h)

### PHY 115. The Physics of Music. (4 h)

Introduction to the physics of music, using algebra and trigonometry. Basic physical concepts associated with motion, force and energy are applied to ideal vibrating systems, resonant systems, strings, and sound waves. Uses of these concepts are explored in relation to musical instruments the human voice, signal processing and room acoustics (D, QR).

### PHY 120. Physics and Chemistry of Environment. (4 h)

Covers the basic physical and chemical processes in the earth's atmosphere, biosphere and the oceans. Also listed as PHY 120. (D, QR)

### PHY 120L. Physics and Chemistry of the Environment Lab. (0 h)

C-PHY 120.

### PHY 123. General Physics I - Studio Format. (4 h)

In-depth introduction to mechanics, wave motion, heat, and sound treated with use of calculus and employing advanced techniques and interactive learning. Recommended for potential physics majors. Credit allowed for either PHY 111 or 113 or 123, but not more than one. Lab - 2 hours. C-MST 111 or 112 or equivalent. (D, QR)

### PHY 123L. General Physics I - Studio Format Lab. (0 h)

### PHY 124. General Physics II - Studio Format. (4 h)

In-depth introduction to electricity, magnetism, optics, and modern physics treated with use of calculus and employing advanced techniques and interactive learning. Recommended for potential physics majors. Credit allowed for either PHY 114 or 124, but not both. Lab - 2 hours. P-MST 111 or 112 or equivalent and PHY 111 or 113 or 123. (D, QR)

### PHY 124L. General Physics II - Studio Format Lab. (0 h)

### PHY 215. Elementary Modern Physics. (3 h)

Development of 20th-century physics and an introduction to quantum ideas. The physics department recommends that PHY 215 be taken concurrently with PHY 265. P-PHY 114 or 124 and MST 111 or MST 112. (D, QR)

### PHY 230. Electronics. (3 h)

Introduction to the theory and application of transistors and electronic circuits. Lab-three hours. P - PHY 114 or 124. (D, QR)

### PHY 262. Mechanics. (3 h)

Study of the equations of motion describing several kinds of physical systems: velocity-dependent forces; damped and forced simple harmonic motion; orbital motion; inertial and non-inertial reference frames. Includes extensive use of computers. P-PHY 113 or 123, and MST 205 or MST 251, and C-MST 113. (D, QR)

### PHY 265. Intermediate Laboratory I. (1 h)

Experiments on modern physics. P or C-PHY 215.

### PHY 266. Intermediate Laboratory II. (1 h)

Experiments on mechanics, electronics, and computer simulations. P or C-PHY 262.



**PHY 301. Physics Seminar. (0.5 h)**

Discussion of contemporary research, usually with visiting scientists. Attendance required of junior and senior physics majors. Does not count toward the six hours of electives required for the BA major. Pass/Fail only.

**PHY 303. Physics Internship. (0 h)**

Independent study in Physics under faculty mentorship. P-POI.

**PHY 307. Biophysics. (3 h)**

Introduction to the structure, dynamic behavior, and function of DNA and proteins, and a survey of membrane biophysics. The physical principles of structure determination by X-ray, NMR, and optical methods are emphasized. Also listed as BIO 307. P-BIO 114 or 214, PHY 113 or 123, PHY 114 or 124, or POI. BIO 150, 150L, 160, and 160L may be substituted for BIO 114 and 214.

**PHY 310. Extragalactic Astronomy and Cosmology. (3 h)**

Topics covered include galactic structure, models for galaxies and galaxy formation, the large scale structure of the universe, the big bang model of the universe, physical processes such as nucleosynthesis in the early universe, and observational cosmology. P-PHY 262 and MST 205 or 251. (D)

**PHY 320. Physics of Biological Macromolecules. (3 h)**

The physics of large biologically important molecules, especially proteins and nucleic acids. Topics covered include the physical basis of biomolecular structure, the energetics and statistical mechanics of biomolecular dynamics, and the electrostatics and solvation of biomolecules. Designed for students with biochemistry, chemistry, or physics backgrounds. P-PHY 113 or 123, 114 or 124. (D)

**PHY 325. Biophysical Methods Laboratory. (1.5 h)**

Experiments using various biophysical techniques such as electron paramagnetic resonance, atomic force microscopy, stopped-flow absorption spectroscopy, X-ray diffraction, and gel electrophoresis. C-PHY 307.

**PHY 335. Computational Physics. (3 h)**

An introduction to finding numerical solutions to scientific problems. Topics include understanding computational errors, differentiation, integration, interpolation, root finding, random numbers, linear systems, Fourier methods, and the solution of ODEs and PDEs. There is no computer programming prerequisite. Credit will not be given for both PHY 335 and CSC 355/MST 355. P-MST 113 and 205 (or instead of MST 205, P-MST 121 and 251), or POI.

**PHY 337. Analytical Mechanics. (1.5 h)**

The Lagrangian and Hamiltonian formulations of mechanics with applications. Taught in the first half of the fall semester. P-PHY 262, MST 113 and 205 (or instead of MST 205, P-MST 121 and 251).

**PHY 339. Electricity and Magnetism. (1.5 h)**

Electrostatics, magnetostatics, dielectric and magnetic materials, Maxwell's equations and applications to radiation, relativistic formulation. PHY 339 is taught in the second half of the fall semester, following PHY 337. These should be taken in sequence. P-PHY 114 or 124, MST 113 and MST 205 or 251. (D)

**PHY 340. Electricity and Magnetism. (3 h)**

Electrostatics, magnetostatics, dielectric and magnetic materials, Maxwell's equations and applications to radiation, relativistic formulation. PHY 340 is taught in the spring semester after PHY 339. These should be taken in sequence. P-PHY 339. (D)

**PHY 341. Thermodynamics and Statistical Mechanics. (3 h)**

Introduction to classical and statistical thermodynamics and distribution functions. Also listed as CHM 341. Also offered in Salamanca. P-PHY 215 and MST 113. (D)

**PHY 343. Quantum Physics. (3 h)**

Basic quantum theory and applications including the time-independent Schrodinger equation, formalism and Dirac notation, the hydrogen atom, spin, identical particles, and approximation methods. P-PHY 215, MST 113 and 205 (or instead of MST 205, P-MST 121 and 251). (D)

**PHY 344. Quantum Physics. (3 h)**

Basic quantum theory and applications including the time-independent Schrodinger equation, formalism and Dirac notation, the hydrogen atom, spin, identical particles, and approximation methods. P-PHY 343. (D)

**PHY 347. Intellectual Property in Science and Engineering. (1 h)**

Introduction to the process of creating and protecting intellectual property, with discussion of economic impact of IP rulings and concept of a non-disclosure agreement. Working with representative examples from physics, engineering, and biotechnology, the students, working in small teams, will analyze and create invention disclosures, patent applications, and issued patents. Recommended background: three courses from the major tracks in physics, chemistry, biology, or computer science.

**PHY 352. Physical Optics and Optical Design. (4 h)**

Interaction of light with materials; diffraction and coherent optics; ray trace methods of optical design. Lab-3 hours. P-PHY 114 or 214 and PHY 215. (D)

**PHY 352L. Physical Optics Lab. (0 h)****PHY 354. Introduction to Solid State Physics. (3 h)**

A survey of the structure, composition, physical properties, and technological applications of condensed matter. P-PHY 343. (D)

**PHY 355. Exotic Materials. (1.5 h)**

Study of materials that express exotic properties that are derived from some aspect of the system's dimensionality, introduces the thermal, electrical, optical and magnetic properties of exotic materials systems. Discusses simple models for the structure-property relationships for a wide range of of nanoscale and low-dimensional systems. C - PHY 343.

**PHY 356. Electron-Imaging Sciences. (1.5 h)**

Introduces the theory and application of the electron imaging systems: transmission electron microscopy (TEM) and scanning electron microscopy (SEM). Focuses on basic materials science though some biological materials will be covered. Taught as a series of lectures followed by laboratories. P - PHY 215.

**PHY 357. Scanning Probes. (1.5 h)**

Examines the theory and application of scanning tunneling microscopy and atomic force microscopy (STM/AFM). Introduces how each type of imaging works, how to model spectroscopic data, and how to use each microscope. Students will image using the STM and AFM as well as take and reduce spectroscopy data using models built in Maple or Mathematica. P - PHY 215.

**PHY 358. Kinetics of Materials. (1.5 h)**

Study of driving forces for atomic and ionic motion within solids leading to a range of materials properties from work hardening to phase transformations and formation. Atomic-level models for diffusion will be introduced as well as techniques and examples of the solution to the diffusion equation. Complements the traditional thermodynamics course. C - PHY 341 and 354 or POI.

**PHY 361. Biophysics Seminar. (1 h)**

Seminal and current publications in biophysics will be studied. Each week a member of the class will make an oral presentation on a chosen publication and will lead the ensuing discussion. Pass-fail only.

**PHY 363. Condensed Matter Seminar. (1 h)**

Seminal and current publications in condensed matter physics are studies. Each week a member of the class makes an oral presentation on a chosen publication and leads the ensuing discussion. Pass-fail only.

**PHY 381. Research. (1.5-3 h)**

Library, conference, computation, and laboratory work performed on an individual basis. May be repeated for credit.

**PHY 385. Bioinformatics. (3 h)**

Introduction to computational approaches essential to modern biological inquiry. Approaches may include large biological dataset analyses, sequence similarity and motif searches, and analysis of high-throughput genomic technologies. Emphasizes interdisciplinary interaction and communication. Also listed as CSC 385 and BIO 385. P-CSC 201 or 221 (and BIO 150, 150L, 160, and 160L if taken as BIO 385) or POL.

**PHY 391. Special Topics in Physics. (1-4 h)**

Courses in selected topics in physics. May be repeated if course content differs.

**PHY 392. Special Topics in Physics. (1-4 h)**

Courses in selected topics in physics. May be repeated if course content differs.

## Faculty

**Chair** Daniel Kim-Shapiro

**Professor Harbert Family Distinguished Chair for Excellence in Teaching and Scholarship** Daniel Kim-Shapiro

**Professor and Wright Family Endowed Chair in Physics** Timo Thonhauser

**Baker Family Professor of Physics** Oana D. Jurchescu

**Professor and Associate Chair** Martin Guthold

**Professor and Associate Provost for Research and Scholarly**

**Activities** Keith Bonin

**Professors** Paul R. Anderson, David L. Carroll, Natalie A. W. Holzwarth, Jed Macosko

**Scott Family Faculty Fellow and Professor** Freddie Salsbury

**Research Professors** George Holzwarth, George Eric Matthews, William Kerr, Richard T. Williams

**Emeritus Professor** Howard Shields

**Associate Professors** Eric D. Carlson, Samuel S. Cho, Gregory B. Cook

**Assistant Professors** Ilaria Bargigia, Ajay Ram Srimath Kandada, Stephen M. Winter

**Research Associate Professors** Swati Basu, Kamil Burak Ücer

**Associate Teaching Professor** Jack Dostal

**Adjunct Professor** John D. Bourland, Michale Munley, Mark W. Roberson, Peter Santiago

**Adjunct Assistant Professor** Adam Hall

**Affiliate Assistant Professor** Erin Henslee, Lauren Lowman

## Biophysics, B.S.

### Requirements

Requires 23.5 hours in physics and must include the following courses:

Code	Title	Hours
<b>Required Major Courses</b>		
PHY 123 or PHY 113 or PHY 111	General Physics I - Studio Format General Physics I Mechanics Waves and Heat	4
PHY 124 or PHY 114	General Physics II - Studio Format General Physics II	4

PHY 215	Elementary Modern Physics	3
PHY 230	Electronics	3
PHY 262	Mechanics	3
PHY 265	Intermediate Laboratory I	1
PHY 266	Intermediate Laboratory II	1
PHY 381	Research (for a minimum of 1.5 hours) ***	1.5-3
Select two of the following:		6-8
PHY 307 & PHY 325	Biophysics and Biophysical Methods Laboratory	
PHY 320	Physics of Biological Macromolecules	
PHY 341	Thermodynamics and Statistical Mechanics *	
	or CHM 341 Physical Chemistry I	
PHY 385	Bioinformatics	
BIO 384	Molecular Evolution	
CSC 387	Computational Systems Biology	
In addition, Graduate courses in BME or medical physics may also be substituted with permission of the instructor, office of academic advising, advisor and chair		

<b>Co-Requirements</b>		
MST 113	Multivariable Calculus ***	4
MST 205	Introduction to Linear Algebra and Differential Equations ***	4
or MST 121 & MST 251	Linear Algebra I and Ordinary Differential Equations	
CHM 111 & 111L	College Chemistry I and College Chemistry I Lab	4
CHM 122 & 122L	Organic Chemistry I and Organic Chemistry I Lab	4
CHM 280	College Chemistry II	3
BIO 150 & 150L	Biology I and Biology I Lab	4
BIO 160 & 160L	Biology II and Biology II Lab	4
BIO/CHM 370	Biochemistry I: Macromolecules and Metabolism	3

\* Substitutions for PHY 341 and PHY 381 will count toward the required hours in physics.

\*\* Students may substitute CHM 391/ CHM 392 or BIO 391/ BIO 392/BIO 393/ BIO 394 for PHY 381 in consultation with their adviser. Substitutions for PHY 341 and PHY 381 will count toward the required hours in physics.

\*\*\* Students must earn a minimum C grade in MST 113 as well as MST 205 or MST 121/MST 251.

Students are advised to complete math requirements as early as possible. Students are strongly encouraged to take either CSC 102 or CSC 111; early in their curriculum if possible. CSC 111 would be appropriate for majors who are interested in further study in computer science, such as through a double major or minor in Computer Science. Otherwise, we encourage our majors to take CSC 102.

No student may be a candidate for a degree with a major in biophysics with a grade less than C in General Physics without special permission of the department. Students must achieve a minimum GPA of 2.0 in physics courses for graduation.

Honors

Highly qualified majors are invited by the department to apply for admission to the honors program in physics through the major adviser. To be graduated with the designation “Honors in Physics,” students must:

- pass PHY 381
- write a paper on the results of the research in that course
- pass an oral exam on the research and related topics given by a committee of three physics faculty members
- obtain a GPA of at least 3.3 in physics and 3.0 overall

Physics, B.A.

Requirements

Requires 25 hours in physics and must include the following courses:

Code	Title	Hours
Required Major Courses		
PHY 123	General Physics I - Studio Format	4
or PHY 113	General Physics I	
or PHY 111	Mechanics Waves and Heat	
PHY 124	General Physics II - Studio Format	4
or PHY 114	General Physics II	
PHY 215	Elementary Modern Physics	3
PHY 230	Electronics	3
PHY 262	Mechanics	3
PHY 265	Intermediate Laboratory I	1
PHY 266	Intermediate Laboratory II	1
Select 6 hours of any other 300-level courses in the department *		6
Co-Requirement		
MST 113	Multivariable Calculus **	4
MST 205	Introduction to Linear Algebra and Differential Equations **	4
or MST 251	Ordinary Differential Equations	

\* Except PHY 381. Students may substitute CHM 341 for PHY 341.  
\*\* Students must earn a minimum C grade in MST 113, MST 205 or MST 251.

MST 251 can substitute for MST 205 for the MST requirement for the BA degree, but not for specific course pre- or co-requirements, unless already specified in the course description. Students are strongly encouraged to take either CSC 102 or CSC 111; early in their curriculum if possible. CSC 111 would be appropriate for majors who are interested in further study in computer science, such as through a double major or minor in Computer Science. Otherwise, we encourage our majors to take CSC 102.

No student may be a candidate for a degree with a major in physics with a grade less than C in General Physics without special permission of the department. Students must achieve a minimum GPA of 2.0 in physics courses for graduation.

Honors

Highly qualified majors are invited by the department to apply for admission to the honors program in physics through the major adviser. To be graduated with the designation “Honors in Physics,” students must:

- pass PHY 381
- write a paper on the results of the research in that course
- pass an oral exam on the research and related topics given by a committee of three physics faculty members
- obtain a GPA of at least 3.3 in physics and 3.0 overall

Physics, B.S.

Requirements

Requires 38 hours in physics and must include the following courses:

Code	Title	Hours
Required Major Courses		
PHY 123	General Physics I - Studio Format	4
or PHY 113	General Physics I	
or PHY 111	Mechanics Waves and Heat	
PHY 124	General Physics II - Studio Format	4
or PHY 114	General Physics II	
PHY 215	Elementary Modern Physics	3
PHY 230	Electronics	3
PHY 262	Mechanics	3
PHY 265	Intermediate Laboratory I	1
PHY 266	Intermediate Laboratory II	1
PHY 301	Physics Seminar (at least twice)	1
PHY 337	Analytical Mechanics	1.5
PHY 339	Electricity and Magnetism	1.5
PHY 340	Electricity and Magnetism	3
PHY 341	Thermodynamics and Statistical Mechanics *	3
PHY 343	Quantum Physics	3
PHY 344	Quantum Physics	3

The remaining hours may be satisfied with any other 300-level course in the department.

Co-Requirements		
MST 113	Multivariable Calculus **	4
MST 205	Introduction to Linear Algebra and Differential Equations **	4
or MST 121 & MST 251	Linear Algebra I and Ordinary Differential Equations	
One additional course at the 200 level or above in statistics, mathematics, or computer science other than independent study courses is required		3-4

\* Students may substitute CHM 341 for PHY 341.  
\*\* Students must earn a minimum C grade in MST 113, MST 205 or MST 121/MST 251.

Students are advised to complete math requirements as early as possible. Students are strongly encouraged to take either CSC 102 or CSC 111; early in their curriculum if possible. CSC 111 would be appropriate for majors who are interested in further study in computer

science, such as through a double major or minor in Computer Science. Otherwise, we encourage our majors to take CSC 102.

No student may be a candidate for a degree with a major in physics with a grade less than C in General Physics without special permission of the department. Students must achieve a minimum GPA of 2.0 in physics courses for graduation.

## Honors

Highly qualified majors are invited by the department to apply for admission to the honors program in physics through the major adviser. To be graduated with the designation "Honors in Physics," students must:

- pass PHY 381
- write a paper on the results of the research in that course
- pass an oral exam on the research and related topics given by a committee of three physics faculty members
- obtain a GPA of at least 3.3 in physics and 3.0 overall

## Physics, Minor

### Requirements

Requires 17 hours in Physics, which must include:

Code	Title	Hours
PHY 111	Mechanics Waves and Heat	4
or PHY 113	General Physics I	
or PHY 123	General Physics I - Studio Format	
PHY 114	General Physics II	4
or PHY 124	General Physics II - Studio Format	
PHY 215	Elementary Modern Physics	3
PHY 262	Mechanics	3
Pre- or Co-requisite Courses:		
MST 113	Multivariable Calculus	4
MST 205	Introduction to Linear Algebra and Differential Equations	4
or MST 251	Ordinary Differential Equations	

Students may substitute CHM 341 for PHY 341 toward the required hours in physics.

MST 251 can substitute for MST 205 for the MST requirement for the minor, but not for specific course pre- or co-requirements, unless already specified in the course description.

Students interested in the minor should contact the faculty member responsible for advising physics majors. (Inquire in Olin Physical Laboratory, Room 100.)

## Politics and International Affairs (POL)

In its broadest conception, the aim of the study of politics is to understand the way in which policy for a society is formulated and executed and to understand the moral standards by which policy is or ought to be set. This center of interest is often described alternatively as the study of power, of government, of the state, or of human relations in

their political context. For teaching purposes, the study of politics has been divided by the department into the following fields:

1. American politics
2. Comparative politics
3. Political theory
4. International politics

Introductory courses in these fields provide broad and flexible approaches to studying political life.

## Five-Year BA/MA Degree

Politics and international affairs majors who minor in Latin-American studies also have the opportunity to pursue a five-year cooperative BA/MA degree program at Georgetown University in Washington, D.C.

A student who selects politics and international affairs to fulfill the Division IV requirement must take one of the following courses:

Code	Title	Hours
Select one of the following:		
POL 113	American Government and Politics	
POL 114	Comparative Government and Politics	
POL 115	Political Theory	
POL 116	International Politics	

Students who are not majors may take upper-level courses as electives without having had lower-level courses, unless a prerequisite is specified.

## Contact Information

Department of Politics and International Affairs (<http://college.wfu.edu/politics/>)  
Kirby Hall 314A, Box 7568  
Phone 336-758-5449

## Programs Major

- Politics and International Affairs, B.A.

## Minor

- Politics and International Affairs, Minor

## Courses

### Politics and International Affairs (POL)

#### POL 113. American Government and Politics. (3 h)

The nature of politics, political principles, and political institutions, with emphasis on their application to the United States. (D)

#### POL 114. Comparative Government and Politics. (3 h)

An analysis of political institutions, processes, and policy issues in selected countries. Case studies will be drawn from Africa, Asia, Europe, and Latin America. (CD, D)

#### POL 115. Political Theory. (3 h)

Introduces the major concepts, questions, and ideas from across the history of political thought, to examine the nature of politics and the moral and ethical aspects of political life. (D)



**POL 116. International Politics. (3 h)**

Surveys the forces which shape relations among states and some of the major problems of contemporary international politics. (CD, D)

**POL 202. Political Structures of Present-day Spain. (3 h)**

A study of the various political elements which affect the modern Spanish state. Counts as an elective for the Spanish major.

**POL 209. US Environmental Policy and Politics. (3 h)**

Explores the origins and current state of United States policies on the environment, the politics that have produced those policies, and how both continue to evolve. Attention to the policy formation process, the institutions and groups that influence American policy concerning the environment, and the major environmental laws and controversies surrounding them, with particular attention to the role and functioning of the US Environmental Protection Agency. While focusing on the American experience, recognizes the impacts of US policies on the rest of the world.

**POL 210. Topics In United States Politics and Policy. (3 h)**

An intensive study of one or more major problems in contemporary United States politics and policy. Course may be retaken for credit if topic varies.

**POL 211. Political Parties, Voters, and Elections. (3 h)**

An examination of party competition, party organizations, the electorate and electoral activities of parties, and the responsibilities of parties for governing.

**POL 212. U.S. Policymaking in the Twenty-first Century. (3 h)**

Examines the contemporary United States policymaking process. Special attention to ways issues become important and contributions of different political actors, institutions, and ideologies in the passage or rejection of policy proposals. Considers a range of social, economic, and regulatory policies.

**POL 213. Economic Inequality and American Politics. (3 h)**

Examines patterns of economic inequality in the United States, weighs competing causal explanations for changing distributions of income and wealth, and investigates the effects of this inequality on American democracy.

**POL 214. Latino/a Political Behavior. (3 h)**

Examines the contemporary role of Latinos as a minority group in the U.S. with emphasis on U.S. immigration policies. Latina/o political participation and identity, and interracial coalition formations. Service-learning course. (CD)

**POL 215. Citizen and Community. (3 h)**

An examination of the role and responsibilities of citizens in democratic policymaking. Includes discussion of democratic theory, emphasis on a policy issue of national importance (i.e. poverty, crime, environment), and involvement of students in projects that examine the dimension of the issue in their community. Service Learning.

**POL 216. U.S. Social Welfare Policy. (3 h)**

An analysis of U.S. social policymaking and policy outcomes on issues such as welfare, education, health care, and Social Security, with an emphasis on historical development and cross-national comparison.

**POL 217. Politics and the Mass Media. (3 h)**

Exploration of the relationship between the political system and the mass media. Two broad concerns will be the regulation of the mass media and the impact of media on political processes and events.

**POL 218. Congress and Policymaking. (3 h)**

An examination of the composition, authority structures, external influences, and procedures of Congress with emphasis on their implications for policymaking in the United States.

**POL 219. Political Participation. (3 h)**

Examines political participation in the United States, with emphasis on electoral and non-electoral avenues through which individuals and groups wield influence in politics and government, including voting, interest groups, and social movements. Service-learning course.

**POL 220. The American Presidency. (3 h)**

Explores the interaction of the presidential office and the individual contemporary presidents in an evolving political context.

**POL 221. State Politics. (3 h)**

An examination of institutions, processes, and policies at the state level, with emphasis on the different patterns of governance in the various states and the consequences of the recent revitalization of state governments.

**POL 222. Urban Politics. (3 h)**

Examines the political structures and processes in American cities and suburbs as they relate to the social, economic, and political problems of the metropolis. Service-learning Course. (CD)

**POL 223. African American Politics. (3 h)**

A survey of selected topics, including African American political participation, political organizations, political leadership, and political issues. It will also show the relationship of these phenomena to American political institutions and processes as a whole.

**POL 224. Racial and Ethnic Politics. (3 h)**

Analysis of the impact and interactions of African Americans, Latinos, Asian Americans, American Indians, and Whites in U.S. politics, with special emphasis on the racial identity development, minority representation, and the U.S. criminal justice system. Service-learning course. (CD)

**POL 225. American Constitutional Law: Separation of Powers and the Federal System. (3 h)**

Analysis of Supreme Court decisions affecting the three branches of the national government and federal/state relations.

**POL 226. American Constitutional Law: Civil Rights and Liberties. (3 h)**

Analysis of Supreme Court decisions involving the Bill of Rights and the Fourteenth Amendment of the U.S. Constitution.

**POL 227. Politics, Law, and Courts. (3 h)**

Analysis of the intersection of law and democratic politics through consideration of judicial selection, judicial decision making, and the roles of various legal actors, including judges, lawyers, and juries.

**POL 228. Politics of Public Education. (3 h)**

Introduces students to some of the most popular and contentious contemporary education policy debates and discusses what the U.S. school system tells us about the country's fundamental political commitments.

**POL 229. Women, Gender, and Politics. (3 h)**

Examines classical and contemporary studies of how gender structures politics, including the political participation of women and other gendered social groups, as well as current policy issues.



**POL 230. Political and Economic Development of Western Europe. (3 h)**

Analyzes the historical antecedents of Western European regime outcomes in the interwar period in order to explain the survival or collapse of democracy in the 1920s and 1930s in Great Britain, France, Germany, and Italy. Explores contrasting responses to economic, social, and political challenges since the middle ages, including the commercialization of agriculture, national unification, revolution, and the timing and strength of industrialization.

**POL 231. Western European Politics. (3 h)**

Comparative analysis of political institutions, processes, and policy issues in selected West European countries. Special attention will be given to case studies involving Great Britain, France, Germany, Italy and to the process of European integration.

**POL 232. Politics in Russia and Eastern Europe. (3 h)**

Analysis of the political, economic, and social patterns of the region, emphasizing the dynamics and divergent outcomes of the regime transitions after the fall of communism in Central and Eastern Europe and the former Soviet Union.

**POL 233. The Politics of Modern Germany. (3 h)**

Study of the historical legacy, political behavior, and governmental institutions of contemporary Germany.

**POL 234. United Kingdom Politics in a Global Age. (3 h)**

Introduces the nature and content of contemporary United Kingdom politics by placing those politics in a wider analysis of United Kingdom history, society, and international positions. (CD)

**POL 235. European Integration. (3 h)**

Combines different approaches to the study of Europe by examining European integration-as highlighted by the development of the European Union-through the lenses of history, politics, culture, and economics.

**POL 236. Government and Politics in Latin America. (3 h)**

Comparative analysis of the institutions and processes of politics in the Latin American region. (CD)

**POL 237. The Comparative Politics of Welfare States. (3 h)**

Examines the historical development and cross-national variation of welfare states in advanced industrial societies, including the United States and Western European democracies. Assesses characteristic policy challenges and responses across a number of shared domains, including pensions, health care, anti-poverty programs, family benefits, and labor-market policy.

**POL 238. Comparative Economic and Political Development. (3 h)**

Overview of the relationship among economic development, socio-structural change, and politics since the creation of the international capitalist system in the sixteenth century. Explores classic debates and paradigms in political economy and applies them to particular policy and institutional domains, including macroeconomic policy, finance, globalization, the challenges of late development, and the welfare state.

**POL 239. State, Economy, and International Competitiveness. (3 h)**

Introduces a range of important case studies of national economic performance to illustrate the role of public policy in economic performance in a number of leading industrial economies (the U.S., United Kingdom, Germany, Sweden, China, and Japan).

**POL 240. Politics of Human Rights. (3 h)**

Looks at the policy of dilemmas that both restored and new democracies face when dealing with past human rights violations and how they engage in structuring the domain of human rights in a changed global environment. (CD)

**POL 241. Contemporary India. (3 h)**

Examines the opportunities and constraints facing modern India across a range of issues including politics, international relations, economics, religion, caste and the environment.

**POL 242. Topics in Comparative Politics. (3 h)**

An intensive study of one or more major problems in contemporary comparative politics. Course may be retaken for credit if topic varies.

**POL 243. Corruption. (3 h)**

This course addresses the politics of appropriation of public resources for private gain, with a focus on why corruption levels vary across countries, why people choose to participate in corruption, and the effects of corruption on politics and the economy.

**POL 244. Politics and Literature. (3 h)**

Examines how literature can extend knowledge of politics and political systems. Considers the insights of selected novelists. Thematic and regional focus of the course will vary with instructor.

**POL 245. Ethnonationalism. (3 h)**

This course is concerned with the role of ethnicity in world politics. It focuses on both theoretical and substantive issues relating to: (a) the nature of ethnicity and ethnic group identity; (b) the sources of ethnic conflict; (c) the politics of ethnic conflict; (d) the policy management of ethnic conflict; and (e) international intervention in ethnic conflict.

**POL 246. Politics and Policies in South Asia. (3 h)**

A survey of major issues relevant to politics and policy in India, Pakistan, Bangladesh, and Sri Lanka. (CD)

**POL 247. Islam and Politics. (3 h)**

Explores the interrelationship of Islam and politics in the contemporary world/ Deals with Islam as a political ideology which shapes the structure of political institutions and behavior. Looks at Islam in practice by examining the interaction between Islam and the political systems of Iran, Pakistan, Saudi Arabia and others. (CD)

**POL 248. Chinese Politics. (3 h)**

A survey of the political institutions and processes in China (People's Republic of China and Republic of China). Emphasis on group conflict, elites, ideology, as well as current policy changes in the process of modernization.

**POL 250. Afghanistan, Pakistan, Iraq and U.S. Policy since 2001. (3 h)**

Broadly addresses the phenomena of U.S. involvement in two ongoing conflicts-the Afghanistan war and the Iraq war. Focuses on the respective domestic and international politics and policies of the four main actors relevant to the conflicts: U.S., Afghanistan, Pakistan, and Iraq.

**POL 251. Politics of Forced Migration. (3 h)**

Addresses major questions about forced migration in international politics, such as: What causes people to flee their homes? What are the effects of forced displacement on the host communities? How should considerations of human rights and international law affect our understanding of forced migration?

**POL 252. Topics in International Politics. (3 h)**

An intensive study of one or more major problems of contemporary international politics. Course may be retaken for credit if topic varies.

**POL 253. International Political Economy. (3 h)**

Analyzes major issues in the global political economy including theoretical approaches to understanding the tension between politics and economics, monetary and trade policy, North-South relations, environmentalism, human rights and democratization.

**POL 254. U.S. Foreign Policy. (3 h)**

Analyzes the historical and theoretical perspectives shaping U.S. engagement with the world past and present. Applies this understanding to current problems in U.S. foreign policy.

**POL 255. Terrorism and Asymmetric Conflict. (3 h)**

A historical survey and analysis of terrorism and other forms of political violence, such as insurgency and guerrilla warfare involving state and non-state actors. Focuses on a variety of cases along with and examination of the challenges of counter-terrorism and counter-insurgency in the contemporary global system.

**POL 256. International Security. (3 h)**

Explores various theoretical approaches to security studies and contemporary security issues, with special attention to domestic variables, the use of force, strategic culture, weapons of mass destruction, the political economy of national security, and terrorism.

**POL 257. Politics of International Development. (3 h)**

Examines why some nations develop at a quite fast pace while others - even when rich in natural resources - don't. Explores the impact of colonial history, state-formation, civil conflicts, governance issues, and rising powers on economic growth and development.

**POL 258. International Relations of South Asia. (3 h)**

Examines the foreign policy decision making in India, Pakistan, Bangladesh and Sri Lanka vis-a-vis each other and major powers such as the U.S., Russia, and China.

**POL 259. Palestine and the Arab-Israeli Conflict. (3 h)**

Explores the nature and scope of the conflict with particular emphasis on the time period post-1967 and the respective policies of the three most significant actors in the conflict: the U.S., Israel and Palestine.

**POL 260. United States and East Asia. (3 h)**

An analytical survey of United States interaction with East Asia, with special emphasis on the strategic security and the political economy of the region. (CD)

**POL 261. International Law. (3 h)**

Analyzes major issues in public international law including sources of international law, state sovereignty, territorial jurisdiction, treaties, peaceful settlement of disputes, human rights, and the relationship between international law and domestic law.

**POL 262. International Organizations. (3 h)**

A survey of the philosophy, principles, organizational structure, and decision-making procedures of international organizations. In addition to the United Nations system, this course will analyze various international organizations in issues such as collective security, trade, economic development, human rights protection, and the environment.

**POL 263. U.S. Foreign Policy in the Middle East. (3 h)**

A critical analysis of U.S. foreign policy with respect to the Middle East since the Second World War. This course utilizes a case study method of instruction.

**POL 264. Moral Dilemmas in International Politics. (3 h)**

Examines moral dilemmas in international politics with reference to theories and cases. Topics include just war doctrine, responsibility of rich countries toward poor countries, exportability of capitalism and democracy, and legitimacy of humanitarian intervention.

**POL 266. Modern Civil Wars. (3 h)**

Examines and assesses competing theories of civil war, including economic, ethnic, religious, and ideological explanations. It also addresses dilemmas raised by civil war such as the spread of HIV/AIDS, the proliferation of private security companies, and the abuse of humanitarian aid.

**POL 267. Intelligence and International Politics. (3 h)**

Explores various facets of the world of intelligence and espionage in international politics, including intelligence collection and analysis, covert action, counterintelligence, the role of foreign intelligence agencies the relationship of the intelligence community to other political institutions, and important ethical issues and controversies in the field of intelligence today.

**POL 268. International Conflict Resolution. (3 h)**

Explores various approaches to conflict resolution through readings, case studies, and simulations. Issues include: negotiation and mediation, dealing with war criminals, tradeoffs between justice and peace, and the role of the international community.

**POL 269. Topics in Political Theory. (3 h)**

An intensive study of one or more major topics in political theory. Course may be retaken for credit if topic varies.

**POL 270. Ethics and Agency. (3 h)**

Explores the question of agency in relation to ethics with attention to practices of ethics that focus on judgment. Selected writings from Aristotle, Arendt, and Foucault.

**POL 271. Classical Political Thought. (3 h)**

Examination of the nature and goals of classical political theorizing, with attention to its origins in ancient Athens and its diffusion through Rome. Representative writers include Plato, Aristotle, and Cicero.

**POL 272. Democratic Theory. (3 h)**

Examination of the theoretical underpinnings of democracy and some of the critiques of those foundations. Focus will be on understanding some of the major theories of democracy and on how key democratic concepts are defined differently within these various traditions.

**POL 273. Marx, Marxism and Post-Marxism. (3 h)**

Examines Marx's early humanistic writings, his later philosophy, the vicissitudes of 20th-century Marxism and attempts to reorient Marx's theory in light of developments in contemporary political thought and practice.

**POL 274. Arab and Islamic Political Thought. (3 h)**

Examines the history, basic concepts, central questions and preoccupations of political thought in the Arab region, while critically analyzing what it means to engage political theory comparatively. (CD)

**POL 275. American Political Thought. (3 h)**

Examines texts from the founding to the present that consider debates over the Constitution and the power of government; liberal and republican theories of citizenship; race, class and gender inequality; tensions between diversity and national identity; theories of justice; and the development of progressive, conservative, and libertarian political ideologies in the United States.

**POL 276. Modern Political Thought. (3 h)**

Examines political thought from the 19th century to the present with a focus on the relationship between ethics and politics. Topics include the nature of the good life, freedom, and the political society that makes them possible.

**POL 277. Feminist Political Thought. (3 h)**

Introduction to feminist thought and its implications for the study and practice of political theory. Topics include feminist critiques of the Western political tradition and schools of feminist political theory. Also listed as WGS 301. (CD)

**POL 278. Politics and Identity. (3 h)**

Investigation of the ways in which concepts of identity have informed political norms, structures, and practices; the myriad forms identity takes (particularly gender, sexual orientation, class, race, religion, nationality and ethnicity) drawing on examples from across the globe; and theoretical approaches proposed for engaging differences. (CD)

**POL 280. Research Methods. (3 h)**

Overview of the qualitative and quantitative methods prominent in studying political science. Attention is given to the relationships between theory, method, and findings by focusing on the need to make systematic empirical observations. P-STA 111 must be taken before or concurrently with this course.

**POL 281. Environmental Political Thought. (3 h)**

Explores the human relationship to the natural world and the implications of this relationship to political issues, such as the preservation of wilderness, industrialization, consumerism, public and private ownership, and social justice.

**POL 282. Gandhi. (3 h)**

Explores the life, political philosophy, and the method of non-violent coercion (satyagraha) of Gandhi. Students define and implement group projects designed to promote change within the context of Gandhian methodology. Service-learning course.

**POL 286. Topics in Political Science. (1-3 h)**

Intensive study of one or more topics in the discipline. May not be used to meet one of the four area requirements. May be repeated for credit. Up to 6 hours may be counted toward the major.

**POL 287. Individual Study. (2, 3 h)**

Intensive research leading to the completion of an analytical paper conducted under the direction of a faculty member. Students initiate the project and secure the permission of an appropriate instructor. May be repeated for a maximum of six hours, only three of which may count toward the major. P-POI.

**POL 288. Directed Reading. (2, 3 h)**

Concentrated reading in an area of study not otherwise available. Students initiate the project and secure the permission of an appropriate instructor. P-POI.

**POL 289. Internship in Politics. (2, 3 h)**

Field work in a public or private setting with related readings and an analytical paper under the direction of a faculty member. Students initiate the project and secure the permission of an appropriate instructor. Normally one course in an appropriate subfield is taken prior to the internship. P-POI.

**POL 300. Senior Seminar in Political Science. (4 h)**

Readings and research on selected topics. P-POL 280 and STA 111.

## Faculty

**Chair** Michaelle Browsers

**Associate Chair** Betina Cutaia Wilkinson

**Provost and Professor** Rogan Kersh

**Maya Angelou Presidential Chair and Professor** Melissa Harris-Perry

**Reynolds Professor of Latin-American Studies** Luis Roniger

**Professors** Michaelle Browsers, Neil DeVotta, John Dinan, Katy J. Harriger, Charles H. Kennedy, Wei-chin Lee, Peter M. Siavelis, Kathy B. Smith, Helga A. Welsh

**Associate Professors** Sara Bahill-Brown, Sarah Lischer, Betina Cutaia Wilkinson, Will Walldorf

**Assistant Professors** Lina Benabdallah, Sara Dahill-Brown, Andrius Galisanka

**Teaching Professor** Tom Brister

**Associate Teaching Professor** Jack Amoureux, Tom Brister

**Visiting Assistant Professor** Carolyn Coberly, Luigi Mendez, James Morone, John Lovett

## Politics and International Affairs, B.A.

### Requirements

Consists of 31 hours, of which, in all but exceptional cases, at least 21 hours must be completed at Wake Forest. Where students take politics courses abroad, they have to be in Wake Forest approved programs and/or must have been certified by the department chair. The required courses for the major include the following:

Code	Title	Hours
<b>Required Major Courses</b>		
Select at least one non-seminar course in each of the following four fields of Politics:		12
I. American Politics		
II. Comparative Politics		
III. Political Theory		
IV. International Politics		
POL 280	Research Methods *	3
POL 300	Senior Seminar in Political Science (normally taken in the senior year)	4
<b>Co-Requirements</b>		
STA 111	Elementary Probability and Statistics	4
Select no more than six hours of 100-level Introductory Courses ***		6
No more than three hours for any one or any combination of the following courses:		3
POL 287	Individual Study	
POL 288	Directed Reading	
POL 289	Internship in Politics	

\* *The methods course is a prerequisite for the senior seminar and students are expected to take the methods course prior to the end of their junior year and, in any case, prior to the senior seminar.*

\*\* *Must be completed prior to or in concurrence with POL 280.*

\*\*\* *Majors may not take the introductory courses during their senior year.*

Highly motivated students who would like to further expand or apply their study beyond the normal course of offerings can undertake internships, individual studies, or directed readings if they fulfill the minimum overall GPA requirements of 3.0.

No course taken on a pass/fail basis can count towards the major. Transfer hours toward the major are awarded on an individual case-by-case basis at the discretion of the department chair. Students who receive a score of 5 on political science Advanced Placement (AP) exams

may count the hours towards major credit. These credits may not be used to satisfy sub-field requirements. A minimum GPA of 2.0 in all courses completed in politics and international affairs at Wake Forest is required for graduation with the major.

The senior seminar provides an opportunity for majors to experience something comparable to a graduate seminar. As such, it is conducted more by discussion than by lecture and enables students to read and reflect upon advanced scholarly material. The seminar also offers students the opportunity in their final year to create a research paper of greater length and sophistication than is customary and to develop the research and writing skills appropriate to the task.

## I. American Politics

Code	Title	Hours
POL 113	American Government and Politics	3
POL 210	Topics In United States Politics and Policy	3
POL 211	Political Parties, Voters, and Elections	3
POL 212	U.S. Policymaking in the Twenty-first Century	3
POL 213	Economic Inequality and American Politics	3
POL 214	Latino/a Political Behavior	3
POL 215	Citizen and Community	3
POL 216	U.S. Social Welfare Policy	3
POL 217	Politics and the Mass Media	3
POL 218	Congress and Policymaking	3
POL 219	Political Participation	3
POL 220	The American Presidency	3
POL 221	State Politics	3
POL 222	Urban Politics	3
POL 223	African American Politics	3
POL 224	Racial and Ethnic Politics	3
POL 225	American Constitutional Law: Separation of Powers and the Federal System	3
POL 226	American Constitutional Law: Civil Rights and Liberties	3
POL 227	Politics, Law, and Courts	3
POL 228	Politics of Public Education	3
POL 229	Women, Gender, and Politics	3

## II. Comparative Politics

Code	Title	Hours
POL 114	Comparative Government and Politics	3
POL 231	Western European Politics	3
POL 232	Politics in Russia and Eastern Europe	3
POL 233	The Politics of Modern Germany	3
POL 234	United Kingdom Politics in a Global Age	3
POL 235	European Integration	3
POL 236	Government and Politics in Latin America	3
POL 237	The Comparative Politics of Welfare States	3
POL 238	Comparative Economic and Political Development	3
POL 239	State, Economy, and International Competitiveness	3
POL 240	Politics of Human Rights	3

POL 241	Contemporary India	3
POL 242	Topics in Comparative Politics	3
POL 243	Corruption	3
POL 244	Politics and Literature	3
POL 245	Ethnonationalism	3
POL 246	Politics and Policies in South Asia	3
POL 247	Islam and Politics	3
POL 248	Chinese Politics	3

## III. Political Theory

Code	Title	Hours
POL 115	Political Theory	3
POL 269	Topics in Political Theory	3
POL 270	Ethics and Agency	3
POL 271	Classical Political Thought	3
POL 272	Democratic Theory	3
POL 273	Marx, Marxism and Post-Marxism	3
POL 274	Arab and Islamic Political Thought	3
POL 275	American Political Thought	3
POL 276	Modern Political Thought	3
POL 277	Feminist Political Thought	3
POL 278	Politics and Identity	3
POL 281	Environmental Political Thought	3

## IV. International Politics

Code	Title	Hours
POL 116	International Politics	3
POL 250	Afghanistan, Pakistan, Iraq and U.S. Policy since 2001	3
POL 251	Politics of Forced Migration	3
POL 252	Topics in International Politics	3
POL 253	International Political Economy	3
POL 254	U.S. Foreign Policy	3
POL 255	Terrorism and Asymmetric Conflict	3
POL 256	International Security	3
POL 257	Politics of International Development	3
POL 258	International Relations of South Asia	3
POL 259	Palestine and the Arab-Israeli Conflict	3
POL 260	United States and East Asia	3
POL 261	International Law	3
POL 262	International Organizations	3
POL 263	U.S. Foreign Policy in the Middle East	3
POL 264	Moral Dilemmas in International Politics	3
POL 266	Modern Civil Wars	3
POL 267	Intelligence and International Politics	3
POL 268	International Conflict Resolution	3

## Honors

Students who are interested in the requirements for honors in the major should consult the honors guidelines, which are available at [www.wfu.edu/politics](http://www.wfu.edu/politics). Students who meet these requirements will graduate with "Honors in Politics and International Affairs."



# Politics and International Affairs, Minor

## Requirements

Consists of 18 hours. Fifteen of the hours must be taken at Wake Forest.

Code	Title	Hours
Select no more than six hours of 100-level Introductory Courses *		6
Select no more than three hours of any one or any combination of the following courses:		3
POL 287	Individual Study	
POL 288	Directed Reading	
POL 289	Internship in Politics	

\* Minors are not allowed to take 100-level courses in their senior year.

Highly motivated students who would like to further expand or apply their study beyond the normal course of offerings can undertake internships, individual studies, or Directed readings if they fulfill the minimum GPA requirements of 3.0.

No course taken on a pass/fail basis can count towards the minor. Transfer hours toward the minor are awarded on an individual case-by-case basis at the discretion of the chair. A minimum GPA of 2.0 in all courses completed in politics and international affairs at Wake Forest is required for graduation with the minor.

## Psychology (PSY)

The psychology department's goal is to provide majors with broad exposure to basic areas of psychology, along with an in-depth understanding of the methods by which psychological research is conducted. Regardless of whether your ultimate career goal is to become an applied psychologist (e.g., clinical psychologist, counselor, social worker, or consultant), to conduct behavioral research, to become a college professor, or to enter another profession altogether (e.g., law, business, medicine), a psychology major can be useful. This is because it provides in-depth knowledge about human thought, emotion, and behavior, which is

- relevant to any career; and
- through learning how psychologists research human thought, emotion, and behavior,
- students develop intellectual skills that allow them to generate and evaluate knowledge in many areas, including but not limited to psychology.

Thus, the Wake Forest psychology department aims to provide a rigorous and stimulating undergraduate education in both content and methods of psychology. Our department, like most undergraduate liberal arts departments, emphasizes research over applied work and research is a central component of many courses. A research emphasis in an undergraduate program provides the best preparation for applied graduate work as well as a strong foundation for a wide array of jobs.

PSY 151 is a prerequisite to all courses of a higher number. Courses numbered below 151 do not count toward Division IV requirements or toward the major in psychology. PSY 310, PSY 311, PSY 312, or special permission of the instructor is prerequisite for some 300-level courses.

See individual course descriptions for specific information. A minimum GPA of 2.0 or higher in psychology courses is required to graduate with a major or minor in psychology.

## Contact Information

Department of Psychology (<http://college.wfu.edu/psychology/>)  
Greene Hall 415, Box 7778  
Phone 336-758-5424

## Programs

### Major

- Psychology, B.A.

### Minor

- Psychology, Minor

## Courses

### Psychology (PSY)

#### PSY 100. Learning to Learn. (3 h)

A course designed for first and second year students who wish to improve their academic performance through the application of learning, study, memory, and time management strategies. By permission of the instructor only. Pass/Fail only.

#### PSY 151. Introductory Psychology. (3 h)

A systematic survey of psychology as the scientific study of behavior. Prerequisite to all courses of a higher number. (D)

#### PSY 241. Developmental Psychology. (3 h)

Surveys physical, emotional, cognitive, and social development in humans from conception to death. P-PSY 151. (D)

#### PSY 243. Biopsychology. (3 h)

An introduction to the biological substrates and processes that govern behavior. P- PSY 151. (D)

#### PSY 245. Survey of Abnormal Behavior. (3 h)

Study of problem behaviors such as depression, alcoholism, antisocial personality, the schizophrenias, and pathogenic personality patterns, with emphasis on causes, prevention, and the relationships of these disorders to normal lifestyles. P-PSY 151. (D)

#### PSY 248. Cognitive Psychology. (3 h)

Surveys theory and research on cognitive processes. Emphasizes memory, attention, visual and auditory information processing, concept identification/formation, and language. P- PSY 151. (D)

#### PSY 255. Personality. (3 h)

Survey of theory and research on the structure and function of human personality, with attention to the relationship to cognition, emotion, motivation, and behavior. P-PSY 151. (D)

#### PSY 260. Social Psychology. (3 h)

A survey of the field, including theories of social behavior, interpersonal attraction, attitudes and attitude change, and group behavior. P-PSY 151. (D)

#### PSY 265. Human Sexuality. (3 h)

Explores the psychological and physiological aspects of human sexuality, with attention to sexual mores, sexual deviances, sexual dysfunction, and sex-related roles. P-PSY 151. (D)



**PSY 268. Industrial/Organization Psychology. (3 h)**

Psychological principles and methods applied to problems commonly encountered in business and industry. P-PSY 151. (D)

**PSY 270. Topics in Psychology. (1.5 h)**

Focused in-depth review of current theory and research on a selected topic in the field. P-PSY 151.

**PSY 275. Internship in Psychology. (0-3 h)**

Field work in pre-approved settings under the supervision of qualified professionals. Related readings and a term paper required. Students must apply and secure permission from designated Psychology Department faculty member who will assign final grade. Students desiring to propose internship that has not been pre-approved must do so at least 1 month before the proposed start of the internship, following standard department procedures. Internships will not be approved for credit after the internship has already begun. Credits cannot count toward minimum required for major or minor. Pass/Fail only. Open only to declared psychology majors or minors with a minimum GPA of 2.75. Maximum 3 hours. P-PSY 310 or 311 and Permission of the Department (POD).

**PSY 278. Psychology of Memory. (3 h)**

A study of specialized knowledge regarding the most relevant aspects of memory function and important investigative techniques in this field. (D)

**PSY 280. Directed Study. (1-3 h)**

Student research performed under faculty supervision. P-PSY 151 and approval of faculty member prior to registration.

**PSY 310. Methods in Psychological Research. (3 h)**

Introduces statistics and research design for students minoring in psychology. P-PSY 151 (D, QR)

**PSY 311. Research Methods I. (4 h)**

Design and statistical analysis of correlational research. Lab-twice weekly. P-At least one course in addition to PSY 151. (QR, D)

**PSY 312. Research Methods II. (4 h)**

Design and statistical analysis of experimental methods. Lab-twice weekly. P-PSY 311. (QR)

**PSY 313. History and Systems of Psychology. (3 h)**

The development of psychological thought and research from ancient Greece to the present. Normally offered only fall semester. Senior major standing only. P-Two psychology courses beyond PSY 151 or POI. (D)

**PSY 314. Special Topics in Social Psychology. (3 h)**

Theoretical and empirical examination of specialized areas within social psychology. May be repeated for credit if topic varies. P-PSY 151. (D)

**PSY 315. Special Topics in Personality Psychology. (3 h)**

Theoretical and empirical examination of specialized areas within personality psychology. May be repeated for credit if topic varies. P-PSY 151. (D)

**PSY 316. Special Topics in Developmental Psychology. (3 h)**

Theoretical and empirical examination of specialized areas within developmental psychology. May be repeated for credit if topic varies. P-PSY 151. (D)

**PSY 317. Special Topics in Experimental Psychology. (3 h)**

Theoretical and empirical examination of specialized areas within experimental psychology. May be repeated for credit if topic varies. P-PSY 151. (D)

**PSY 320. Physiological Psychology. (3 h)**

Provides an in-depth examination of the nervous system and the physiological processes that underlie sensation, motor control, thinking, and emotion. P-PSY 310 or 311 or POI.

**PSY 322. Psychopharmacology. (3 h)**

A survey of the influences of a wide range of psychoactive drugs, both legal and illegal, on human physiology, cognition, and behavior. P-PSY 151. (D)

**PSY 323. Animal Behavior. (3 h)**

A survey of laboratory and field research on animal behavior. P-PSY 310 or 311 or POI.

**PSY 326. Learning Theory and Research. (3 h)**

Theory and current research in learning, with emphasis on applications of learning principles for behavior modification and comparisons across species. P-PSY 310 or 311. P or C-PSY 312.

**PSY 329. Perception. (3 h)**

Survey of theory and research findings on various sensory systems (vision, hearing, touch, taste). P-310 or 311.

**PSY 331. Research in Cognitive Psychology. (3 h)**

In-depth examination of research in a selected area of cognitive psychology such as memory, attention, or executive function. Research projects required. P-PSY 310 or 311. P or C-PSY 312.

**PSY 333. Motivation of Behavior. (3 h)**

Surveys basic motivational concepts and related evidence. P-PSY 310 or 311. P or C-PSY 312.

**PSY 338. Emotion. (3 h)**

Survey of theory methods and research in the area of emotion. Developmental, cultural, social-psychological, physiological, personality, and clinical perspectives on emotions are given. P-PSY 310 or 311.

**PSY 341. Research in Developmental Psychology. (3 h)**

Methodological issues and selected research in developmental psychology. Research projects required. P-PSY 310 or 311. P or C-PSY 312.

**PSY 344. Abnormal Psychology. (3 h)**

Descriptive analysis of the major types of abnormal behavior with attention to organic, psychological, and cultural causes and major modes of therapy. Offered in the summer. P-PSY 151. (D)

**PSY 346. Psychological Disorders of Childhood. (3 h)**

Survey of problems including conduct disorders, attention deficits disorders, depression, and autism. Emphasis on causes, prevention, treatment, and the relationships of disorders to normal child development and family life. P-PSY 245 or 344 or POI. (D)

**PSY 348. Clinical Neuroscience. (3 h)**

Surveys connections between abnormal neurological processes and clinical abnormalities. This implies already having an understanding of normal brain function and anatomy. P-PSY 243 or PSY 320 or PSY 322.

**PSY 351. Personality Research. (3 h)**

The application of a variety of research procedures to the study of human personality. Research projects required. P-PSY 310 or 311.

**PSY 355. Research in Social Psychology. (3 h)**

Methodological issues and selected research in the study of the human as a social animal. Research projects required. P-PSY 310 or 311.

**PSY 357. Cross-Cultural Psychology. (3 h)**

An examination of differences in psychological processes (e.g., attitudes, perception, mental health, organizational behavior) associated with cultural variation. P-PSY 151. (CD, D)

**PSY 359. Psychology of Gender. (3 h)**

An exploration of the psychological similarities and differences between human males and females, including consideration of social, cognitive, motivational, biological, and developmental determinants of behavior. P-PSY 151. (CD, D)

**PSY 362. Psychological Testing. (3 h)**

An overview of the nature of psychological assessment, emphasizing the construction and evaluation of psychological tests and the data analytic techniques underlying those processes. P-PSY 310 or 311.

**PSY 363. Survey of Clinical Psychology. (3 h)**

Overview of the field of clinical psychology. P-Psychology senior majors only or POI. (D)

**PSY 364. Stereotyping and Prejudice. (3 h)**

Theoretical and empirical examination of the processes underlying prejudice, discrimination and racism. P-PSY 151. (CD, D)

**PSY 367. Parent-Child Relationships. (3 h)**

Surveys characteristics of parent-child relationships and issues of parenting as related to a variety of factors, including developmental changes of parent and child, family structure, and sociocultural context. P-PSY 151. (D)

**PSY 374. Research in Judgment and Decision Making. (3 h)**

A theoretical and empirical examination of how people make decisions and judgments about their lives and the world, and how these processes can be improved. P-PSY 310 or 311.

**PSY 381. Honors Seminar. (3 h)**

Seminar on selected problems in psychology. Intended primarily for students in the departmental honors program. P-PSY 311 and POI.

**PSY 383. Honors Research. (3 h)**

Seminar in selected issues in research design, followed by independent empirical research under the supervision of a member of the departmental faculty. P-PSY 311 and POI.

**PSY 392. Contemporary Issues in Psychology. (1.5 h)**

Seminar treatment of current theory and research in several areas of psychology. Required for senior majors. P-PSY 312, and senior major standing.

## Faculty

**Chair** Eric R. Stone

**William L. Poteat Professor of Psychology** Deborah L. Best

**Hultquist Family Professor of Psychology** William W. Fleeson

**Professors** Terry D. Blumenthal, Christy M. Buchanan, Dale Dagenbach, R. Michael Furr, Lisa Kiang, John V. Petrocelli, Wayne E. Pratt, Eric R. Stone

**Research Professor** Catherine E. Seta

**Associate Professors** Eranda R. Jayawickreme, Janine M. Jennings, Lara K. Kammrath, E.J. Masicampo, Christian E. Waugh

**Assistant Professors** Shannon T. Brady, N. Keita Christophe, Veronica T. Cole, S. Mason Garrison, Anthony W. Sali

**Associate Teaching Professors** Heath L. Greene, Melissa Maffeo

**Adjunct Associate Professor** Alan S. Cameron

**Adjunct Assistant Professors** Kate R. Allman, Phillip G. Batten, Meghan Gangel, Ashley L. Heffner, Leigh D. Watson

**Adjunct Instructor** Stephen W. Davis

**Visiting Assistant Professor** Meghan Gangel

## Psychology, B.A. Requirements

It is recommended that students who are considering psychology as a major take:

Code	Title	Hours
PSY 151	Introductory Psychology (in their First year) *	3
PSY 311	Research Methods I (no later than their Junior year)	4

\* *It is recommended that students take at least one course in addition to PSY 151 before taking PSY 311.*

At the time the major is elected, students must have completed at least one psychology course (includes AP or IB credit for PSY 151, but excludes PSY 100), and must have a minimum GPA of 2.0 or higher in all graded psychology courses. The major in psychology requires the completion of a minimum of 32 hours in psychology, including:

Code	Title	Hours
PSY 151	Introductory Psychology	3
PSY 311	Research Methods I	4
PSY 312	Research Methods II	4
PSY 392	Contemporary Issues in Psychology	1.5

Select at least one course from each of the following groups:

Group A
Group B

No more than 3 hours of PSY 280 may be counted toward the 32 hours required for the major, and a maximum of 5 hours of PSY 280 may be counted toward the graduation requirement of 120 hours. A maximum of 3 hours of internship credit can be taken.

No more than 50 hours in psychology may be counted toward the graduation requirements of 120 hours.

No more than six psychology credit hours will be accepted for courses taken at other schools or in other WFU departments, and a maximum of three of those six hours may come from online courses. Cross-listed courses taught by another department at Wake Forest will be counted toward the 32 hours required for the major. The cross-listed courses are: BEM 211, EDU 311, HES 312, and LIN 330. A student may not take both BEM 211 and PSY 268 for psychology credit. A maximum of nine hours of transfer credit and cross-listed courses taught by another department can be counted towards the major if 35 or more hours in the major are taken. AP or IB credit may be accepted for PSY 151, but other courses taken at community colleges or college courses taught on high school campuses taken after enrollment at Wake Forest are not accepted for transfer credit. With the exception of PSY 151, specific courses required for the major, including A and B group courses, must be taken at Wake Forest. The guidelines regarding transfer and credit approval may be modified in rare and special circumstances at the discretion of the psychology department chair.

## Group A

Code	Title	Hours
PSY 320	Physiological Psychology	3
PSY 326	Learning Theory and Research	3
PSY 329	Perception	3
PSY 331	Research in Cognitive Psychology	3
PSY 333	Motivation of Behavior	3
PSY 338	Emotion	3

## Group B

Code	Title	Hours
PSY 341	Research in Developmental Psychology	3
PSY 351	Personality Research	3
PSY 355	Research in Social Psychology	3
PSY 362	Psychological Testing	3
PSY 374	Research in Judgment and Decision Making	3

## Honors

Highly qualified majors are invited by the department to participate in the honors program in psychology. Students must take PSY 311 no later than fall of the junior year in order to be considered for the honors program. To be graduated with the designation "Honors in Psychology," the student must:

- complete satisfactorily a special sequence of courses (PSY 381, PSY 383)
- pass an oral or written examination
- earn an overall GPA of 3.2 with an average of 3.5 on work in psychology

In addition, the honors student normally has a non-credit research apprenticeship with a faculty member. For more detailed information, members of the departmental faculty should be consulted. (Students satisfactorily completing PSY 383 are not required to complete PSY 392.)

## Psychology, Minor

### Requirements

Requires 15 hours in psychology including:

Code	Title	Hours
PSY 151	Introductory Psychology	3
PSY 310 or PSY 311	Methods in Psychological Research <sup>*</sup> Research Methods I	3
Select at least two of the following:		6
PSY 241	Developmental Psychology	
PSY 243	Biopsychology	
PSY 245	Survey of Abnormal Behavior	
PSY 248	Cognitive Psychology	
PSY 255	Personality	
PSY 260	Social Psychology	
PSY 268	Industrial/Organization Psychology	
PSY 320	Physiological Psychology	
PSY 323	Animal Behavior	

PSY 326	Learning Theory and Research	
PSY 329	Perception	
PSY 331	Research in Cognitive Psychology	
PSY 333	Motivation of Behavior	
PSY 338	Emotion	
PSY 362	Psychological Testing	
PSY 374	Research in Judgment and Decision Making	
Select one other PSY course		3

<sup>\*</sup> The PSY 310 or PSY 311 requirement may be waived if the student takes one set of the following methods courses: BEM 201 and BEM 202, BEM 201 and FIN 203, ECN 209, HES 262, SOC 271 and SOC 272. If the psychology statistics course requirement is waived, a student will then be required to take an additional course.

If the psychology statistics course requirement is waived, a student will then be required to take an additional course. No more than six hours will be accepted for courses taken at other schools and cross-listed courses taught by another Wake Forest department to be counted toward the 15 hours required for the minor. A maximum of three of those six hours may come from online courses. The cross-listed courses that may be accepted are: BEM 211, EDU 311, HES 312, LIN 330. A student may not take both BEM 211 and PSY 268 for psychology credit.

## Religions, Study of (REL)

The study of religion is a way of organizing academic inquiry into how human beings and human cultures express and experience their religious needs, beliefs, and values. It involves the study of both specific religious traditions and the general nature of religion as a phenomenon of human life. Using cross-cultural and interdisciplinary approaches, religious studies investigates and interprets systems of religious belief, the history of religious traditions, the function of religion in society, and forms of religious expression such as ritual, symbols, sacred narrative, scripture, practices, theological and philosophical reflection. Students of religious studies, whether adherents of a religion or of no religion, gain tools to understand, compare, and engage the phenomenon of religion and its role in human life and culture.

## Contact Information

Department for the Study of Religions (<http://college.wfu.edu/religion/>)  
Divinity and Religious Studies Building 118, Box 7212  
Phone 336-758-4830

## Programs Major

- Religious Studies, B.A.

## Minor

- Religious Studies, Minor

## Courses

### Near Eastern Languages and Literature (NLL)

#### NLL 111. Elementary Hebrew. (3 h)

A course for beginners in the classical Hebrew of the Bible, with emphasis on the basic principles of grammar and the reading of biblical texts. Both semesters must be completed.

#### NLL 112. Elementary Hebrew. (3 h)

A course for beginners in the classical Hebrew of the Bible, with emphasis on the basic principles of grammar and the reading of biblical texts. Both semesters must be completed.

#### NLL 153. Intermediate Hebrew. (3 h)

Intensive work in Hebrew grammar and syntax. Based upon the reading of selected texts. Readings emphasize post-biblical Hebrew. P-NLL 111 and NLL 112 or the equivalent.

#### NLL 211. Hebrew Literature. (3 h)

The reading and discussion of significant Biblical Hebrew texts. P-NLL 153.

#### NLL 212. Hebrew Literature II. (3 h)

The reading and discussion of significant Biblical and post-Biblical texts. On request. P-NLL 153.

#### NLL 213. Studies in Modern Hebrew. (3 h)

Intended for students with a working knowledge of Classical Hebrew, this course will explore some of the primary differences between the linguistic groups and will introduce students to the formal study of Modern Hebrew. POI required.

#### NLL 301. Introduction to Semitic Languages. (3 h)

A comparative study of the history and structure of the languages of the Semitic family. On request.

#### NLL 302. Akkadian I. (3 h)

An analysis of the phonology, morphology, and syntax of the East Semitic languages of the ancient Near East as they relate to the larger family of Semitic languages. On request.

#### NLL 303. Akkadian II. (3 h)

A continuation of Akkadian I (NLL 302) with further emphasis on building expertise in vocabulary and syntax through the reading of texts from the Middle Babylonian period. On request.

#### NLL 310. Intermediate Readings in Classical Hebrew. (1 h)

Analysis of selected texts designed to expand the student's facility with Hebrew. May be repeated for credit.

#### NLL 311. Aramaic. (3 h)

The principles of Aramaic morphology, grammar, and syntax based on readings from the Bible and other ancient Near Eastern texts. P-NLL 112 or POI. On request.

#### NLL 314. Readings from the Rabbis. (3 h)

Selected texts in Hebrew and Aramaic from the Mishna and Midrash. On request. P-NLL 211 or POI.

#### NLL 321. Introduction to Middle Egyptian I. (3 h)

The phonology, morphology, and grammar of Middle Egyptian. On request.

#### NLL 322. Introduction to Middle Egyptian II. (3 h)

The phonology, morphology, and grammar of Middle Egyptian. On request.

## Religions, Study of (REL)

#### REL 101. Introduction to Religion. (3 h)

A study of meaning and value as expressed in religious thought, experience, and practice. Focus varies with instructor. (D)

#### REL 102. Introduction to the Bible. (3 h)

A study of the forms, settings, contents, and themes of the Old and New Testaments. Focus varies with instructor. (D)

#### REL 103A. Introduction to Christian Traditions. (3 h)

Study of Christian experience, thought, and practice. Focus varies with instructor. (D)

#### REL 103B. Introduction to Latin American Christian Traditions. (3 h)

Study of the origins, practices, experiences, and thought of Christian traditions in Latin America. Focus varies with instructor. (CD, D)

#### REL 104A. Introduction to Asian Religions. (3 h)

Study of the thought and practices within the major religious traditions of South, Southeast, and East Asia. Focus, region, and traditions may vary with instructor. (CD, D)

#### REL 104B. Introduction to South Asian Religions. (3 h)

Study of the thought and practices within the major religious traditions of South Asia (Indian subcontinent). Focus and traditions may vary with instructor. (CD, D)

#### REL 104C. Introduction to East Asian Religions. (3 h)

Study of the thought and practices within the major religious traditions of East Asia (China, Korea, and Japan). Focus, regions, and traditions may vary with instructor. (CD, D)

#### REL 105. Monotheisms: Judaism, Christianity, and Islam. (3 h)

Examines the history, thought, and practices of these three monotheistic traditions in global perspective. Focus varies by instructor. (D)

#### REL 106. The Bible in America. (3 h)

Critical examination of the ways in which various individuals and groups have interpreted, appropriated and used the Bible in America. Focus varies with instructor. (D)

#### REL 107. Introduction to African Religions. (3 h)

A study of the basic features of African religious systems and institutions, with focus on the cultural, economic and political factors that have informed global preservations of an African worldview. (CD, D)

#### REL 108. Introduction to Hindu Traditions. (3 h)

An examination of historical, political, and cultural developments of various traditions placed under the heading "Hinduism" in South Asia and abroad, with focus on ritual, myths, literature, and imagery that reflect their diverse beliefs and practices. (CD, D)

#### REL 109. Introduction to Buddhist Traditions. (3 h)

A study of the thought, history, and practices of Buddhist traditions in Asia. (CD, D)

#### REL 110. Introduction to Islamic Traditions. (3 h)

Examination of the origins and development of Islam. Attention is given to the formation of Islamic faith and practice. (CD, D)

#### REL 111. American Indian and First People's Traditions. (3 h)

Multi-disciplinary study of thought and practice in past and present American Indian and other indigenous communities. (CD, D)

#### REL 113. Introduction to Jewish Traditions. (3 h)

Examines the history, thought, and practices of Jewish traditions in global perspective. (D)



**REL 200. Approaches to the Study of Religion. (3 h)**

Explores the history of and methodological resources for the study of religion. Focus may vary with instructor, but the emphasis is on the ways religion has been defined, studied, and interpreted over the last several centuries.

**REL 210. Jerusalem in History and Tradition. (3 h)**

An examination of the ways meaning and religious significance have been imparted to Jerusalem far beyond its significance in world history.

**REL 230. Religion and the U.S. Constitution. (3 h)**

Introduces the complex relationship between religion and the U.S. government through an in-depth analysis of the nation's founding documents and the subsequent series of First Amendment church-state decisions rendered by the United States Supreme Court.

**REL 242. Sex, Death and Salvation. (3 h)**

Examines how various religious traditions, past and present, have understood the overlapping notions of sexuality, human destiny, and the afterlife. (CD)

**REL 244. Religion, Terrorism, and Violence. (3 h)**

Investigates definitions of terrorism and examines religious motivations, justifications and legitimization of the use of violence in a number of belief systems. (CD)

**REL 246. Religion and Race. (3 h)**

Explores the relationship between religion and race, two categories that describe identity and that intersect in the lives of individuals and groups. Focus varies with instructor. (CD)

**REL 261. Foundations of Traditional Judaism. (1.5 h)**

A study of rabbinic and medieval Judaism, emphasizing the post-biblical codification of Jewish thought in the Mishnah, Talmud, and Midrash.

**REL 265. Culture and Religion in Contemporary Native America. (3 h)**

Interdisciplinary survey of American Indian culture, including the arts and literature, religions, and historical changes. Emphasizes the impact of the Conquista, encounters with Northern Atlantic societies, and contemporary developments. Also listed as AES 265. (CD)

**REL 266. Religious Sects and Cults. (3 h)**

Examines historical and contemporary issues in the study of new religious movements by analyzing media coverage of "cults" and investigating the history of specific groups.

**REL 267. Religion and Popular Culture. (3 h)**

Examination of the relationship between religion and popular culture, focusing on a variety of popular culture forms and interpretive skills. Focus varies with instructor.

**REL 280. God, Gods, and the Ultimate. (3 h)**

Comparative study of the way religious traditions—both Eastern and Western—conceptualize "Ultimate Reality" or "the Absolute" (e.g., God, Allah, Brahman, the Dao, Emptiness). Particular attention will be given to the historical evolution and the socio-religious implications of the various conceptualizations studied. (CD)

**REL 286. Directed Reading. (1-3 h)**

A project in an area of study not otherwise available in the department. May be repeated for credit. (Group I-III with department approval) P-POI.

**REL 287. Directed Reading. (1-3 h)**

A project in an area of study not otherwise available in the department. May be repeated for credit. (Group I-III with department approval) P-POI.

**REL 288. Field Program in Religion and Public Engagement. (1-3 h)**

Integrated study of major themes in religion and public engagement carried out in partnership with one or more communities off campus. May be repeated for credit. Focus varies with instructor. P-POI. On request.

**REL 290. Special Topics in Religion. (1.5-3 h)**

Religion topics of special interest. Group I-III with department approval. May be repeated for credit if topic varies.

**REL 291. Crossing Divides: Dialogues Across Faith and Culture. (1.5-3 h)**

Examines methods and practices of inter-religious dialogue with special attention to contemporary challenges. Focus varies with instructor. (CD)

**REL 292. Crossing Divides: Crossing Back: Peacemaking. (1.5-3 h)**

Examines methods and practices of inter-religious peacemaking with special attention to contemporary challenges. Focus varies with instructor. (CD)

**REL 304. Myth, Ritual & Symbolism. (3 h)**

Explores how people envision and manipulate the supernatural in cross-cultural perspective. Emphasizes functional aspects of religious beliefs and practices. Also listed as ANT 336. (CD) P-ANT 111 or 112 or 113 or 114 or POI.

**REL 305. Ethnography of Religion. (3 h)**

Study of theory and method in ethnography of religion where students closely read ethnographies from a variety of cultures and discuss the practical, methodological and ethical issues related to ethnography. Course culminates with students researching and writing their own ethnographies. (CD)

**REL 306. Ritual Studies. (3 h)**

Introduction to the various methods and theories employed in the field of ritual studies, while examining comparative rituals and ritualized practices from around the world.

**REL 307. Magic, Science and Religion. (3 h)**

Explores concepts of magic, science and religion that emerged in Western thought and culture from late antiquity through the European Enlightenment and analyzes connections between religious traditions and Western, Modern Science.

**REL 308. Sacred Scripture in the Traditions of Abraham. (3 h)**

A comparative study of sacred texts in Judaism, Christianity, and Islam with attention to the issues of authority, function and interpretation.

**REL 310. The Prophetic Literature. (3 h)**

An examination of the development and theological contents of the literary products of Israel's prophetic movement.

**REL 312. The Critical Study of the Pentateuch. (3 h)**

A study of the five traditional books of Moses (the Torah) and the various lines of analysis that modern Biblical critics have used to interpret their composition and role in the development of Israelite theological thought.

**REL 313. Near Eastern Archeology. (3 h)**

A survey of 20th century archeology in the Near East with attention to its importance for Biblical studies.

**REL 315. Field Research in Biblical Archeology. (3 h)**

A study of the religion and culture of the ancient Near East through the excavation and interpretation of an ancient site.

**REL 316. Field Research in Biblical Archeology. (3 h)**

A study of the religion and culture of the ancient Near East through the excavation and interpretation of an ancient site.

**REL 317. Wisdom Literature. (3 h)**

An examination of the development, literary characteristics, and theological contents of the works of ancient Israel's sages.



**REL 318. Feminist and Contemporary Interpretations of the New Testament. (3 h)**

A study of feminist and contemporary approaches to the New Testament in light of the history of New Testament interpretation and a range of contemporary concerns and interpretive contexts.

**REL 320. The Search for Jesus. (3 h)**

A study of issues, assumptions, evidence, and debate that shapes the continuing quest for the historical Jesus.

**REL 323. Jesus Traditions. (3 h)**

Examines ancient Christian and other religious representations of Jesus in historical, social, cultural, and theological context.

**REL 324. Early Christian Literature. (3 h)**

An examination of various literatures and perspectives of the first three centuries of the Christian movement.

**REL 328. Jewish-Christian Relations and the New Testament. (3 h)**

Study of Jewish-Christian relations and selected writings of the New Testament in the historical, social, religious and political contexts of ancient Judaism and emerging Christianity. Focus varies with instructor.

**REL 329. Chinese Medicine. (3 h)**

An interdisciplinary exploration and analysis of Chinese medicine, its fundamental theories, and its range of health-oriented and religious applications. (CD)

**REL 330. Pope, Jefferson and Imam: A Study in Comparative Ethics. (3 h)**

A comparative study of the moral values and socio-ethical positions in the major religious traditions of the world, with particular focus on their various methods of reasoning and sources of authority.

**REL 331. Religion and Law. (3 h)**

A study of religion and law as distinct yet interdependent spheres that influence cultural negotiations about authority, power, identity and the regulation of society. Geographic and tradition-specific focus may vary with instructor.

**REL 332. Religion and Public Engagement. (3 h)**

Examines the interface between religious communities and the public sphere, and the potential for social change in contemporary global and local contexts through a range of readings, guest lectures, field trips, and films. Traditions and emphasis may vary with instructor.

**REL 335. Religious Ethics and the Problem of War. (3 h)**

An examination of the causes and characteristics of war, various religious responses to it, and approaches to peacemaking, with attention to selected contemporary issues.

**REL 336. Religious Traditions and Human Rights. (3 h)**

A study of relationships and tensions between religious traditions and human rights, with illustrations from historical and contemporary issues and movements.

**REL 338. Religion, Ethics, and Politics. (3 h)**

An examination of ethical issues in religion and politics using materials from a variety of sources and historical periods.

**REL 339. Religion, Power, and Society in Modern Africa. (3 h)**

An interdisciplinary study of the growth transformations of Africa's major religious traditions (Christianity, Islam, and the indigenous religions), and of their relations with secular social changes. (CD)

**REL 341. Religion and Ecology. (3 h)**

Cross-cultural examination of the relationships among human beings, their diverse cultures, habitats, and religions, including social and political understandings of the environment.

**REL 342. Religious Intolerance in the U.S. (3 h)**

Study of the various manifestations of religious intolerance in the United States from the colonial period until the present.

**REL 343. Religion, Culture, and the Body. (3 h)**

A cross-cultural, multi-disciplinary-exploration of the body as a malleable locus of contested ideals that informs personal, social, and religious identity formation. (CD)

**REL 344. Religion, Poverty, and Social Entrepreneurship. (3 h)**

Interdisciplinary study of major themes in religion, poverty reduction, and social entrepreneurship. Focus and community emphasis may vary with instructor. Also listed as ENT 322.

**REL 345. The African-American Religious Experience. (3 h)**

Exploration of the religious dimensions of African-American life from its African antecedents to contemporary figures and movements. (CD)

**REL 346. Religious Utopias and the American Experience. (3 h)**

Surveys a range of such 18th- and 19th-century utopian communities, including Moravians, Rappites, Shakers, and the Oneida and Amana colonies. Also listed as HST 381.

**REL 347. Religion, Gender, & Sexuality. (3 h)**

Explores how "religion" regulates and normalizes gender and sexuality.

**REL 348. Race, Memory, and Identity. (3 h)**

Explores the collective memory and identity of American-Indian and African-American communities and their response to historical trauma in their cultural imagination, spirituality, and political and social activism. Also listed as HST 378. (CD)

**REL 349. Asian Meditation Practices. (3 h)**

Introduces and examines theoretical and practical aspects of various forms of Eastern meditation (concentration, mindfulness, Zen, visualization, and moving energy work) from both practitioner and modern scientific perspectives. (CD)

**REL 351. Sociology of Religion. (3 h)**

Introduction to the sociological analysis of religion, including religious beliefs and experiences, the cultural context of religion, varieties of religious organization, religious change and social change. Also listed as Sociology 301.

**REL 355. Jewish Identities: Religion, Race, and Rights. (3 h)**

Examines how evolving definitions of race, religion, and Jewishness have correlated and conflicted in varied and sometimes surprising ways and how these shifts have been tied to legal rights and social privileges. (CD)

**REL 356. Faces of Modern Judaism. (3 h)**

Examines contemporary expressions of Judaism and its historical roots. (CD)

**REL 357. Jews in the United States. (3 h)**

Examines Jewish American histories, experiences, and identities and their impact on American society as a whole.

**REL 359. Hinduism in America. (3 h)**

A study of the meanings, values, and practices associated with the religions of Hinduism in dialogue with the dominant culture of America. (CD)

**REL 360. Hindus, Muslims, & Sikhs in North America. (3 h)**

Examines the racialization of Hinduism, Islam, and Sikhism in North America using a postcolonial and intersectional approach. (CD)

**REL 361. Topics in Buddhism. (3 h)**

Variable topics in Buddhist history, thought, and/or practice. May be repeated for credit if topic varies. (CD)

**REL 362. Topics in Islam. (3 h)**

Variable topics in Islamic history, thought, and/or practice. May be repeated for credit if topic varies. (CD)

**REL 363. The Religions of Japan. (3 h)**

A study of the central religious traditions of Japan from pre-history to the present, including Shinto, Buddhism, Zen Buddhism, Christianity, and Confucianism. (CD)

**REL 364. Topics in U.S. Religious History. (1.5-3 h)**

Variable topics in U.S. religious history, thought, and/or practice. May be repeated for credit if topic varies.

**REL 365. History of Religions in America. (3 h)**

A study of American religions from colonial times until the present.

**REL 367. Christian Mysticism. (3 h)**

Study of Christian mysticism and contemplation (spirit possession, visions, dreams, and meditation) and their relation to contemporary issues.

**REL 368. Protestant and Catholic Reformations. (3 h)**

A study of the origin and development of Reformation theology and ecclesiology.

**REL 369. Radical Christian Movements. (3 h)**

A study of selected radical movements in the Christian tradition and their relation to contemporary issues.

**REL 372. History of Christian Thought. (3 h)**

A study of recurring patterns in Christian thought across time and cultures and some of the implications of those patterns in representative ancient and modern Christian figures.

**REL 373. Special Topics in African-American Religious Traditions. (3 h)**

Variable topics in African-American religious traditions. May be repeatable for credit if topic varies. (CD)

**REL 374. Black Messiahs and Uncle Toms. (3 h)**

Examines the cultural and religious history of black leadership in the United States. (CD)

**REL 375. Race, Myth, and the American Imagination. (3 h)**

A study of myth and mythology in relation to the racial imaginary in America. (CD)

**REL 376. Race, Religion, and Film. (3 h)**

Examines past and contemporary filmmakers who couple religious themes with racial concerns. (CD)

**REL 378. Latin American Liberation Theologies. (3 h)**

Historical, contextual, and theoretical survey of various forms of Latin American liberation theology, a school of Christian thought that both critiques systems of oppression and offers proposals for a more just and peaceful future.

**REL 381. Zen Buddhism. (3 h)**

Examines the origins and development of Zen Buddhism from China (Ch'an) to Japan and contemporary America. Attention is given to Zen doctrine and practice in the context of the broader Buddhist tradition. (CD)

**REL 382. Religion and Culture in China. (3 h)**

A thematic study of Chinese religious culture focusing on history, ritual, scripture, and popular practice. Additional topics will include cosmology, ancestor veneration, shamanism, divination, and the role of women. (CD)

**REL 383. The Quran and the Prophet. (3 h)**

Examines the history, content, and main approaches to the sacred book of Islam. Explores the influence and interaction between the holy word and its transmitter the Prophet Muhammad. (CD)

**REL 384. Islam and Law: Varieties in Interpretation and Expression. (3 h)**

Explores main tenets of the Islamic law (Shari'ah) and how this law has been applied in past and present Islamic societies. Looks at legal issues through the lens of gender, ethics, non-Muslim minorities, rights, and duties. (CD)

**REL 385. Topics in South Asian Religions. (3 h)**

Variable topics in the religions of South Asia. May be repeated for credit if topic varies. (CD)

**REL 386. Indian Epics. (3 h)**

Examines one or both Indian epics, the Mahabharata and Ramayana, while paying attention to either epic's religious, social, and political contexts, performance, and development in Indian history. (CD)

**REL 387. Priests, Warriors and Ascetics in Ancient India. (3 h)**

Introduces students to the history, culture, and ritual traditions of ancient India by examining the overlapping practices, beliefs, ideologies, and gendered representations of priests, warriors, kings, and ascetics. (CD)

**REL 388. South Asian Women: Religion, Culture and Politics. (3 h)**

Examines the intersection of religion, race and gender of South Asian women from a feminist and postcolonial perspective. (CD)

**REL 389. Islam in the West: Changes and Challenges. (3 h)**

Explores issues of identity, ethnicity and religion within various Muslim communities living in western countries. A central goal is to understand how these communities negotiate the new environment and the challenges they face.

**REL 390. Special Topics in Religion. (1.5-3 h)**

Religion topics of special interest. May be repeated for credit. Group I-III with department approval. P-POI.

**REL 391. Topics in East Asian Religions. (3 h)**

Variable topics in the religions of China, Korea, and Japan. May be repeated for credit if topic varies. (CD)

**REL 392. Topics in First Peoples' Traditions. (3 h)**

Variable topics in the religions of American Indian and Canadian First Nations. May be repeated for credit if topic varies. (CD)

**REL 393. Topics in Religions of Africa. (3 h)**

Variable topics in the religions of Africa or African diaspora. May be repeated for credit if topic varies. (CD)

**REL 395. Exploring Interfaith Practice and Leadership. (3 h)**

This online course on interfaith leadership invites students to consider how they might engage most effectively with people from a variety of religious backgrounds. POI.

**REL 396. Interreligious Encounters & Engagements. (3 h)**

Surveys the history of dialogue activities among various religious communities and introduces the methods and theories of interreligious dialogue. Part of this class is interaction with local interfaith projects.

**REL 398. Honors in Religion. (3 h)**

Directed study and research in preparation for writing and completing an honors thesis. P - Admission to the honors program in the Study of Religions.

**REL 399. Senior Colloquy. (1 h)**

This 1-hour capstone course, required for senior majors, is structured around writing and reflection on the major through readings, discussions, and portfolio development. Pass/fail only.

## Sanskrit Language and Literature (SKT)

### SKT 111. Intro to Sanskrit. (3 h)

Two-semester sequence designed to introduce students to classical Sanskrit with emphasis on the basic principles of grammar, syntax, historical linguistics, and the reading of classical Indian texts. On Request.

### SKT 112. Intro to Sanskrit. (3 h)

Two-semester sequence designed to introduce students to classical Sanskrit with emphasis on the basic principles of grammar, syntax, historical linguistics, and the reading of classical Indian texts. On Request.

## Faculty

**Chair** Lynn S. Neal

**Easley Professor of Religion** Stephen B. Boyd

**Wingate Professor of Religion** Simeon O. Ilesanmi

**Wake Forest Kahle Professor of Religion and Albritton Fellow** Mary Foksett

**Professors** James L. Ford, Kenneth G. Hoglund, Nelly van Doorn-Harder, Lynn S. Neal, Jarrod L. Whitaker

**Associate Professors** Lucas F. Johnston, Ronald B. Neal

**Assistant Professors** Annalise Glauz-Todrank, Kimberly T. Wortmann

**Associate Teaching Professor and Bryant-Groves Faculty Fellow** Tanisha Ramachandran

**Assistant Teaching Professor** Leann Pace

## Religious Studies, B.A.

### Requirements

Requires a minimum of 28 hours, of which 18 must be in courses above the 100-level:

Code	Title	Hours
Select courses above the 100-level		18
REL 200	Approaches to the Study of Religion	3
Select one three hour course (or two 1.5 hour courses) from each of the three groups designated:		9
I. Biblical Studies		
II. Religion, History and Society		
III. World Religions		
REL 399	Senior Colloquy (senior year)	1

A minimum GPA of 2.0 in all courses completed in religious studies at Wake Forest is required for graduation with the major. Up to 3 hours from NLL courses 200 or above may be counted toward the major.

Up to 9 hours of coursework completed outside the department and no more than 6 hours of directed reading may be counted toward the major. Majors may not take 100-level courses during their senior year.

**A concentration in religion and public engagement for declared majors and minors in religious studies** requires 15 hours and provides an opportunity for students to undertake a community-based study of educational, economic, cultural and political development strategies, and action.

Code	Title	Hours
REL 332	Religion and Public Engagement	3
Select one of the following:		3

REL 200	Approaches to the Study of Religion	
REL 305	Ethnography of Religion	
REL 336	Religious Traditions and Human Rights	
REL 338	Religion, Ethics, and Politics	
REL 288	Field Program in Religion and Public Engagement (an internship)	3

Select two Elective Courses related to the community partner's context, history, and values \*

\* *Elective courses may be chosen from other departments and programs with approval from the RPE committee.*

## I: Biblical Studies

Code	Title	Hours
REL 261	Foundations of Traditional Judaism	1.5
REL 308	Sacred Scripture in the Traditions of Abraham	3
REL 310	The Prophetic Literature	3
REL 312	The Critical Study of the Pentateuch	3
REL 313	Near Eastern Archeology	3
REL 315	Field Research in Biblical Archeology	3
REL 316	Field Research in Biblical Archeology	3
REL 317	Wisdom Literature	3
REL 318	Feminist and Contemporary Interpretations of the New Testament	3
REL 320	The Search for Jesus	3
REL 323	Jesus Traditions	3
REL 324	Early Christian Literature	3
REL 328	Jewish-Christian Relations and the New Testament	3

## II: Religion, History, and Society

Code	Title	Hours
REL 210	Jerusalem in History and Tradition	3
REL 230	Religion and the U.S. Constitution	3
REL 242	Sex, Death and Salvation	3
REL 244	Religion, Terrorism, and Violence	3
REL 246	Religion and Race	3
REL 266	Religious Sects and Cults	3
REL 267	Religion and Popular Culture	3
REL 330	Pope, Jefferson and Imam: A Study in Comparative Ethics	3
REL 331	Religion and Law	3
REL 332	Religion and Public Engagement	3
REL 335	Religious Ethics and the Problem of War	3
REL 336	Religious Traditions and Human Rights	3
REL 338	Religion, Ethics, and Politics	3
REL 341	Religion and Ecology	3
REL 342	Religious Intolerance in the U.S.	3
REL 344	Religion, Poverty, and Social Entrepreneurship	3
REL 345	The African-American Religious Experience	3
REL 346	Religious Utopias and the American Experience	3

REL 347	Religion, Gender, & Sexuality	3
REL 348	Race, Memory, and Identity	3
REL 355	Jewish Identities: Religion, Race, and Rights	3
REL 356	Faces of Modern Judaism	3
REL 357	Jews in the United States	3
REL 364	Topics in U.S. Religious History	1.5-3
REL 365	History of Religions in America	3
REL 367	Christian Mysticism	3
REL 368	Protestant and Catholic Reformations	3
REL 369	Radical Christian Movements	3
REL 372	History of Christian Thought	3
REL 373	Special Topics in African-American Religious Traditions	3
REL 374	Black Messiahs and Uncle Toms	3
REL 375	Race, Myth, and the American Imagination	3
REL 376	Race, Religion, and Film	3
REL 378	Latin American Liberation Theologies	3

### III: World Religions

Code	Title	Hours
REL 265	Culture and Religion in Contemporary Native America	3
REL 280	God, Gods, and the Ultimate	3
REL 306	Ritual Studies	3
REL 329	Chinese Medicine	3
REL 339	Religion, Power, and Society in Modern Africa	3
REL 343	Religion, Culture, and the Body	3
REL 349	Asian Meditation Practices	3
REL 359	Hinduism in America	3
REL 360	Hindus, Muslims, & Sikhs in North America	3
REL 361	Topics in Buddhism	3
REL 362	Topics in Islam	3
REL 363	The Religions of Japan	3
REL 381	Zen Buddhism	3
REL 382	Religion and Culture in China	3
REL 383	The Quran and the Prophet	3
REL 384	Islam and Law: Varieties in Interpretation and Expression	3
REL 385	Topics in South Asian Religions	3
REL 386	Indian Epics	3
REL 387	Priests, Warriors and Ascetics in Ancient India	3
REL 388	South Asian Women: Religion, Culture and Politics	3
REL 389	Islam in the West: Changes and Challenges	3
REL 391	Topics in East Asian Religions	3
REL 392	Topics in First Peoples' Traditions	3
REL 393	Topics in Religions of Africa	3

## Honors

Highly qualified majors are encouraged to apply for admission to the honors program. Students who wish to pursue this option should refer to the honors guidelines, available on the Department website, for an overview of requirements and procedures. Upon completion of all requirements, a recommendation of honors at graduation will be made by the department based upon the student's overall academic record and the quality of the final project.

## Religious Studies, Minor

### Requirements

Requires 15 hours:

Code	Title	Hours
Select nine hours of courses above the 100-level		9
Select one upper-level course from Group III. World Religions		3

The department provides advisers for students pursuing a minor. Up to 3 hours of coursework completed outside the department may be counted toward the minor and no more than 3 hours of directed reading may be counted toward the minor. No NLL course may count toward the minor.

**A concentration in religion and public engagement for declared majors and minors in religious studies** requires 15 hours and provides an opportunity for students to undertake a community-based study of educational, economic, cultural and political development strategies, and action.

Code	Title	Hours
REL 332	Religion and Public Engagement	3
Select one of the following:		3
REL 200	Approaches to the Study of Religion	
REL 305	Ethnography of Religion	
REL 336	Religious Traditions and Human Rights	
REL 338	Religion, Ethics, and Politics	
REL 288	Field Program in Religion and Public Engagement (an internship)	3

Select two Elective Courses related to the community partner's context, history, and values \*

\* *Elective courses may be chosen from other departments and programs with approval from the RPE committee.*

### III: World Religions

Code	Title	Hours
REL 265	Culture and Religion in Contemporary Native America	3
REL 280	God, Gods, and the Ultimate	3
REL 306	Ritual Studies	3
REL 329	Chinese Medicine	3
REL 339	Religion, Power, and Society in Modern Africa	3
REL 343	Religion, Culture, and the Body	3
REL 349	Asian Meditation Practices	3
REL 359	Hinduism in America	3
REL 360	Hindus, Muslims, & Sikhs in North America	3

REL 361	Topics in Buddhism	3
REL 362	Topics in Islam	3
REL 363	The Religions of Japan	3
REL 381	Zen Buddhism	3
REL 382	Religion and Culture in China	3
REL 383	The Quran and the Prophet	3
REL 384	Islam and Law: Varieties in Interpretation and Expression	3
REL 385	Topics in South Asian Religions	3
REL 386	Indian Epics	3
REL 387	Priests, Warriors and Ascetics in Ancient India	3
REL 388	South Asian Women: Religion, Culture and Politics	3
REL 389	Islam in the West: Changes and Challenges	3
REL 391	Topics in East Asian Religions	3
REL 392	Topics in First Peoples' Traditions	3
REL 393	Topics in Religions of Africa	3

## Russian and East European Studies (REE)

### Interdisciplinary Minor

The minor in Russian and East European Studies provides students with an opportunity to undertake a multidisciplinary study of the culture, economics, history, and politics of Russia and East Europe.

Appropriate credit in various fields of Russian and East European Studies also may be obtained by study abroad in programs approved by the Office of Global Programs and Studies and the coordinator. Students are strongly encouraged to study abroad as part of fulfilling the minor. Interested students are encouraged, preferably in their sophomore year, to consult with the coordinator or an affiliated faculty member to discuss their interests and structure a coherent course of study.

## Contact Information

Russian and East European Studies (<https://global.wfu.edu/global-campus/international-minors/russian-east-european-studies/>)

## Programs

### Minor

- Russian and East European Studies, Minor

## Courses

### Russian and East European Studies (REE)

**REE 200. Introduction to Russian and East European Studies. (3 h)**

An interdisciplinary survey of Russia and the Soviet Union, including an examination of society, polity, economy and culture over time. Also listed as HST 232. Students taking REE 200/HST 232 cannot receive credit for HST 230 or 231. (CD).

## Faculty

**Coordinator, Associate Professor of History** Susan Z. Rupp

## Russian and East European Studies, Minor

### Requirements

The minor requires a total of 18 hours; six of these may also count toward the student's major. Candidates for the minor are required to take:

Code	Title	Hours
REE 200	Introduction to Russian and East European Studies (sophomore or junior year)	3
Electives for Russian and East European Studies *		15

\* *No more than six of these 15 hours may be in a single discipline.*

Courses may be chosen from among the list of approved courses provided. Additional elective courses may have been approved since publication of this bulletin. The program coordinator maintains a complete list of all approved elective courses. Course descriptions may be found in the relevant department's listings in this bulletin.

## Electives for Russian and East European Studies

Additional elective courses may have been approved since publication of this bulletin. The program coordinator maintains a complete list of all approved elective courses. For course descriptions, see the relevant department's listings in this publication.

Code	Title	Hours
COM 351B	Comparative Communication: Russia	1.5,3
ECN 352	International Finance	3
HST 230	Russia: Origins to 1865	3
HST 231	Russia and Soviet Union: 1865 to Present	3
HST 310	20th Century Eastern Europe	3
POL 232	Politics in Russia and Eastern Europe	3

Any RUS courses at or above the 200-level

Students may apply all relevant seminars, colloquia, or independent studies in any of the above departments to the minor.

## Self-Instructional Languages (SIL)

Self-Instructional Languages is a program for students who would like to study a language not offered by the University. Interested students are responsible for finding appropriate textbooks and an evaluator who:

1. Is fluent in the chosen language.
2. Holds an advanced degree.
3. Is a faculty member affiliated with an accredited college or university.

SIL 101, SIL 102 may count towards the minor in linguistics only with approval from the coordinator of linguistics. Any student interested in self-instructional language learning should submit an application to the SIL program coordinator by August 5 for the fall semester and by January 5 for the spring semester.



## Courses

### Self-Instructional Languages (SIL)

#### SIL 101. Self Instructional Language. (3 h)

A course in which students wishing to learn a language not offered at Wake Forest may arrange to study the language in consultation with a native speaker. This course does not count toward the linguistics minor without approval from the coordinator. Pass/Fail only. P-POI.

#### SIL 102. Self Instructional Language. (3 h)

A course in which students wishing to learn a language not offered at Wake Forest may arrange to study the language in consultation with a native speaker. This course does not count toward the linguistics minor without approval from the coordinator. Pass/Fail only. P-POI.

## Faculty

**Coordinator, Associate Professor** Tina Boyer/Department of German and Russian

## Sociology (SOC)

The Department of Sociology at Wake Forest University is a thriving community of teacher-scholars and students devoted to the scientific study and improvement of society. We provide students with an understanding of how communities have dynamic properties that exist independently of, and that structure the beliefs and actions of, any particular individuals. The basic idea behind this perspective is that the larger social context in which we live influences our social institutions, the social groups of which we are apart, our educational and occupational opportunities as well as our most private and personal experiences. Studying sociology is a critical part of a liberal arts education that prepares students for careers in law, medicine, education, public health, social work, business, criminal justice, non-profit organizations, and many other fields.

Our faculty conduct research and teach courses on a range of compelling topics, including the sociology of business, criminal justice, culture, education, emotions, family, gender, health, immigration, law, politics, race and ethnicity, religion, sport, and work. Our courses offer students the opportunity to examine the complex causes and consequences of stratification by socioeconomic status, gender, race, and sexual orientation. Students can earn certification for concentrations in three areas: crime and criminal justice; business and society; the social determinants of health and well-being.

**Study abroad and transfer credit** that can be applied to the sociology major/minor are limited to two courses (6h). For both study abroad and transfer credit, there is a bias against approval of theory, methods, and statistics courses, but these courses will be evaluated on a case-by-case basis. Where students take sociology courses abroad, they must be in Wake Forest approved programs and/or must have been certified by the department. Courses to be considered for transfer credit must be taught at an accredited college/university that offers a 4-year degree, by a faculty member who has a PhD in sociology, and the syllabus for the course must be provided for inspection. In addition, no divisional credit is given for sociology courses taken abroad or at other institutions. The sociology courses of students who are transferring to Wake Forest from other institutions will be considered on a case-by-case basis.

A student who selects sociology to fulfill the Division IV requirement must take one of the following courses:

Code	Title	Hours
SOC 150	Analyzing the Social World	3
SOC 151	Principles of Sociology	3
SOC 152	Social Problems	3
SOC 153	Contemporary Families	3
SOC 154	The Sociology of Deviant Behavior	3
SOC 155	Public Engagement in USA and Other Post-industrial Societies	3

No introductory-level course is required for students taking a sociology course as an elective unless specified in the course description.

## Contact Information

Department of Sociology (<http://college.wfu.edu/sociology/>)  
Kirby Hall 02A  
Phone 336-758-5495

## Programs

### Major

- Sociology, B.A.

### Minor

- Sociology, Minor

## Courses

### Sociology (SOC)

#### SOC 150. Analyzing the Social World. (3 h)

Introduction to key findings and explanatory concepts in sociology through exploring large-scale data sets. Topics may include stratification by socio-economic status, gender, race, and sexual identity. (D, QR)

#### SOC 151. Principles of Sociology. (3 h)

General introduction to the field; social organization and disorganization, socialization, culture, social change, social inequality, and other aspects. (D)

#### SOC 152. Social Problems. (3 h)

Survey of contemporary American social problems such as domestic and international poverty, education, immigration, crime and mass incarceration. (D)

#### SOC 153. Contemporary Families. (3 h)

The social basis of the family, emphasizing the problems growing out of modern conditions and social change. (D)

#### SOC 154. The Sociology of Deviant Behavior. (3 h)

A sociological analysis of the nature and causes of and societal reaction to deviant behavior patterns such as mental illness, suicide, drug and alcohol addiction, sexual deviation, and criminal behavior. (D)

#### SOC 155. Public Engagement in USA and Other Post-industrial Societies. (3 h)

An introduction to core concepts and explanations in social science for differences between the US and other nations on civic engagement, social mobility, educational attainments, public health, and leisure pursuits. (CD, D)

**SOC 270. Sociological Theory. (3 h)**

Introduction to classic and contemporary works of social theory, illustrating and exploring how sociologists analyze social forces, evaluate explanatory hypotheses, and prescribe social remedies. Authors explored range from the 19th century founding figures of Karl Marx, Max Weber, and Emile Durkheim, to contemporary theorists such as Ervin Goffman, Patricia Collins, Judith Butler, Michel Foucault, and Pierre Bourdieu. P - Any 100 level SOC course or POL.

**SOC 271. Social Statistics. (4 h)**

Computer-based survey of basic statistics utilized in sociological research. STA 111 (Elementary Probability and Statistics) or higher is strongly recommended as a prior course. Lab-1 hour. P-Any 100 level SOC course or POL. (QR)

**SOC 272. Research Methods in Sociology. (3 h)**

Overview of both quantitative and qualitative research methods. Research projects required. P - Any 100 level SOC courses or POL.

**SOC 301. Sociology of Religion. (3 h)**

Introduction to the sociological analysis of religion, including religious beliefs and experiences, the cultural context of religion, varieties of religious organization, religious change and social change. Also listed as REL 351.

**SOC 303. Business and Society. (3 h)**

Historical development, organization, and current problems of business enterprises in American society.

**SOC 305. Gender in Society. (3 h)**

The significance of gender in society for individuals and institutions. An examination of differential gender experiences based on race, class, and sexual orientation. Consideration of feminism as a social movement and the possibility for social change. (CD)

**SOC 308. Sociology of Art. (3 h)**

Art as an institution, its functions, organization, relationship to social change and to the communication of meanings.

**SOC 309. Sexuality and Society. (3 h)**

Study of the societal forces that impinge on human sexual behavior, emphasizing the effects of social change, the implications of changing gender roles, cross-cultural and subcultural variations, and the influence of the mass media.

**SOC 316. Conflict Management in Organizations. (3 h)**

An examination of conflict management and social control in organizations, focusing on power structures, management styles and processes of dispute resolution.

**SOC 320. Sociology of Sports and Art Worlds. (1.5 h)**

Seminar on social forces that structure the production and consumption of sports and the arts. Topics may include differences between American and world football; how culture capital determines engagement with the arts.

**SOC 321. Sociology of Contested Past. (1.5 h)**

Seminar on how societies remember their past and why it matters to contemporary social relations. Topics include cases studies of commemorative practices on the Nazi Holocaust, America's Civil War, and the relationship of American universities to slavery.

**SOC 325. The Individual and Society. (3 h)**

Introduces students to the field of sociological social psychology. Examines (1) how membership in social groups shape experiences; (2) the development of the self in social interaction; and (3) the creation of small group culture and structure. Also covers a range of substantive topics such as socialization, identity, emotions, prejudice, deviance, mental health and social change.

**SOC 327. Sociology of Emotion. (3 h)**

Exploration of the social side of emotion, including how emotions are socially learned, shaped, regulated, controlled and distributed in the population as well as the consequences of emotion norms, emotion management, emotional labor, and emotional deviance for individuals, social groups and society. P-one SOC course or POL.

**SOC 328. The Sociology of Food. (3 h)**

Examines systems of food production and their health consequences for workers and consumers; how social identities shape consumption choices and family food responsibilities; and analyzes food insecurity, food policy, and food-focused social movements from a sociological perspective.

**SOC 329. Health Inequalities. (3 h)**

Introduction to current sociological perspectives on the health and well-being of individuals, families, communities, and societies by examining the social determinants of inequalities in both mental and physical health (including reproductive health) based on socioeconomic status, gender, and race/ethnicity in the U.S. P-one SOC course or POL.

**SOC 330. Gender, Social Relationships, and Well-Being. (3 h)**

Examines how and why gender continues to shape men's and women's social relationships, including their social and economic well-being, their emotions and identities, as well as their mental and physical health over the life course. P-one SOC course or POL.

**SOC 331. The Social and Legal Contexts of Medicine. (3 h)**

Examines student socialization, the social structure of medicine and the social and legal contexts in which the medical profession exists and changes.

**SOC 334. Sociology of Education. (3 h)**

An evaluation of the major theories and significant empirical literature, both historical and statistical, on the structure and effects of educational institutions.

**SOC 335. Sociology of Health and Illness. (3 h)**

Examines processes of medicalization, the social experience of illness, cultural influences on the practice of medicine, and inequalities in access to care and resources to support health.

**SOC 336. Sociology of Healthcare. (3 h)**

Analyzes healthcare systems, including the social organization of medical practice, healthcare payment, the education of medical practitioners, and the division of the labor in healthcare.

**SOC 338. Courts and Criminal Procedure in the Era of Mass Incarceration. (3 h)**

An overview of the socio-organization of criminal courts and procedure in the US. The course examines the structure of courts, and questions how conceptualizations of justice and relationships of power have developed over time.

**SOC 339. Family Violence. (3 h)**

Examines family violence including child abuse, intimate partner violence, and elder abuse as well as the criminal justice response to these forms of violence.

**SOC 340. Corrections. (3 h)**

Surveys the political, economic and social factors influencing the historical development of the corrections system. Institutional corrections such as jails, boot camps and prisons will be examined as well as community-based approaches such as probation and parole.

**SOC 341. Criminology. (3 h)**

Introduction to the study of crime, including the development of criminal law, how crime is defined and measured, the patterns and trends of crime, and a review of theories explaining where, when, by whom and against whom crime happens.

**SOC 342. Juvenile Delinquency. (3 h)**

Examines the development of the juvenile justice system. Topics include the concept of childhood and delinquency, measurement of delinquent behavior, gender differences, the impact of relationships within the family, school, and peer groups, and an assessment of policies for control and prevention.

**SOC 343. Law and Society. (3 h)**

Study of the social and cultural factors in the development, maintenance, and change of legal structures and processes. Topics include law as a vehicle and agent of social change, the role of law in social control and dispute resolution, the structure and organization of the legal profession, and the images of law in popular culture.

**SOC 344. Social Justice in Theory, Method, and Practice. (3 h)**

Explores relationships between knowledge production, academic research, and social activism by surveying social science and humanities theory, research methods, and practice oriented toward social justice. Topics include critical theory, community-based research, and contemporary social movements.

**SOC 345. Advanced Seminar on Criminal Homicide. (3 h)**

Examines the various cultural and structural forces that have been identified as major factors in understanding criminal homicide.

**SOC 346. Sociology of Guns. (3 h)**

Examines the multifaceted roles guns play in the U.S. from a sociological perspective. Topics include the history and technology of firearms, origins and development of the 2nd Amendment to the U.S. Constitution, prevalence and distribution of guns, lawful possession and use of firearms, illegal gun markets, gun crime and injuries, gun politics and the efficacy of gun control.

**SOC 347. Society, Culture, and Sport. (3 h)**

An examination of the interrelationship of sport and other social institutions. Emphasis on the study of both the structure of sport and the functions of sport for society.

**SOC 348. Sociology of the Family. (3 h)**

The family as a field of sociological study. Assessment of significant historical and contemporary writings. An analysis of the structure, organization, and function of the family in America.

**SOC 351. Management and Organizations. (3 h)**

A study of macro-organizational processes and changes in contemporary industrial societies and their effects upon managerial systems, managerial ideologies and managers in firms.

**SOC 352. White-collar Crime. (3 h)**

Study of criminal activity committed in the course of legitimate occupations including workplace crime, graft, and business crime.

**SOC 354. Women in Poverty in the U.S.. (3 h)**

An examination of the structural causes of poverty and its consequences, with specific emphasis on women's overrepresentation in poverty and how gender intersects with race, family status, age, and place.

**SOC 355. Social Psychology of Inequality. (3 h)**

Introduction to social psychological perspectives on social inequality with a focus on microlevel structures and processes underlying inequality including gender, age, race/ethnicity, as well as socioeconomic and sexual minority status. P-one SOC course or POI.

**SOC 356. Sociology of Immigration. (3 h)**

Traces the waves of immigration historically and examines current policies and debates, with an emphasis on the political, economic, and social consequences of immigration in the post 1965 era. The focus will be on the United States, but will also consider cross-national comparisons. (CD)

**SOC 359. Race and Racism. (3 h)**

Examines the origins and effects of racial inequality and relationships between race and ethnic groups with a focus on the United States. (CD)

**SOC 360. Social Inequality. (3 h)**

The study of structured social inequality with particular emphasis on economic class, social status, and political power. (CD)

**SOC 362. Work, Conflict, and Change. (3 h)**

Changing trends in the United States labor force. The individual's view of work and the effect of large organizations on white- and blue-collar workers. Use of some cross-cultural data.

**SOC 363. Global Capitalism. (3 h)**

An analysis of industrial organization, including discussion of market relations and the behavior of firms, the structure of industrial development, and labor relations and the growth of trade unions. Also listed as INS 363.

**SOC 364. Power, Politics, and Protest. (3 h)**

Analyzes the interactions between politics, the state and society. Topics include public and social policies, political engagement and social movements, and social change.

**SOC 365. Technology, Culture, and Change. (3 h)**

Examines the interrelated forces that shape change in organizations and societies; from the emergence of capitalist markets to the systems, controls, and information revolution of the 21st century. Also listed as INS 365.

**SOC 366. Sociological Analysis of Film. (3 h)**

Examines the intersection of economic, organizational, and cultural sociology using films and the film industry as focal examples.

**SOC 367. Sociology of Culture. (3 h)**

Examines the most powerful explanatory schools in sociology in the fields of cultural production and consumption. Topics include: stylistic change and the consumption of visual and performance arts; musical tastes; the production and consumption of literature; museum attendance; education and culture; and architecture and design.

**SOC 368. Death and Dying. (1.5 h)**

Analyzes how the experience of physical decline is socially and medically managed, and the role social rituals play in the aftermath of death and grief.

**SOC 369. Social Movements. (3 h)**

Examines social movements and public protest with a focus on why movements arise, how they operate, and what effects they have on participants and on society.

**SOC 380. Special Topics Seminar in Social Institutions. (3 h)**

Intensive investigation of current scientific research on issues involving family, religion, education, politics, and sport.

**SOC 381. Special Topics Seminar in Social Inequality. (3 h)**

Intensive investigation of current scientific research on issues involving gender, class, race, poverty, and sexuality.

**SOC 382. Special Topics Seminar in Social Psychology. (3 h)**

Intensive investigation of current scientific research on issues in the areas of social psychology, the individual, and the social self.

**SOC 383. Special Topics Seminar in Medicine and Health Care. (3 h)**

Intensive investigation of current scientific research on issues in medicine, illness, and health care.

**SOC 384. Special Topics Seminar in Crime and Criminal Justice. (3 h)**

Intensive investigation of current scientific research on issues about crime, police, courts, and corrections.

**SOC 385. Special Topics Seminar in Business and Society. (3 h)**

Intensive investigation of current scientific research on issues in business, work markets, and management.

**SOC 386. Special Topics Seminar in Culture and Social Movements. (3 h)**

Intensive investigation of current scientific research on issues involving, culture, social change, and social movements.

**SOC 390. Special Topics Seminar in Sociology. (1.5-3 h)**

Survey of a selected area in sociology not covered in the regular course offerings. Prospective students should contact the professor before enrolling as topics will vary.

**SOC 391. Special Topics Seminar in Sociology. (1.5-3 h)**

Survey of a selected area in sociology not covered in the regular course offerings. Prospective students should contact the professor before enrolling as topics will vary.

**SOC 394. Research with Faculty. (0.5-3 h)**

Awards credit to students assisting with a research project led by a faculty member. Students can earn a maximum of six credits (pass/fail) between SOC 394 and 395, but only three credits can be counted toward the major or minor. P-POI.

**SOC 395. Research with Faculty. (0.5-3 h)**

Awards credit to students assisting with a research project led by a faculty member. Students can earn a maximum of six credits (pass/fail) between SOC 394 and 395, but only three credits can be counted toward the major or minor. P-POI.

**SOC 398. Individual Study. (1-3 h)**

Reading, research, or internship courses designed to meet the needs and interests of selected students, to be carried out under the supervision of a departmental faculty member.

**SOC 399. Individual Study. (1-3 h)**

Reading, research, or internship courses designed to meet the needs and interests of selected students, to be carried out under the supervision of a departmental faculty member.

## Faculty

**Chair** Catherine Harnois

**Professors** Catherine Harnois, Joseph Soares, Ian M. Taplin, David Yamane

**Associate Professors** H. Kenneth Bechtel, Hana E. Brown, R. Saylor Breckenridge, Amanda Gengler, Ana M. Wahl

**Assistant Professor** Brittany Battle, Alexandra Brewer, Andrea Gomez Cervantes

**Teaching Professor** Steven E. Gunkel

**Adjunct Assistant Professor** Yaqi Yuan

**Research Full Professor** Catherine Harris

**Research Assistant Professor** Robert Freeland

**Emeritus Professor** Catherine Harris

## Sociology, B.A.

### Requirements

Requires 31 hours. Students are required to complete:

Code	Title	Hours
<b>Required Major Courses</b>		
Four Core Courses		
One 100-level SOC course *		3
SOC 270	Sociological Theory **	3
SOC 271	Social Statistics **	4
SOC 272	Research Methods in Sociology **	3
<b>Concentrations within the Major</b>		
Students pursuing a major in sociology may elect to specialize in one of three concentrations:		12
Crime and Criminal Justice		
Business and Society		
Social Determinants of Health and Well-Being		

\* Students should take one 100-level SOC course in the freshmen or sophomore year prior to declaring their major in sociology. Any one but no more than two 100-level SOC courses will count towards the major. No 100-level SOC course taken by seniors can count towards the major.

\*\* Students are strongly encouraged to complete SOC 270 and SOC 271 in the fall of their junior year, and SOC 272 in the spring of their junior year.

A minimum average of 2.0 in all sociology courses is required at the time the major is declared. A minimum GPA of 2.0 in all sociology courses is required for graduation.

## Crime and Criminal Justice

The student must complete the requirements for the major in sociology including 12 hours from the following SOC electives:

Code	Title	Hours
SOC 338	Courts and Criminal Procedure in the Era of Mass Incarceration	3
SOC 339	Family Violence	3
SOC 340	Corrections	3
SOC 341	Criminology	3
SOC 342	Juvenile Delinquency	3
SOC 343	Law and Society	3
SOC 345	Advanced Seminar on Criminal Homicide	3
SOC 346	Sociology of Guns	3
SOC 352	White-collar Crime	3
SOC 364	Power, Politics, and Protest	3
SOC 384	Special Topics Seminar in Crime and Criminal Justice	3

## Business and Society

The student must complete the requirements for the major in sociology including 12 hour from the following SOC electives:



Code	Title	Hours
SOC 303	Business and Society	3
SOC 316	Conflict Management in Organizations	3
SOC 347	Society, Culture, and Sport	3
SOC 351	Management and Organizations	3
SOC 352	White-collar Crime	3
SOC 362	Work, Conflict, and Change	3
SOC 363	Global Capitalism	3
SOC 365	Technology, Culture, and Change	3
SOC 366	Sociological Analysis of Film	3
SOC 385	Special Topics Seminar in Business and Society	3

## Social Determinants of Health and Well-Being

The student must complete the requirements for the major in sociology including 12 hours in the concentration:

Code	Title	Hours
Minimum of 9 hours in sociology from the following two lists:		
Minimum of one of the following core sociology health courses:		3
SOC 329	Health Inequalities	
SOC 335	Sociology of Health and Illness	
SOC 336	Sociology of Healthcare	
SOC 383	Special Topics Seminar in Medicine and Health Care	
Additional sociology health courses:		0-9
SOC 309	Sexuality and Society	
SOC 327	Sociology of Emotion	
SOC 328	The Sociology of Food	
SOC 330	Gender, Social Relationships, and Well-Being	
SOC 339	Family Violence	
SOC 346	Sociology of Guns	
SOC 368	Death and Dying	
Approved non-sociology courses *		3
ANT 360	Anthropology of Global Health	
ANT 362	Medical Anthropology	

\* Pending approval by core faculty in the concentration or the Chair of the Department, students may have the option of counting a health-related course in another social science department not on the list towards the 12-hours once they provide a syllabus of the course.

Students must petition the department for substitutions. A minimum of 31 hours is required for each program. Students who complete the requirements for a concentration are awarded a certificate by the department and have the concentration included on their college transcript.

## Honors

Students will be awarded the designation "Honors in Sociology," if their GPA in the major at the time of graduating is 3.8 or higher. Students

interested in doing independent research must gain the consent of an appropriate faculty member and sign up for a SOC 398 or SOC 399.

## Sociology, Minor

### Requirements

Requires 15 hours and must include:

Code	Title	Hours
Select at least one but no more than two 100-level SOC courses *		
Select at least one of the following 200-level courses:		3
SOC 270	Sociological Theory	
SOC 271	Social Statistics	
SOC 272	Research Methods in Sociology	

\* No 100-level sociology course taken by seniors may count towards the minor.

A minimum GPA of 2.0 in sociology courses is required at the time the minor is declared. A minimum GPA of 2.0 in sociology courses is required for certification as a minor. Students who intend to pursue a sociology minor are encouraged to notify the department early in their junior year, and they are invited to participate in all departmental functions.

## Spanish and Italian (SPA/ITA)

The Department's mission is to guide students towards proficiency in Spanish or Italian and toward the knowledge necessary to communicate effectively in a variety of cultural contexts. Foreign language literacy and intercultural competence are central components of a liberal arts education and open up diverse and unique career opportunities.

## Programs

The Department offers programs leading to a major in Spanish, minors in Spanish and Italian, and concentrations in Spanish for Business, Spanish for Health Professions, Spanish Translation/Localization and Spanish Interpreting. The requirements for completion of each degree program are those in effect in the bulletin year when the declaration of the major, minor, and concentration occurs.

## Study Abroad

The Department strongly encourages student of Spanish and Italian to spend a year, a semester, or a summer studying abroad. Overseas study in concert with on-campus coursework helps students develop greater fluency, deeper knowledge of other cultures, and increased awareness of their own language, attitudes, and beliefs.

## Special Notes

### Pass/fail Policy for 100-Level Language Courses:

Sophomores, juniors, and seniors may choose to take 100-level language courses pass/fail, subject to instructor approval and the following requirements:

1. Pass/fail students must achieve an overall course grade of C or better to pass.
2. Pass/fail student are subject to the same attendance policy as all students.



3. Pass/fail student must complete each component of the course included in the syllabus grade breakdown. That is, students will not be able to skip any one part of the course, such as homework or the final exam, and still earn a pass grade.

#### Transfer credit Policy:

Transfer credit **from American universities** must be pre-approved before courses are taken by students. Course instruction and coursework must be entirely in Spanish. No online courses will count towards the major or minor. Courses must be similar in content and coursework to those listed under Spanish and Italian in the Undergraduate Bulletin.

Transfer credit **from non-WFU study abroad programs** will be approved as 500 or 520 credit. Transfer credit as 500 will count as elective credit for the major or minor (limit of 3 credits). Transfer credit approved as 520 will count as general elective credit towards graduation.

No more than 3 hours of credit from non-Wake Forest (affiliate) study abroad programs will count towards a Spanish major or minor.

## Contact Information

Department of Spanish & Italian (<http://college.wfu.edu/spanishitalian/>)  
Greene Hall 324, Box 7566  
Phone 336-758-5487

## Programs

### Major

- Spanish, B.A.

### Minor

- Italian Language and Culture, Minor
- Spanish, Minor

## Foreign Area Studies

- Italian Studies
- Spanish Studies

## Concentrations

- Spanish for Business, Concentration
- Spanish for Health Professions, Concentration
- Spanish Interpreting, Concentration
- Spanish Translation/Localization, Concentration

## Summer Programs and Study Abroad Summer Programs for the Language Requirement

- Intensive Summer Language Institute (ISLI)
- Salamanca 212 Program

## Study Abroad Programs in Spanish

- Salamanca, Spain (spring or fall)
- Buenos Aires, Argentina and Santiago, Chile (spring only)

- Havana, Cuba (summer)
- Salamanca, Spain (summer)

## Study Abroad Programs in Italian

- Venice, Italy: Casa Artom (spring or fall)
- Sorrento, Italy (summer)

## Courses Italian (ITA)

### ITA 111. Elementary Italian I. (3 h)

Beginners course covering grammar essentials and emphasizing speaking, writing, and the reading of elementary texts. Lab required. ITA 111 and 112 count for students in the Venice program.

### ITA 112. Elementary Italian II. (3 h)

Beginners course covering grammar essentials and emphasizing speaking, writing, and the reading of elementary texts. Lab required. ITA 111 and 112 count for students in the Venice program.

### ITA 113. Intensive Elementary Italian. (4 h)

Intensive course for beginners, emphasizing the structure of the language and oral practice. Recommended for students in the Venice program and for language minors. Credit not given for both ITA 113 and ITA 111 or 112. Lab required. Lecture. By placement or faculty recommendation.

### ITA 153. Intermediate Italian. (4 h)

Continuation of ITA 113, with emphasis on speaking, developing students' reading, writing skills and preparing them for oral and written discussion of literary texts in ITA 212 or 213. Lab required. P-ITA 112 or 113.

### ITA 154. Intermediate Italian. (3 h)

An intermediate-level course intended for students who have taken the 111-112 sequence. It offers the opportunity to develop further their reading, writing and conversation skills and prepare for oral and written discussion of literary texts in ITA 212 or 213. Lab required. P-ITA 111-112.

### ITA 196. Italian Across the Curriculum. (1.5 h)

Coursework in Italian done as an adjunct to specially-designated courses throughout the College curriculum. May be taken for grade of Pass/Fail. P-POI.

### ITA 197. Italian for Reading Knowledge. (1.5 h)

Review of essential Italian grammar, usage, vocabulary, and processing strategies for reading various types of literary, social science, and technical publications for content. Designed for students interested mainly in strengthening reading proficiency in the language and aimed at preparing students to take the graduate reading exam administered at the end of the course. Undergraduate credit given. Offered in the first half of the semester. P-Intermediate Italian or equivalent and placement exam.

### ITA 212. Exploring the Italian World. (3 h)

Continued language study through exploration of significant cultural expression from the multifaceted Italian world. Credit not given for both ITA 212 and 213. P - ITA 153 or equivalent.

### ITA 213. Introduction to Italian Literature. (3 h)

Reading of selected texts in Italian. Satisfies basic requirement in foreign language. Students cannot receive credit for both ITA 212 and 213. P-ITA 153 or equivalent.

**ITA 217. Studies of Italy. (3 h)**

Survey course on Italian literature from authors from the various regions of Italy and on special cultural themes such as Italian immigration and new immigrations in Italy to give to students in Venice a deeper and broader understanding of Italian cultural complexity. Only taught in Venice. P - ITA 212 or 213 or POI.

**ITA 260. Contemporary Italy. (3 h)**

Study of society and culture in contemporary Italy. Offers elements of civilization, arts, gender, politics, literature and cinema and includes Italian-American studies. Intended for students interested in continuing Italian beyond the language requirement. P-ITA 212, 213 or POI.

**ITA 280. Business Italian. (3 h)**

Development of vocabulary and communication skills necessary to operate in Italian business settings. Emphasis on cross-cultural competency in the context of Italian business practices. P-ITA 212 or 213.

**ITA 319. Grammar and Composition. (3 h)**

Review of the basics of structure and vocabulary; detailed examination of syntax and idiomatic expressions; practice in translation of texts of diverse styles and from varied sources; and free composition. P-ITA 212, 213 or 216 or equivalent.

**ITA 324. Italian Regional Cultures. (3 h)**

Focuses on different aspects of regional cultures in Italy. Emphasizes local lifestyles, literatures, and cinematography. Regional cultures and historic background are analyzed and compared through class demonstrations and cultural artifacts. P - ITA 319 or POI.

**ITA 326. Comedy in Italian Cinema. (3 h)**

Study of modern Italian society through the analysis of films from the 1950s to the present. Taught in Italian. P - ITA 319 or POI.

**ITA 327. Modern Italian Cinema. (3 h)**

Study of the major developments of modern Italian cinema. Full-length feature films by Federico Fellini, Ettore Scola, Pier Paolo Pasolini, Bernardo Bertolucci, Marco Bellocchio, Gianni Amelio, Nanni Moretti, Gabriele Moretti Salvatores, Giuseppe Tornatore, Massimo Troisi, Roberto Benigni, and other Italian filmmakers will be studied and discussed from different perspectives. P - ITA 319 or POI.

**ITA 328. Dante's Divine Comedy. (3 h)**

Introduces Italian medieval literature and culture through a selected, critical reading of Dante's masterpiece and other medieval texts. Introduces students to the intellectual and social context of the Italian Middle Ages by relating the texts to the cultural, political, social, and philosophical concerns of the period. P - ITA 319 or POI.

**ITA 329. Love, Gender, and Diversity in Italian Epic. (3 h)**

The course focuses on spaces and modalities of representation of love, gender, and diversity in Italian epic through text and images, including films. P - ITA 319 or POI.

**ITA 333. Italian Theatre. (3 h)**

Study of representative Italian drama such as commedia dell'arte and works from Machiavelli, Goldoni, and Dario Fo. P - ITA 319 or POI.

**ITA 335. Italian Women Writers. (3 h)**

Study of representative novels by women writers from Italy and the Italian world, with emphasis on the historical novel within its cultural context. P - ITA 319 or POI.

**ITA 336. Italian Women and the City. (3 h)**

This course proposes, through Italian readings and films, the interpenetration of women's lives with the urban environment, both physical and imagined. It proposes to be a guide to mapping not only how city spaces shape or limit women's lives, but also how women participate in the construction or reconstruction of these spaces. P-ITA 319 or POI.

**ITA 338. South in Contemporary Italy. (3 h)**

Throughout centuries of struggles for nationhood, southern Italy as a society dealt with many obstacles: hastened modernization, regionalism and organized crime. This course examines southern Italy as a society through history, short novels, films, newspapers and academic articles within a national perspective. P-any 200-level course.

**ITA 340. Traveling with Muhammad and Dante. (3 h)**

Examines, in literary and visual forms, the Book of the Ladder of Muhammad and Dante's *Inferno* where the journeys of the two travelers into the afterlife are narrated. P-ITA 319 or POI.

**ITA 342. Boccaccio's Decameron or "Sex in the City": Rethinking Community in Medieval Florence. (3 h)**

Studies the impact of the plague that hit Europe in 1348 and the power of storytelling to rebuild the community. P - ITA 319 or POI.

**ITA 346. Narrating and Visualizing the Mediterranean in the Italian Trecento. (3 h)**

This course examines the representation of the Mediterranean through texts and images. P - ITA 319 or POI.

**ITA 375. Special Topics. (3 h)**

Selected special topics in Italian literature. P - ITA 319 or POI.

**ITA 381. Italian Independent Study. (1.5-3 h)**

May be repeated once for credit. P - POI.

## Italian Literature and Culture in English (IAS)

In addition to courses taught in Italian, the Department offers these course on Italian literature and culture in English. Courses marked with (D) carry Division II credit.

**IAS 210. Introduction to Italian Literature. (3 h)**

Italian literature through the centuries focusing on Italy's most significant contributions to Western literature and culture. Includes major works in poetry, theater, and novels that explore Italian historical, social, and cultural experiences and reflect on the process of literary creation. (D)

**IAS 212. Contemporary Italian Fiction. (3 h)**

Introduction to works of fiction in post-World War II Italy. Themes vary and may include historical trauma, the changing faces of Italy, and the role and forms of fiction in the contemporary world. (D)

**IAS 214. Italian Drama. (3 h)**

Survey of Italy's most influential contributions to the history of theater, ranging from Commedia dell'arte, Renaissance spectacle, and the bourgeois theater of Carlo Goldoni to the Nobel prize-winning 20th century playwrights Luigi Pirandello and Dario Fo. (D)

**IAS 220. Italian Women Writers. (3 h)**

Through readings, films, and documentaries, explores the foremost issues concerning contemporary women's writing in the Italian context —women's fight against marginalization and struggle for freedom, both economic and social, and the right to assert themselves. (D)

**IAS 310. Italian Historical Fiction. (3 h)**

Inquiry into Italian novels and stories blending fictional and historical elements. (D)

**IAS 325. Italian Neorealism in Films and Novels. (3 h)**

Study of important films, novels, and short stories of Italian Neorealism, including considerations of the history, philosophy, politics, artistic movements and civic renaissance of postwar Italian life that led to its development. (D)

**IAS 360. Dante. (3 h)**

Study of the *Divina Commedia* as epic, prophecy, autobiography, and poetry, relating it to antiquity, Christianity, Dante's European present, the birth new intellectual and poetic forms, and Dante's own afterlife in the West. (D)

**IAS 380. History of Italian Cinema. (3 h)**

Examines the cultural history and aesthetics of motion pictures through the works of significant Italian filmmakers and genres from silent era to the 21st century.

## Portuguese (PTG)

**PTG 111. Elementary Portuguese. (3 h)**

Two-semester sequence designed to help students develop the ability to understand and speak Portuguese and also learn to read and write Portuguese at the elementary level. Labs required.

**PTG 112. Elementary Portuguese. (3 h)**

Two-semester sequence designed to help students develop the ability to understand and speak Portuguese and also learn to read and write Portuguese at the elementary level. Labs required.

**PTG 113. Intensive Elementary Portuguese. (4 h)**

Intensive introduction to Portuguese designed to help students develop the ability to understand and speak Portuguese and also learn to read and write Portuguese at the elementary level. P-POI.

**PTG 153. Intermediate Portuguese. (4 h)**

Intermediate-level course covering the structure of the language, developing students' reading, writing and conversation skills and preparing them for oral and written discussion of readings. Note that PTG 153 and 154 are mutually exclusive. Labs required. P-PTG 113 or POI.

**PTG 154. Accelerated Intermediate Portuguese. (3 h)**

Intensive intermediate-level course. Offers the opportunity to develop further reading, writing and conversation skills and prepare for oral and written discussion of readings. Labs required. P-PTG 113 or POI.

**PTG 212. Exploring the Lusophone World. (3 h)**

Exploration of significant cultural expressions from the Portuguese-speaking world. Emphasis on the development of competence in speaking, reading and writing Portuguese and on understanding how particular Lusophone societies have defined themselves. Offered only upon sufficient demand. P-PTG 153 or 154 or equivalent.

## Spanish (SPA)

**SPA 111. Elementary Spanish I. (3 h)**

A two-semester sequence designed to help students develop the ability to understand and speak Spanish and also learn to read and write Spanish at the elementary level. Labs required.

**SPA 112. Elementary Spanish II. (3 h)**

A two-semester sequence designed to help students develop the ability to understand and speak Spanish and also learn to read and write Spanish at the elementary level. P-SPA 111 or equivalent. Labs required.

**SPA 113. Intensive Elementary Spanish. (4 h)**

A course reviewing the material of SPA 111-112 in one semester, intended for students whose preparation for SPA 153 is inadequate. Credit not given for both SPA 113 and SPA 111 or 112. Labs required. By placement or faculty recommendation.

**SPA 153. Intermediate Spanish. (4 h)**

Intermediate-level course covering the structure of the language, developing students' reading, writing, and conversation skills and preparing them for oral and written discussion of readings. Note that SPA 153 and 154 are mutually exclusive. Labs required. P—SPA 111-112, or 113; or placement.

**SPA 153S. Intensive Beginning and Intermediate Spanish in an Immersion Setting. (5 h)**

Designed to enable students to achieve proficiency in Spanish language at the beginning-intermediate level by developing reading, writing, and conversation skills and preparing students for oral and written discussion of readings. Offered only in the summer. (ISLI) P—SPA 112 or 113; or placement; or POI.

**SPA 154. Accelerated Intermediate Spanish. (3 h)**

An intensive, intermediate-level course intended for students with a stronger background than 153 students. It offers the opportunity to develop further their reading, writing, and conversation skills and prepare for oral and written discussion of readings. Labs required. P-POI or placement.

**SPA 195. Spanish Language and Culture. (1-3 h)**

Spanish vocabulary, grammar, and culture. Offered only in Wake Forest study abroad programs. P-POI.

**SPA 197. Spanish for Reading Knowledge. (1.5 h)**

Review of essential Spanish grammar, usage, vocabulary and processing strategies for reading various types of literary, social science and technical publications for content. Designed for students interested mainly in strengthening reading proficiency in the language, and aimed at preparing students to take the graduate reading exam administered at the end of the course. Undergraduate credit given. Offered in the first half of the semester. Pass/Fail only. P-Intermediate Spanish or its equivalent, and placement exam.

**SPA 198. Service Learning in Spanish Language. (1.5 h)**

Experiential learning that links classroom instruction and community service done as an adjunct to specially-designated courses throughout the Spanish curriculum. Pass/Fail only. May be repeated for credit. P-POI.

**SPA 199. Internship in Spanish Language. (1.5, 3 h)**

Under faculty direction, a student undertakes a language project in conjunction with a service commitment or internship in a Spanish-speaking country. Includes, but is not limited to, vocabulary building, keeping a journal, and reading professional material. Offered only in Salamanca. May be repeated for credit. Pass/fail only. P - SPA 309 or 309L; or POI.

**SPA 212. Exploring the Hispanic World. (3 h)**

Explores significant cultural expressions from the Spanish-speaking world. Emphasizes both the development of competence in speaking, reading and writing Spanish, and understanding how particular Hispanic societies have defined themselves. Credit not allowed for both SPA 212 and 213. P—SPA 153; or equivalent.

**SPA 213. Encounters: Hispanic Literature and Culture. (4 h)**

Encounters with significant literary expressions from the Spanish-speaking world. Emphasizes the advancement of competence in speaking, reading and writing, and the analysis of literature in its cultural contexts. Credit not allowed for both 213 and 212. P—SPA 153 or equivalent.

**SPA 280. The Spanish-Speaking World: Portals and Perspectives. (3 h)**

Examination of the diversity of cultural, linguistic, and artistic expressions and the role of Spanish in today's globalized world. P—SPA 212 or 213; or POI; or placement.

**SPA 280L. The Spanish-Speaking World: Portals and Perspectives for Heritage Speakers. (3 h)**

Examination of the diversity of cultural, linguistic, and artistic expressions and the role of Spanish in today's globalized world. Open to heritage speakers of Spanish only. P-SPA 212 or 213; or POI; or placement.

**SPA 290. Workshop in Critical Reading and Writing. (3 h)**

Practice in language analysis with emphasis on developing effective reading and writing strategies. Not open to students who have already completed 7 hours in the major. P-SPA 212 or 213; or POI.

**SPA 300A. Spanish Across the Curriculum. (1.5 h)**

Course work in Spanish done as an adjunct to specially-designated courses throughout the college curriculum. May be taken for grade or Pass/Fail. May be repeated for credit. P-POI.

**SPA 300B. Spanish Across the Business/Economics Curriculum. (1.5 h)**

Coursework in Spanish done as an adjunct to specifically-designated courses in business and economics curriculum. May be repeated for credit. P-POI.

**SPA 300C. Spanish Across the Sciences Curriculum. (1.5-3 h)**

Coursework in Spanish done as an adjunct to specifically-designated courses in the sciences and medical curriculum. May be repeated for credit. P-POI.

**SPA 301. Intensive Spanish. (1.5 h)**

Intensive study and practice of the oral and written languages. Familiarization with Spanish culture and daily life. Classes in conversational and idiomatic Spanish, excursions to points of interest and lectures on selected topics. Pass/Fail only. Does not count towards the major or minor.

**SPA 303. Spanish Conversation. (3 h)**

Based on cultural material intended to increase students' aural skills and oral proficiency by systematically increasing vocabulary and reinforcing command of specific grammatical points. Counts toward the major. Students whose speaking skills, in the instructor's judgment, are already advanced, may not enroll. P—200-level course or equivalent.

**SPA 303I. Language Study in the Context of an Internship. (1.5, 3 h)**

Development of oral proficiency and writing skills. Reading, discussions, and writing assignments based on texts relevant to internships being undertaken by students. Must be taken in conjunction with SPA 199. The combinations of this course and SPA 199 may count as a maximum of 3 hours toward the major or minor. P - a 200-level course.

**SPA 304. Selected Topics in Spanish Language and Hispanic Culture. (3 h)**

Topics vary. Offered only in Abroad Programs. May be repeated for credit when the topic changes. P - 200-level SPA course or equivalent.

**SPA 309. Grammar and Composition. (4 h)**

Systematic study of Spanish morphology, sentence structure, and expository usage applied to various kinds of composition, including description, narration, and argumentation. P— SPA 280 or equivalent.

**SPA 309L. Grammar and Composition for Heritage Speakers of Spanish. (4 h)**

Systematic study of Spanish orthography, word formation, sentence structure, and expository usage applied to various written forms. Emphasis on grammatical knowledge, vocabulary development, and extensive writing practice. Content and skills intended for heritage speakers who are competent in spoken Spanish but want to improve their writing skills. P—200-level course or equivalent and POI.

**SPA 310. Anecdotes, Bestsellers, Cuentos. The ABCs of Storytelling in the Spanish-Speaking World. (3 h)**

Traces the development of prose fiction and non-fiction, with special attention to signature movements, texts, and representative writers. P— SPA 280 or 290.

**SPA 311. Bard, Ballad, Bolero. Poetry, and Song in the Spanish-Speaking World. (3 h)**

Survey of poetry and music with study of representative examples from a variety of periods and countries. P—SPA 280 or 290.

**SPA 312. Page, Stage, and Performance. Theater and Drama of the Spanish-Speaking World. (3 h)**

Survey of theatrical productions and dramatic texts with study of representative examples from a variety of periods and countries. P— SPA 280 or 290.

**SPA 313. Lights, Camera, ¡Acción!. Cinema and Culture in the Spanish-Speaking World. (3 h)**

Traces the development of cinematic arts and industry, with special attention to signature movements, films, and directors and the representation of cultures on screen. P—SPA 280 or 290.

**SPA 315. The Making of Spain: Interdisciplinary Approaches to the Cultures of Spain. (3 h)**

Examination of Spain's cultural pluralism through visual arts, architecture, film, music, and literature from the medieval period to the present. P— SPA 280 or 290. (CD)

**SPA 316. Paradise in Perspective: An Interdisciplinary Approach to the Wider Caribbean. (3 h)**

Examination of Hispanic Caribbean cultures through visual arts, architecture, film, music, and literature from the pre-Columbian period to the present. P—SPA 280 or 290. (CD)

**SPA 317. Distant Neighbors: Interdisciplinary Approaches to Mexico and Central America. (3 h)**

Examination of Mexican and Central American cultures within today's global world through visual arts, architecture, film, music, and literature from the pre-Columbian period to the present. P - SPA 280 or 290. (CD)

**SPA 318. The Andes to Patagonia: Interdisciplinary Approaches to South American Culture. (3 h)**

Examination of Andean and Southern Cone cultures through visual arts, architecture, film, music, and literature from the pre-Columbian period to the present. P—SPA 280 or 290. (CD)

**SPA 319. Literary and Cultural Studies of Spanish America. (3 h)**

Study of selected major works of Spanish-American literature within their historical and cultural contexts. Emphasis on linguistic and political structures, intellectual currents, art, music, and film to promote understanding of Spanish America's historical development. Offered only in WFU abroad programs. P-SPA 280 or 290. (CD)

**SPA 320. Introduction to Hispanic Linguistics. (3 h)**

Survey of the core areas in Hispanic linguistics: phonetics, phonology, morphology, syntax, semantics, and language variation. Basic concepts and methodology of linguistic analysis as preparation for further study in the field. P—SPA 309 or 309L.



**SPA 322. Spanish pronunciation and Dialect Variation. (3 h)**

Description of, and practice with, the sounds, rhythm, and intonation of Spanish and the differences from English, with special attention to social and regional diversity. Strongly recommended for improving pronunciation. Meets a N.C. requirement for teacher certification. P—SPA 309 or 309L.

**SPA 325. Spanish for Business I. (3 h)**

Introduction to the vocabulary and skills necessary to perform effectively in Hispanic business settings. Emphasis on oral and written practices, reading, and intercultural knowledge of business practices. P-SPA 309 or 309L or POI.

**SPA 326. International Business: Spain/Latin America. (3 h)**

Study of characteristic features of Spanish and/or Latin American business culture. Focuses on communicating successfully in the world of Hispanic commerce and on acquiring an international view of current issues in business. Offered only in WFU abroad programs. P-SPA 309 or 309L or POI.

**SPA 327. Spanish for Business II. (3 h)**

Continued study of the discourse used in Hispanic business settings. Emphasis on oral and written business presentations, reading and analysis of case studies, and intercultural knowledge of the business world. P-SPA 309 or 309L or POI.

**SPA 328. Medical Spanish. (3 h)**

Study of terminology and sociocultural issues relevant to interlinguistic medical communication. Oral and written practice in the medical context. P - SPA 309 or 309L; or POI.

**SPA 329. Intermediate Topics in Literary and Cultural Studies. (3 h)**

Selected topics in Spanish and/or Spanish-American literature and culture offered at an intermediate level. Topics vary. Offered only in WFU abroad programs. May be repeated for credit when topic changes. P-SPA 280 or 290.

**SPA 330. The Debate about Woman in Late Medieval Spain. (3 h)**

Explores romantic love in the Iberian Peninsula in the 14th and 15th centuries focusing on the debate about woman as an index of the social changes happening at that moment. P— any course in SPA 310-SPA 319 sequence; or POI.

**SPA 331. Medieval Spain: A Cultural and Literary Perspective. (3 h)**

Examines literary, social, and cultural themes, such as: Quests and Discoveries, Pilgrimage and the Act of Reading, Images of Islam, The Judaic Tradition in Spanish Literature, and Spiritual Life and Ideal. P— any course in SPA 310-SPA 319 sequence; or POI.

**SPA 332. The Golden Age of Spain. (3 h)**

Close analysis of literary texts, such as *Lazarillo de Tormes*, and study of the history, art, politics, and economics of the 16th and 17th centuries, with emphasis on themes such as the writer and society, humanism, the picaresque, Catholic mysticism, and power and politics. P— any course in SPA 310-SPA 319 sequence; or POI.

**SPA 333. The Spain of Don Quijote. (3 h)**

Study of the novel *Don Quijote* and its film adaptations, with emphasis on the portrayal of gender roles and individual and collective identity. P-any course in SPA 310-SPA 319 sequence; or POI.

**SPA 334. Voices of Modern Spain. (3 h)**

Study of the multifaceted cultural identity of contemporary Spain through different literary genres, art, and film. P-any course in SPA 310-SPA 319 sequence; or POI.

**SPA 335. Love, Death, and Poetry. (3 h)**

Study of the representation of universal themes in Spanish poetry from different historical periods. P-any course in SPA 310-SPA 319 sequence; or POI.

**SPA 336. Lorca, Dali, Bunuel: An Artistic Exploration. (3 h)**

Study of the relationship of these three Spanish artists through their writings, paintings, and films, respectively, and of their impact on the 20th century. P-any course in SPA 310-SPA 319 sequence; or POI.

**SPA 337. Contemporary Theater from Spain. (3 h)**

Study of major dramatic works from Spain. P-any course in SPA 310-SPA 319 sequence; or POI.

**SPA 338. Fashioning Class, Gender, and National Identity in 18th/19th-Century Spain. (3 h)**

Explores representations of social class, gender, and national identity in the literature and visual culture of Spain (fashion, illustrated press, etc.) of 18th/19th-Century Spain. Topics vary, but overarching themes may range from royal identity and Enlightenment to industrialization and middle-class culture. P-any course in SPA 310-SPA 319 sequence; or POI.

**SPA 341. Latin American Historical Fiction: Memory, Myth, and Social Justice. (3 h)**

Introduction to the ways Latin American historical fiction has shaped public memory over the past five centuries. Representative novels, plays, poems, films, and short stories. P-any course in SPA 310-SPA 319 sequence; or POI.

**SPA 342. From Colonial to Postcolonial Voices. (3 h)**

Exploration of twentieth- and twenty-first century literary, artistic, and cinematic adaptations of colonial stories of discovery by writers, artists, and filmmakers from Spain and Spanish America. P-any course in SPA 310-SPA 319 sequence; or POI.

**SPA 343. Travel Literature. (1.5-3 h)**

Analyzes various cultural documents to ask questions such as: what do travelers report seeing, how do they describe their journeys and why? In the past and the present, how has travel literature influenced European perceptions of the Americas and vice versa? P-any course in SPA 310-SPA 319 sequence; or POI.

**SPA 344. The 18th- and 19th-century Periodical Press in Spain and Spanish America. (1.5-3 h)**

Explores the role of newspaper culture for Enlightenment projects. Topics include patriotism, national histories, natural histories, cultural critique, science and satire. P-any course in SPA 310-SPA 319 sequence; or POI.

**SPA 345. The Transatlantic Civil War. (3 h)**

Exploration of the artistic and literary responses to the Spanish Civil War. Emphasis on the resulting cultural exchange among Spain, Latin America, and the United States. P-any course in SPA 310-SPA 319 sequence; or POI.

**SPA 346. Transatlantic Transitions: Postdictatorship in Spain and the Southern Cone. (3 h)**

Examination of the intersections among trauma, memory, and culture in Spain, Argentina, Chile, and Uruguay during and after the rule of dictatorial regimes in the late twentieth century. Relates political needs for reconciliation, reconstruction, and remembrance to specific aesthetic strategies. P-any course in SPA 310-SPA 319 sequence; or POI.

**SPA 347. Contemporary Theater in Spain and Spanish America. (3 h)**

Study of contemporary Peninsular and Spanish-American theater within its political, social, cultural, and aesthetic context. P-any course in SPA 310-SPA 319 sequence; or POI.



**SPA 348. Contemporary Women Novelists and their Female Characters. (3 h)**

Study of representative novels by women writers from Spain and Latin America, with emphasis on the representation of the female protagonist within her cultural context. P-any course in SPA 310-SPA 319 sequence; or POI.

**SPA 349. Great Authors and Directors. (1.5-3 h)**

Study of works by a major Hispanic author or film director with attention to formative contexts as well as aesthetic, cultural, and socio-political legacies. May be repeated for credit when focus changes. P-any course in SPA 310-SPA 319 sequence; or POI.

**SPA 350. Film Adaptations of Literary Works. (3 h)**

Study of the cinematic and literary discourses through major Spanish literary works from different historical periods and their film adaptation. P-any course in SPA 310-SPA 319 sequence; or POI.

**SPA 351. Cinema and Society. (3 h)**

Exploration of a specific national or regional film history with particular attention to cinematic representations of social, political, and cultural contexts. May be repeated for credit when focus changes. P-any course in SPA 310-SPA 319 sequence; or POI.

**SPA 355. Romantic Nationalism, Avant-garde Nihilism, and the Deconstruction of Utopia. (3 h)**

Study of Latin-American poetry, including symbolist, surrealist, and conversational poetry, "happenings," and artistic manifestoes. Politics, nation-building, liberation theology, and love are common themes. P-any course in SPA 310-SPA 319 sequence; or POI.

**SPA 356. Transgressing Borders: Identity in Latin-American and U.S. Latino Cultures. (3 h)**

Socio-historical study of theories on culture, sexual politics, and race in relation to literary texts, lyrics of popular music, and art of Latin America and the diaspora. P-any course in SPA 310-SPA 319 sequence; or POI.

**SPA 357. Spanish American Short Story. (3 h)**

Intensive study of the 20th-century Spanish-American short story with emphasis on major trends and representative authors, such as Quiroga, Rulfo, Borges, Cortázar, Donoso, and García Márquez. P-any course in SPA 310-SPA 319 sequence; or POI.

**SPA 358. Spanish-American Novel. (3 h)**

Study of the novel in Spanish America from its beginning through the contemporary period. P-any course in SPA 310-SPA 319 sequence; or POI.

**SPA 359. Spanish-American Theater: From Page to Stage. (3 h)**

Study of the transition of a dramatic work from text to performance and the role of Spanish-American theater as a vehicle for cultural values and socio-political issues. Includes rehearsals for the public staging of selected one-act plays. Proficiency in Spanish and willingness to act on stage are required. P-any course in SPA 310-SPA 319 sequence; or POI.

**SPA 360. Contemporary Theatre. (3 h)**

Study of major dramatic works from various Latin-American countries. P-any course in SPA 310-SPA 319 sequence; or POI.

**SPA 361. Fictions of Mexican Revolution. (3 h)**

Explores 20th-century Mexican cultural production as it relates to the Mexican Revolution (1910-1920). Readings include novels, short stories, popular poetry, and historiographic texts. Attention to Mexican muralism and cinema, and special emphasis on relationships between literature, history, and contemporary politics. P-any course in SPA 310-SPA 319 sequence; or POI.

**SPA 362. Masculinity in Mexican Cinema. (3 h)**

Explores representations of masculinity in contemporary Mexican film (1990-present) with attention to film genres, aesthetic movements, national and global sociopolitical contexts, and gender politics. P-any course in SPA 310-SPA 319 sequence; or POI.

**SPA 363. Cultural and Social Entrepreneurship: Promotion of Latin American and Latino Societies. (3 h)**

Sparks interdisciplinary entrepreneurial thinking about careers in arts and educational organizations that both serve and promote Latino communities and provides the knowledge and skills to implement effective programming. P-any course in SPA 310-SPA 319 sequence; or POI.

**SPA 364. Indigenous Literatures and Visual Arts in Latin America. (3 h)**

Study of the images, identities, and self-representations of contemporary indigenous societies in 20th- and 21st-century Latin America. Analysis and discussion of literary texts and visual arts. P-any course in SPA 310-SPA 319 sequence; or POI.

**SPA 366. Advanced Topics in Literary and Cultural Studies. (3 h)**

Selected topics in Spanish and/or Spanish-American literature and culture offered at an advanced level. Topics vary. Offered only in WFU abroad programs. May be repeated for credit when topic changes. P-any course in SPA 310-SPA 319 sequence; or POI.

**SPA 367. Cuban Literature. (3 h)**

Study of Cuban literature from the 18th century to the present: romanticism, modernism, naturalism, the avant-garde movement, and the post-Revolutionary period. Offered in Havana. P-any course in SPA 310-SPA 319 sequence; or POI.

**SPA 368. Afro Cuban Cultural Expression. (3 h)**

Comprehensive study of Cuban culture with a concentration on the artistic manifestations of Afro-Cuban religions. Students study literature, art, film, music, and popular culture to analyze how Afro-Cuban culture constitutes national culture. Offered in Havana. Also listed as LAS 220C. P-any course in SPA 310-SPA 319 sequence; or POI. (CD)

**SPA 369. Special Topics in Literary and Cultural Studies. (1.5, 3 h)**

Selected special topics in Hispanic Spanish-American literature and culture. May be repeated for credit when topic changes. P-any course in SPA 310-SPA 319 sequence; or POI.

**SPA 370. History of the Spanish Language. (3 h)**

The development of Spanish from an early Romance dialect to a world language. Study of changes in the language's sounds, grammar, and vocabulary system, with a special focus on the effects of a cultural history and relationships with other languages. P-SPA 309 or 309L and (recommended) LIN 150/ANT 150, or SPA 320.

**SPA 371. Contrastive Spanish/English Grammar and Stylistics. (3 h)**

Advanced study of structure and style in a variety of Spanish texts, with an in-depth approach to idiomatic expressions and some back/cross translation exercises. P-SPA 309 or 309L and (recommended) LIN 150/ANT 150, or SPA 320.

**SPA 372. Acquisition of Spanish. (3 h)**

Comparative study of first language acquisition, adult second language acquisition, and heritage speaker bilingualism. Emphasis on stages of acquisition, influencing factors, and typical outcomes. P-SPA 309 or 309L; or POI.

**SPA 373. Language and Society. (3 h)**

An introduction to the study and methodologies of Spanish sociolinguistics. Emphasis on language and its interaction with socio-economic status, gender, age, ideology, governmental policy, and identity in Spanish-speaking communities. P-SPA 309 or 309L.

**SPA 379. Special Topics in Hispanic Linguistics. (3 h)**

Investigation of key areas in Spanish languages research, such as dialectology, history, language acquisition, and usage. May be repeated for credit. P-SPA 309 or 309L and (recommended) LIN 150/ANT 150, or SPA 320.

**SPA 380. Spanish for the Professions. (3 h)**

Spanish usage of a selected professional area. Emphasizes communication in typical situations and interactions, specialized vocabulary, cultural differences, and related technical readings in the subject matter. Topics offered from the following list: a. Health Occupations; b. Social Work; c. Law and Law Enforcement; d. Other (on demand). P-SPA 309 or 309L; and any course in SPA 310-SPA 329 sequence; and POI.

**SPA 381. Spanish Translation. (3 h)**

Introduces translation strategies through practice, with emphasis on Spanish into English. Focuses on translating in domains such as social science, computing, economics, the entertainment industry, banking, and journalism. P-SPA 309 or 309L; and any course in SPA 310-329 sequence; and SPA 371; or POI.

**SPA 382. Spanish/English Interpreting. (3 h)**

Introduces strategies of interpreting from Spanish into English, primarily. Intensive laboratory practice course to develop basic skills inconsecutive/escort/simultaneous interpreting. Some voice-over talent training is also included. P - SPA 309 or 309L; and any course in SPA 310-SPA 329 sequence; and senior standing or POI.

**SPA 383. Medical and Scientific Translation. (3 h)**

Introduces strategies for translation of documentation relevant to healthcare setting and scientific domains through applied projects. Study of textual conventions and creation of domain-specific resources to support translation process. P - SPA 309 or 309L; or POI.

**SPA 384. Internships for STL & SI. (1.5-3 h)**

Under faculty supervision, a student undertakes a translation/interpreting project at a translation bureau or translation department of a company/public organization. A community service-oriented internship is preferred for interpreting. Does not count toward major or minor. P-SPA 381 or 382.

**SPA 385. Special Topics in Translation. (3 h)**

Selected topics in Translation Studies ranging from translation theories and descriptive studies to applied translation and related areas such as, terminology, documentation and language industries, among other relevant fields. May be repeated if course content differs. P-SPA 309 or 309L; and any course in SPA 310-SPA 329, or SPA 371 or POI.

**SPA 386. Special Topics in Interpreting. (3 h)**

Selected topics in Interpreting Studies including different interpreting settings, specialized interpreting, terminology for interpreting. May be repeated if content differs. P-SPA 309 or 309L; and any course SPA 310-SPA 329 sequence, or SPA 371 or POI.

**SPA 387. Cultural Industries and Institutions in Spain and Spanish America. (3 h)**

Study of key cultural traditions and theories of art and cultural economics, focusing on international cooperation, business and law, and on the construction of intercultural and professional identities. P-SPA 309 or 309L; and any course in SPA 310-SPA 329 sequence, or SPA 371 or POI.

**SPA 388. Global Negotiation and Conflict-Management Skills in a Spanish-Speaking Setting. (3 h)**

Examines through case studies topics such as “power with” vs. “power over” in international negotiation strategies; negotiation power, influence, and trust in a Spanish and Spanish-American context; and cultural, situational, and social factors of virtual negotiations. P- SPA 309 or 309L; and any course in SPA 310-SPA 329 sequence, or SPA 371 or POI.

**SPA 390. International Business: Spain and Latin America. (3 h)**

Study of the most characteristic features of the economic and financial situation and perspectives in Spain and Latin America. Focuses on communicating successfully in the world of Hispanic business and on acquiring an international view of that world and its cultural differences. Counts as elective for the Spanish major. P-SPA 309 or 309L; or POI.

**SPA 391. Internship in Spanish for Business and the Professions. (1.5-3 h)**

Under faculty supervision, a student completes an internship in a bilingual business or professional setting. Does not count toward major or minor in Spanish. Pass/Fail only. P-SPA 309 or 309L; or POI.

**SPA 397. Spanish Independent Study. (1-3 h)**

P-POI.

**SPA 398. Honors Directed Reading and Research. (1.5 h)**

Required for honors in Spanish. P-POI.

**SPA 399. Honors Directed Writing. (3 h)**

Required for honors in Spanish. P-POI.

## Faculty

**Chair** Kathryn Mayers

**Professors** Jane W. Albrecht, Ola Furmanek, Luis González, Soledad Miguel-Prendes, Roberta Morosini, José Luis Venegas

**Associate Professors** Irma Alarcón, Diego Burgos, Andrea Echeverría, Margaret Ewalt, Jerid Francom, Anne Hardcastle, Linda S. Howe, Tiffany Judy, Rémi Lanzoni, Kathryn Mayers, María Teresa Sanhueza

**Assistant Professors** Sara Fernández Cuenca, César Gutiérrez, Samanta Ordóñez, Nicholas Wolters

**Professor of the Practice** Rebekah Morris

**Associate Teaching Professor** Silvia Tiboni-Craft

**Associate Professor of the Practice** Encarna Turner

**Assistant Teaching Professors** Alison Atkins, Bruce Cole, Claudia Francom, Lauren Miller, Carmen Pérez-Muñoz, Jessica Shade Venegas, John Welsh

**Assistant Professor of the Practice** Liliana Mendoza-Batista

**Visiting Assistant Professors** Sarah Bogard, Daniel Castelblanco, DeOnna Reliford, Boston Woolfolk

**Salamanca, Spain: On-Site Director** Javier G. Garrido

**Cultural Assistant** Fernando Díaz

## Spanish, B.A.

### Requirements

Requires a minimum of 28 hours in Spanish courses numbered 280 and above. It must include:

Code	Title	Hours
<b>Required Major Courses</b>		
SPA 280	The Spanish-Speaking World: Portals and Perspectives	3
SPA 309	Grammar and Composition *	4

or SPA 309L	Grammar and Composition for Heritage Speakers of Spanish	
Select one of the following Genre Courses:		3
SPA 310	Anecdotes, Bestsellers, Cuentos. The ABCs of Storytelling in the Spanish-Speaking World	
SPA 311	Bard, Ballad, Bolero. Poetry, and Song in the Spanish-Speaking World	
SPA 312	Page, Stage, and Performance. Theater and Drama of the Spanish-Speaking World	
SPA 313	Lights, Camera, ¡Acción!. Cinema and Culture in the Spanish-Speaking World	
Select one of the following Regions Courses:		3
SPA 315	The Making of Spain: Interdisciplinary Approaches to the Cultures of Spain	
SPA 316	Paradise in Perspective: An Interdisciplinary Approach to the Wider Caribbean	
SPA 317	Distant Neighbors: Interdisciplinary Approaches to Mexico and Central America	
SPA 318	The Andes to Patagonia: Interdisciplinary Approaches to South American Culture	
SPA 319	Literary and Cultural Studies of Spanish America	
Select six hours from SPA 330 - SPA 395		6
Select nine hours of Electives credits from Spanish classes numbered above 280 *		9

\* *Students must achieve at least a C grade in SPA 309 or SPA 309L. SPA 309 or SPA 309L must be taken on the Reynolda or Salamanca campus.*

\*\* *No more than 10 hours may be counted from courses numbered SPA 280-SPA 309.*

Students must achieve a GPA of 2.0 in the major.

## Honors

The honors designation in Spanish is a recognition of outstanding scholarship in the field, as evidenced by academic achievement, critical thinking, and intellectual initiative. Highly qualified majors selected by the faculty are invited to participate in the honors program, which candidates undertake in addition to the requirements for the major.

The honors program requires completion of:

1. SPA 398 (Directed Reading, 1.5h)
2. SPA 399 (Directed Research, 3h)
3. Directed Reading, normally taken during the fall semester of the student's final year, includes reading and discussion of a number of texts on the selected topic, and a written exam covering these texts. At the end of fall semester, the student submits an annotated bibliography and an abstract of the honors thesis.
4. Directed Research, taken during the student's final semester, consists of writing the thesis following a schedule established by the director and the student.

At the end of this course, the honors student defends the thesis orally before appropriate faculty who collectively may confer honors.

## Italian Language and Culture, Minor Requirements

Requires 15 hours in Italian courses to include:

Code	Title	Hours
ITA 212	Exploring the Italian World	3
or ITA 213	Introduction to Italian Literature	
ITA 319	Grammar and Composition	3
Two additional 300-level ITA courses		
One elective above ITA 213		

\* *Students must achieve at least a C grade in ITA 319.*

Students must achieve a GPA of 2.0 in the minor.

## Spanish, Minor Requirements

Requires a minimum of 19 hours in Spanish courses numbered 280 and above. It must include:

Code	Title	Hours
SPA 280	The Spanish-Speaking World: Portals and Perspectives	3
SPA 309	Grammar and Composition *	4
or SPA 309L	Grammar and Composition for Heritage Speakers of Spanish	
Select one of the following Genre courses:		3
SPA 310	Anecdotes, Bestsellers, Cuentos. The ABCs of Storytelling in the Spanish-Speaking World	
SPA 311	Bard, Ballad, Bolero. Poetry, and Song in the Spanish-Speaking World	
SPA 312	Page, Stage, and Performance. Theater and Drama of the Spanish-Speaking World	
SPA 313	Lights, Camera, ¡Acción!. Cinema and Culture in the Spanish-Speaking World	
Select one of the following Regions course:		3
SPA 315	The Making of Spain: Interdisciplinary Approaches to the Cultures of Spain	
SPA 316	Paradise in Perspective: An Interdisciplinary Approach to the Wider Caribbean	
SPA 317	Distant Neighbors: Interdisciplinary Approaches to Mexico and Central America	
SPA 318	The Andes to Patagonia: Interdisciplinary Approaches to South American Culture	
SPA 319	Literary and Cultural Studies of Spanish America	
Select three credit hours from SPA 330 - SPA 395		3
Select three additional hours of elective credit from Spanish classes numbered above 280 **		3

\* *Students must achieve at least a C grade in SPA 309 or SPA 309L. SPA 309 or SPA 309L must be taken on the Reynolda or Salamanca campus.*

**\*\*** No more than 10 hours may be counted from courses numbered SPA 280-SPA 309.

Students must achieve a GPA of 2.0 in the minor.

## Italian Studies

### Requirements

Foreign Area Study

**Coordinator, Professor of Romance Languages** Roberta Morosini

A semester in Venice or another approved course of study in Italy (or summer program at Middlebury, Vermont) is required.

Code	Title	Hours
ITA 212	Exploring the Italian World	3
or ITA 213	Introduction to Italian Literature	
ITA 319	Grammar and Composition	3
Select three courses from the following groups: *		9
I. Literature		
II. Fine Arts		
III. History and the Social Sciences		

\* At least one each from Groups II and III.

Additional elective courses may have been approved since publication of this bulletin. The program coordinator maintains a complete list of all approved elective courses. For course descriptions, see the relevant department's listings in this publication.

### I. Literature

Code	Title	Hours
CLA 264	Greek & Roman Comedy	3
COM 370	Special Topics (when topic is Tree Italian Masters)	3
HMN 213	Studies in European Literature (appropriate topics and approval)	3
IAS 325	Italian Neorealism in Films and Novels	3
ITA 326	Comedy in Italian Cinema	3
ITA 327	Modern Italian Cinema	3

### II. Fine Arts

Code	Title	Hours
ART 245	Art and Architecture of the Roman World	3
ART 268	16th Century Art in Italy: Magnificence and Reform	3
ART 269	Venetian Renaissance Art (offered in Venice)	3
ART 396	Art History Seminar (when topic is Three Italian Masters)	4
MUS 181	Music History I	3
MUS 182	Music History II	3
MUS 220	Seminar in Music History	3

## III. History and the Social Sciences

Code	Title	Hours
HST 225	History of Venice (offered in Venice)	3
HST 229	Venetian Society & Culture (offered in Venice)	3
HST 398	Individual Study (if directed toward Italy)	1-3

Students may also take appropriate courses in other disciplines in the Venice program and appropriate individual study topics. To graduate with a Certificate in Italian Studies, students must contact the Registrar's Office during the spring semester of the senior year to request that a transcript copy be sent to the Department of Romance Languages for approval.

## Spanish Studies

### Requirements

Foreign Area Study

Students are required to participate in the Spanish program at Salamanca for one or two semesters. They also are required to take:

Code	Title	Hours
HST 216	General History of Spain (taught in Salamanca)	3
POL 202	Political Structures of Present-day Spain (taught in Salamanca)	3
ART 230	Spanish Art and Architecture (taught in Salamanca)	3
SPA 315	The Making of Spain: Interdisciplinary Approaches to the Cultures of Spain (taught in Salamanca)	3

Select nine additional hours from the advanced courses in Spanish language and the literature and culture of Spain offered by the Department of Spanish and Italian, or from those offered at the University of Salamanca

## Spanish for Business, Concentration

### Requirements

Teaches general concepts and skills necessary to perform effectively in professional international business settings. Requirements include:

Code	Title	Hours
Select two of the following:		6
SPA 325	Spanish for Business I	
SPA 326	International Business: Spain/Latin America	
SPA 327	Spanish for Business II	
Select one course from the following Options:		3
Option 1:		
SPA 315	The Making of Spain: Interdisciplinary Approaches to the Cultures of Spain	
SPA 316	Paradise in Perspective: An Interdisciplinary Approach to the Wider Caribbean	

SPA 317	Distant Neighbors: Interdisciplinary Approaches to Mexico and Central America
SPA 318	The Andes to Patagonia: Interdisciplinary Approaches to South American Culture
SPA 319	Literary and Cultural Studies of Spanish America
Option 2:	
SPA 381	Spanish Translation

## Spanish for Health Professions, Concentration

### Requirements

Teaches medical and cultural concepts and prepares students to use Spanish in a healthcare setting. Requirements are the following:

Code	Title	Hours
SPA 328	Medical Spanish	3
SPA 382	Spanish/English Interpreting	3
SPA 383	Medical and Scientific Translation	3
or SPA 371	Contrastive Spanish/English Grammar and Stylistics	

## Spanish Interpreting, Concentration

### Requirements

SI teaches strategies for different types of Spanish/English interpreting. Includes an internship. Requirements include:

Code	Title	Hours
SPA 382	Spanish/English Interpreting	3
SPA 384	Internships for STL & SI	1.5-3

Select one course in SPA 330- SPA 369

Select one of the following: 3

SPA 322	Spanish pronunciation and Dialect Variation
SPA 328	Medical Spanish
SPA 381	Spanish Translation
SPA 383	Medical and Scientific Translation
SPA 387	Cultural Industries and Institutions in Spain and Spanish America
SPA 388	Global Negotiation and Conflict-Management Skills in a Spanish-Speaking Setting
SPA 371	Contrastive Spanish/English Grammar and Stylistics
LIN 383	Language Engineering: Localization and Terminology

Students must achieve a grade of minimum B- in each course in this concentration track.

## Spanish Translation/Localization, Concentration

### Requirements

STL teaches strategies of Spanish into English translation and introduces students to various software/website translation applications. Includes an internship in a professional translation environment. Requirements include:

Code	Title	Hours
SPA 371	Contrastive Spanish/English Grammar and Stylistics	3
SPA 381	Spanish Translation	3
LIN 383	Language Engineering: Localization and Terminology	3
SPA 384	Internships for STL & SI	1.5-3
Select one of the following:		3
SPA 382	Spanish/English Interpreting	
SPA 387	Cultural Industries and Institutions in Spain and Spanish America	
SPA 388	Global Negotiation and Conflict-Management Skills in a Spanish-Speaking Setting	

Students must achieve a grade of minimum B- in each course in the concentration track.

## Summer Programs and Study Abroad

### Summer Programs for the Language Requirement

- Intensive Summer Language Institute (ISLI) (<https://bulletin.wfu.edu/courses-instruction/spanish-italian/summer-programs-study-abroad/isli/>)
- Salamanca 212 Program (<https://bulletin.wfu.edu/courses-instruction/spanish-italian/summer-programs-study-abroad/spa212salamanca/>)

### Study Abroad Programs in Spanish

- Salamanca, Spain (spring or fall) (<https://bulletin.wfu.edu/courses-instruction/spanish-italian/summer-programs-study-abroad/salamanca/>)
- Buenos Aires, Argentina and Santiago, Chile (spring only) (<https://bulletin.wfu.edu/courses-instruction/spanish-italian/summer-programs-study-abroad/southern-cone/>)
- Havana, Cuba (summer) (<https://bulletin.wfu.edu/courses-instruction/spanish-italian/summer-programs-study-abroad/cuba/>)
- Salamanca, Spain (summer) (<https://bulletin.wfu.edu/courses-instruction/spanish-italian/summer-programs-study-abroad/salamanca-internship/>)

### Study Abroad Programs in Italian

- Venice, Italy: Casa Artom (spring or fall) (<https://bulletin.wfu.edu/courses-instruction/spanish-italian/summer-programs-study-abroad/casa-artom/>)



- Sorrento, Italy (summer) (<https://bulletin.wfu.edu/courses-instruction/spanish-italian/summer-programs-study-abroad/sorrento/>)

## Casa Artom Program

Students have the opportunity to study and live at Casa Artom situated along the Grand Canal in Venice. Each semester or summer session, a resident professor leads a group of up to 20 students and offers two courses in his or her respective discipline. Resident professors are chosen from a wide variety of academic departments. In addition, Venetian professors offer courses in the study of Italian language or literature, Italian art and architecture, history, and economics to help students integrate into the local culture. Group excursions throughout Venice and in surrounding cities enhance the learning experience as well as numerous integrative experiences within the city itself. Prior study of Italian language is not required, but may be determined by the resident professor. Further information may be obtained from the program director, professor Peter Kairoff, in the Department of Music. Applications available (<http://studyabroad.wfu.edu/program/?pid=373&program=wfu-venice-casa-artom-b>) at the Office for Global Programs and Studies.

## Cuba Program

The Cuba program is for students interested in studying arts and social entrepreneurship in the beautiful city of Havana. Students go as a group in the first summer term and take one or two of the courses listed below. No particular major is required for eligibility. Students must have completed SPA 280 or received POI. The program includes day trips to sites of cultural and historical interest in and outside the capital. Students are housed in hotels and private homestays.

Code	Title	Hours
SPA 198	Service Learning in Spanish Language	1.5
SPA 329	Intermediate Topics in Literary and Cultural Studies	3
SPA 369	Special Topics in Literary and Cultural Studies	1.5,3

Program Director: Linda Howe ([howels@wfu.edu](mailto:howels@wfu.edu))

Applications available (<http://studyabroad.wfu.edu/program/?pid=2126&program=wfu-cuba-cuban-culture-and-society-summer-b>) at the Office for Global Programs and Studies.

## Intensive Summer Language Institute (ISLI)

ISLI (Intensive Summer Language Institute) in Spanish is an accelerated, on-campus language program. Students take SPA 153 and SPA 213 concurrently during the first summer term. Class size is reduced for individualized instruction. Requirements include 4 hours per day of class, 1-hour daily Spanish immersion activities with instructors in the target language, and co-curricular meals and activities two evenings per week.

Program Director: Liliana Mednoza-Batista ([mendozil@wfu.edu](mailto:mendozil@wfu.edu))

Find more information here (<http://spanishitalian.wfu.edu/isli/>).

## Salamanca 212 Program

The Salamanca 212 Program is for students interested in finishing the Spanish language requirement in an immersion setting. Students travel to the beautiful university of city of Salamanca in the first summer term and take SPA 212. No particular major is required for eligibility. Students may be of any class standing and must have completed SPA 153 or SPA 154. The program includes day trips to cities of cultural and historical interest. Students typically live with host families.

Program Director: Kathryn Mayers ([mayerskm@wfu.edu](mailto:mayerskm@wfu.edu))

Electronic application available at the Center for Global Programs and Studies (<http://studyabroad.wfu.edu/program/?pid=4487&program=wfu-salamanca-spanish-language-literature-and-culture-spa-212-summer-i-b>).

## Salamanca Immersion Program

The Salamanca Immersion Program is for students interested in studying Spanish language and culture at one of Europe's oldest and most prestigious universities. Students go as a group in the fall and/or spring semesters. No particular major is required for eligibility. Students are normally of sophomore, junior, or senior standing and must have completed one course beyond SPA 212 or SPA 213.

Students typically take 4-6 courses during the semester. SPA 301 is required. Students may choose to do an internship (SPA 199). SPA 301 and SPA 199 are Pass/Fail and do not count towards a Spanish major or minor. The program includes 2-3 weeks of travel to cities of cultural and historical interest. Students typically live with host families.

Courses in the Spanish major/minor that are offered every semester include:

Code	Title	Hours
SPA 309	Grammar and Composition	4
SPA 313	Lights, Camera, ¡Acción!. Cinema and Culture in the Spanish-Speaking World	3
SPA 315	The Making of Spain: Interdisciplinary Approaches to the Cultures of Spain	3
SPA 319	Literary and Cultural Studies of Spanish America	3
SPA 326	International Business: Spain/Latin America	3
SPA 328	Medical Spanish	3
SPA 332	The Golden Age of Spain	3
SPA 334	Voices of Modern Spain	3
ART 230	Spanish Art and Architecture	3
HST 216	General History of Spain	3
POL 202	Political Structures of Present-day Spain	3

A number of additional courses (<http://studyabroad.wfu.edu/program/?pid=372&program=wfu-salamanca-b>) in other divisions are available contingent on minimum enrollment. All courses are offered in Spanish.

Program director: Kathryn Mayers ([mayerskm@wfu.edu](mailto:mayerskm@wfu.edu))

Applications available (<http://studyabroad.wfu.edu/program/?pid=372&program=wfu-salamanca-b>) at the Center for Global Programs and Studies.

## Salamanca Internship Program

The Salamanca Internship Program is for students interested in improving their Spanish by working in a professional setting abroad. Student go during the first or second summer term and receive academic credit for an internship in one of a wide range of fields, including medicine, business, education, translation, interpreting, sports, political science, and sociology. No particular major is required for eligibility. Students must have completed one course beyond SPA 212 or SPA 213.

Students in the internship program typically take a 3h internship along with one other course listed below. The program includes several day trips to cities of cultural and historical interest. Students typically live with host families.

Courses in the Spanish major/minor available to summer internship students include:

Code	Title	Hours
SPA 199	Internship in Spanish Language	1.5,3
SPA 303I	Language Study in the Context of an Internship	1.5,3
SPA 315	The Making of Spain: Interdisciplinary Approaches to the Cultures of Spain	3
SPA 319	Literary and Cultural Studies of Spanish America	3
SPA 369	Special Topics in Literary and Cultural Studies	1.5,3
SPA 391	Internship in Spanish for Business and the Professions	1.5-3

Program Director: Kathryn Mayers (mayerskm@wfu.edu)

Applications available (<http://studyabroad.wfu.edu/program/?pid=745&program=wfu-salamanca-internship-program-summer-i-b>) at the Center for Global Programs and Studies

## Sorrento Program

The Sorrento Program is for students interested in studying Italian in a picturesque coastal town in the south of Italy. Students go as a group in the first summer term and take an Italian language course (ITA 112, ITA 154, or ITA 212) at the Sant' Anna Institute and a course on Italian Literature in English (D II) taught by a WFU professor. No prior study of Italian is required for eligibility. Students typically live with host families.

Applications available (<http://studyabroad.wfu.edu/program/?pid=3067&program=wfu-sorrento-italian-language-study-summer-b>) at the Office for Global Programs and Studies.

## Southern Cone (SoCo) Program

The Southern Cone Program is for students interested in studying Spanish and a range of topics related to Latin America in two different capital cities of South America. The program begins with a three-week culture course in Buenos Aires, Argentina, followed by a full semester in Santiago, Chile. No particular major is required for eligibility. Students are normally of sophomore or junior standing.

Students typically take 5-6 courses during the semester. HMN 186 and one course taught by the Resident Professor are required. Students may choose to do an internship. The program includes 2-3 weeks of travel to

sites of cultural and historical interest. Students typically live with host families.

Courses in the Spanish language sequence that are offered as needed include:

Code	Title	Hours
SPA 111	Elementary Spanish I	3
SPA 112	Elementary Spanish II	3
SPA 154	Accelerated Intermediate Spanish	3
SPA 213	Encounters: Hispanic Literature and Culture	4

Courses in the Spanish major/minor that are offered as needed include:

Code	Title	Hours
SPA 303	Spanish Conversation	3
SPA 319	Literary and Cultural Studies of Spanish America	3

Courses in the Spanish major/minor that are offered on a rotating basis include:

Code	Title	Hours
COM 270	Special Seminar (Cine Chileno: Una Visión de la Historia (1940-1979) )	3
POL 242	Topics in Comparative Politics	3

Additional courses (<http://studyabroad.wfu.edu/program/?pid=1584&program=wfu-southern-cone-chile-argentina-b>) in English and Spanish are available on a rotating basis.

Program Director: Peter Siavelis (siavelpm@wfu.edu)

Applications available (<http://studyabroad.wfu.edu/program/?pid=1584&program=wfu-southern-cone-chile-argentina-b>) at the Center for Global Programs and Studies

## Theatre and Dance (THE/DCE)

The Department of Theatre and Dance offers students an exceptional education in theatre and dance, and plays an integral role in the Wake Forest community. We are a creative and collegial department that values close working relationships between students and faculty, that sees the arts as integral to a liberal arts education, and that prizes intellectual discipline as well as free thinking and expression. We aspire to create exceptional artist/scholars, exploring through classes and productions intersections of theatre and dance with other realms of study, and giving expression to humanity's foremost social and intellectual concerns.

We promote inclusivity, intellectual curiosity, innovation, dialogue, and problem-solving skills. And we believe that artistic commitment, personal development, responsibility to one's community, and academic rigor can all coexist.

Each season, the department mounts four subscription series productions, two dance concerts, and numerous student-directed and designed pieces. Students learn through work on productions—whether in the rehearsal hall or shop—as well as through classwork in acting and directing, dance technique, choreography, design, playwriting, voice and movement, history, dramatic literature, performance art, theatre education, and technical theatre.

Students with both academic and artistic ability will find a comfortable home at Wake Forest University. Our students work closely with a

vigorous faculty on a wide variety of projects. They enjoy the benefits of a nationally ranked university with small classes, impressive facilities, and an active theatre and dance program, and they grow as both scholars and artists. College is for learning—through books and lectures, certainly, but also through self-exploration and creative expression. We at Wake Forest believe that excellence in both arts and academics is not only possible but also desirable. Myriad student theatre, dance, and performance groups on campus contribute to a vital educational environment for the study of performance.

## Contact Information

Department of Theatre and Dance (<http://college.wfu.edu/theatre/>)  
Scales Fine Arts Center 219, Box 7264  
Phone 336-758-5294

## Programs

### Major

- Theatre, B.A.

### Minors

- Dance, Minor
- Theatre, Minor

## Courses

### Dance (DCE)

#### DCE 101. Beginning Tap Dance. (2 h)

Fundamentals of tap dance technique with an emphasis placed on technique, rhythm, vocabulary, and performance qualities. May be taken two times for credit.

#### DCE 120. Beginning Modern Dance Technique. (2 h)

Fundamentals of modern dance technique, with an emphasis placed on movement concepts, vocabulary, technique, alignment, placement, and flexibility. May be taken two times for credit.

#### DCE 122. Special Topics in Dance. (1-3 h)

An intensive study of selected topics in dance. May be repeated.

#### DCE 123. Introduction to Dance Composition. (2 h)

Introduction to the fundamental study of improvisation, composition and choreography. P-DCE 221, 226, or DCE 227; or POI.

#### DCE 124. Social Dance. (1.5 h)

Fundamental techniques of social dance, providing basic skills, concepts of movement, style and fundamental step patterns found in social dance rhythms. Students will learn basic smooth dances, rhythm dances, Latin-American dances and Cuban dances.

#### DCE 125. Folk and Social Dance. (1.5 h)

Fundamentals of folk and social dance, providing the basic skills, concepts of movement, style and fundamental step patterns of folk and social dance. Emphasis is on the development of fundamental dance skills and practice in utilizing dance techniques.

#### DCE 126. Beginning Jazz Dance. (2 h)

Fundamentals of jazz technique with an emphasis on alignment, isolations, flexibility, basic turns, jumps, and combinations. May be taken two times for credit.

#### DCE 127. Beginning Classical Ballet Techniques. (2 h)

Fundamentals of classical ballet technique with an emphasis on alignment, placement, flexibility, barre work, adagio and petite allegro. May be taken two times for credit and two times Pass/Fail.

#### DCE 128. Dance Performance. (1 h)

Practical experience in the areas of rehearsal, production, and performance, as a performer in the Fall or Spring Dance Concert. May be taken up to four times for credit.

#### DCE 129. Choreography. (1 h)

Practical experience in the areas of rehearsal, choreography production and performance as a choreographer in the Spring Dance Concert. May be taken only once.

#### DCE 130. Movement for All. (1.5 h)

A beginning level dance class for all students that surveys jazz, modern and/or ballet techniques. Emphasis on flexibility, coordination, and efficiency of movement. Eight week course.

#### DCE 131. African Dance. (1.5 h)

Designed to develop basic West African dance technique, build students' musicality and performance skills and create an awareness of African culture. May be taken 2 times for credit.

#### DCE 133. Hip Hop Dance. (1.5 h)

Fundamentals of Hip Hop dance technique. May be taken 2 times for credit.

#### DCE 150. Design and Production for Dance. (2 h)

Introduction to the fundamentals of lighting, sound editing, dance floor installation, costumes and stage management for dance performance. Credit not allowed for both DCE 150 and THE 150. P-POI.

#### DCE 200. Senior Dance Project. (2 h)

An investigation of selected semi-professional problems involving the creative process of choreography, study of notation, research idea, or production.

#### DCE 201. Intermediate Tap Dance. (2 h)

A progressive development of technique and vocabulary from DCE 101, with an emphasis on exploring rhythm, dynamics and performance qualities. May be taken four times for credit. P-DCE 101 or POI.

#### DCE 202. History of Dance. (3 h)

A survey of the development of dance as a performing art from the Renaissance to the present with an emphasis on scope, style and function. (D)

#### DCE 203. 20th-Century Modern Dance History. (3 h)

Exploration of the history of modern dance from Isadora Duncan to contemporary modern dance trends in the U.S. and abroad. (D)

#### DCE 205. Improvisation. (2 h)

An investigation of the art and technique of improvised dancing. The course borrows from visual art, poetry, literature, theatre, and music as catalysts for original movement generation. P-DCE 120 or 221.

#### DCE 221. Intermediate Modern Dance Technique. (2 h)

A progressive development of movement concepts and vocabulary from DCE 120, with an emphasis on exploring both the classical and contemporary techniques of modern dance. May be taken four times for credit. P-DCE 120 or POI.

#### DCE 222. Advanced Modern Dance Technique. (2 h)

A progressive development of the concepts of DCE 221 with an emphasis on qualitative performance, virtuosity and versatility in a variety of technical forms within the modern dance discipline. May be taken four times for credit. P-DCE 221 or POI.

**DCE 223. Dance Composition. (3 h)**

Fundamental study of improvisation, composition, and choreography. P - DCE 221, 226, 229, or POI.

**DCE 224. Advanced Social Dance. (1.5 h)**

Progressive development of technique in rhythm, dance hold, footwork and patterns of ballroom and Latin dance. Emphasis on performance and competitive dance styles. May be taken two times for credit. P-DCE 124 or POI.

**DCE 226. Intermediate Jazz Dance. (2 h)**

This course pursues the mastery of basic jazz technique along with more complex center floor combinations. Emphasis is placed on performance qualities and musicality. May be taken four times for credit. P-DCE 126 or POI.

**DCE 227. Advanced Jazz Dance. (2 h)**

Pursues the mastery of jazz technique along with more complex center floor combinations. Emphasis is placed on performance qualities, musicality, technique, virtuosity, and creativity. May be taken four times for credit. P-DCE 226 or POI.

**DCE 229. Intermediate Classical Ballet. (2 h)**

Pursues the mastery of basic ballet technique along with more complex barre and center combinations, performance qualities, and musicality. May be taken four times for credit. P-POI.

**DCE 231. Advanced Classical Ballet. (3 h)**

Continues the mastery of basic ballet technique along with more complex barre and center combinations, performance qualities, musicality and pointe work. May be taken four times for credit. P-POI.

**DCE 233. Advanced Studio Classical Ballet. (3 h)**

Professional level pace of ballet technique. Complex barre and center combinations as well as more advanced pointe work in class. May be taken 4 times for credit. P-POI.

**DCE 235. Ballet Repertory. (2 h)**

An intermediate and advanced level technique class focusing on the development and performance of classical and contemporary ballet repertoires. May be repeated 4 times for credit. P-DCE 229 or POI.

**DCE 236. Multi-Ethnic Dance. (3 h)**

Exploration of the cultural importance of dance in major ethnic groups in American society. Also listed as AES 236. (CD)

**DCE 241. Advanced Tap Dance. (2 h)**

A progressive development of the concepts of DCE 201 with an emphasis on qualitative performance, virtuosity and versatility in a variety of technical forms within the tap dance discipline. May be taken four times for credit. P-DCE 201 or POI.

**DCE 285. Internship in Dance. (1-3 h)**

Internship, approved by the department, to be carried out under the supervision of a departmental faculty member, designed to meet the proposing student's needs and interests related to their study of dance. Requirements may include an evaluative paper and public presentation. Normally one course in an appropriate sub-filed is taken prior to the internship. P-POI.

**DCE 294. Individual Study. (1-3 h)**

Research and readings in an area of interest to be approved and supervised by a faculty adviser. May be taken for a total of not more than 3 hours. P-POI.

## Theatre (THE)

**THE 100. Participation. (0.5 h)**

Attendance/participation in Mainstage and Studio performances and other events as established by the department. Specific attendance/participation requirements will be established at the beginning of each semester. Assignments for technical production are made through consultation with the technical and design faculty. May be repeated for credit. P-POI.

**THE 110. Introduction to Western Theatre. (3 h)**

Survey of the theory and practice of the major disciplines of Western theatre art: acting, directing, playwriting, and design. Optional lab- THE 110L. (D)

**THE 110L. Intro to Theatre-Lab. (1 h)**

Participation in production team on Mainstage as assigned. P or C- THE 110 or 111 and POI.

**THE 111. Introduction to Theatre. (3 h)**

Survey of the theory and practice of the major disciplines of theatre art: acting, directing, playwriting and design. Includes theatre practices from non-Western traditions. Optional lab – THE 110L. (D)

**THE 125. Basic Voice and Movement for non-Majors. (3 h)**

Introduction to basic voice and movement technique. May include topics such as breathing, healthy vocalization, articulation, vocal expressiveness and energy, alignment, tension release, kinesthetic awareness, basic anatomy. Does not count toward Major.

**THE 126. Stage Makeup. (1.5 h)**

A study of the design and application of theatrical makeup in relationship to historical period and character development.

**THE 140. Acting I. (3 h)**

Fundamental acting theory and techniques including exercises, monologues and scene work.

**THE 144. Mime. (2 h)**

An introductory study of basic mime forms. The student will gain skills and understanding of this theatrical form through practical exercises, readings, rehearsals, and performances.

**THE 145. Voice and Movement. (3 h)**

Building awareness of the actor's instrument through the development of basic vocal and physical skills, emphasizing relaxation, clarity, expressiveness, and commitment, along with spontaneity, centering, and basic technical skills. Counts toward Major. P-THE 140.

**THE 150. Introduction to Design and Production. (4 h)**

Introduction to the fundamentals of theatrical design and technology including script analysis, design development, and presentation methods. Through the lab, the student develops basic skills in theater technology. Credit not allowed for both DCE 150 and THE 150. Lab-3 hours. (D)

**THE 155. Stagecraft. (3 h)**

This introductory course focuses on contemporary materials, construction methods, and rigging practices employed in the planning, fabrication and installation of stage scenery. Emphasis on using current technologies for problem solving.

**THE 181. Acting Workshop. (1 h)**

Scene work with student directors. Pass/Fail only.



**THE 188. The Contemporary English Theatre. (1 h)**

Explores the English theatre through theatre attendance in London and other English theatre centers. Readings, lectures. Participants submit reviews of the plays and complete a journal of informal reactions to the plays, the sites and the variety of cultural differences observed. Two weeks. Offered in London before spring term. Pass/fail only. P-POI.

**THE 230. Advanced Dynamics. (3 h)**

Focus on opening and strengthening the actor's instrument by building on work done in THE 145. P-THE 145.

**THE 240. Class Act. (3 h)**

Interdisciplinary theatre class that moves dramatic literature from page to stage as students prepare and present scenes used in courses throughout the University. P-THE 140 or POI. (D)

**THE 241. Acting for the Camera. (3 h)**

Introduces the theory and practice of acting for the camera. Focused on film/video/TV acting, may also include commercials and other formats. Basic knowledge of realistic acting required. P - THE 140.

**THE 242. Performance Art. (3 h)**

This combined seminar and studio course examines the history, range and context of performance art. Through discussion and exploration, students learn techniques and approaches for exploring new relationships to body, voice, space and image, and to create original performance art works.

**THE 245. Acting II. (3 h)**

Advanced study and practice of the skills introduced in Acting I. P-THE 140 and 145. (D)

**THE 246. Period and Style. (3 h)**

Studies social customs, movement, dances, and theatrical styles relating to the performance of drama in historical settings as well as in period plays. Includes performances in class. P-THE 145 or 230 and THE 140. (D)

**THE 250. Theatrical Scene Design. (3 h)**

A study of the fundamental principles and techniques of stage design. Drafting, model building, perspective rendering, historical research, and scene painting will be emphasized. P-THE 150.

**THE 251. Costume Design. (3 h)**

Studies the fundamental principles and techniques of costume and makeup design with an emphasis on historical research in the context of the text. Explores the basics of costume rendering, materials, and costume construction. P-THE 150 or POI.

**THE 252. Lighting. (3 h)**

An exploration of the lighting designer's process from script to production. A variety of staging situations will be studied, including proscenium, thrust and arena production. P-THE 150.

**THE 253. Sound and Projections for Theatre. (3 h)**

Developing and executing sound design and projections designs for theatrical production from concept to integration into performance. Covers recording, content creation, digital editing, mixing, and playback. P - THE 150 or POI.

**THE 254. Scenic Art for Theatre. (3 h)**

Hands-on introduction to the tools and techniques employed by scenic artists for contemporary stage and film. Includes an introduction to sculpting as well as a variety of projects and exercises in decorative and figurative painting. P-THE 110 or 111 and 150, or POI.

**THE 255. History of Costume. (3 h)**

Surveys the development of clothing and fashion with emphasis on historical and cultural influences and their application to costuming art. (D)

**THE 258. Stage Management. (1.5 h)**

Examines the role of the stage manager in theatre and other venues. Consideration of approaches, philosophy, nuts and bolts. Exploration of the responsibilities of the stage manager from auditions through rehearsals, techs, and performances including extended runs and touring and the key relationships therein with director, performer, designer and producer. P-THE 110 or 111 and 150.

**THE 259. Theater Management: Principles and Practices. (3 h)**

This course reviews the development of theater management in the United States, with emphasis on the role of the producer; explores commercial and not-for-profit theater with attention to planning, personnel, and the economics of theater. Includes readings, lectures, and reports. P-THE 110 or 111. (D)

**THE 265. The English Theatre, 1660-1940. (3 h)**

Studies the major developments in the English theater from the Restoration to World War II, including the plays, playwrights, actors, audiences, theater architecture, theater management, costumes and sets. Field trips include visits to theaters, museums, and performances. Also offered in London. (D)

**THE 266. Modern English and Continental Drama and the London Stage. (3 h)**

Studies the works of major playwrights of England and Europe from 1875 to the present. May also include contemporary production of classic plays. Particular emphasis will be placed on plays which are currently being presented in London theatres. Also offered in London. Also listed as ENG 347. (D)

**THE 270. Theatre in Education. (3 h)**

Practical experience for theater and education students to work together with children in the classroom using theatre to teach core curriculum. Emphasizes methods and techniques as well as the development and implementation of creative lesson plans. Weekly public school teaching experience and seminar. Also listed as Education 223.

**THE 274. World Theatre. (3 h)**

An exploration of non-U.S. Theatre, its histories, approaches, and applications. Study may include the theatre of East Asia, the Middle East, Africa, Latin America, and contemporary Europe, as well as non-English plays in translation. (CD, D)

**THE 283. Practicum. (1-1.5 h)**

Projects under faculty supervision. May be repeated for no more than three hours. P-Permission of the department.

**THE 285. Internship in Theatre. (1-3 h)**

Internship, approved by the department, to be carried out under the supervision of a departmental faculty member, designed to meet the proposing student's needs and interests related to their study of theatre. Requirements may include an evaluative paper and public presentation. Normally one course in an appropriate sub-filed is taken prior to the internship. P-POI.

**THE 290. Special Seminar. (1.5-3 h)**

The intensive study of selected topics in theater. May be repeated.

**THE 294. Individual Study. (1-3 h)**

Research and readings in an area of interest to be approved and supervised by a faculty adviser. May be taken for no more than three times for a total of not more than nine hours. P-POI.



**THE 295. Development and Performance. (1-4 h)**

An intensive experiential course designed to research and develop a theater piece resulting in performance. Focus will vary. May be repeated once for credit.

**THE 310. History of Western Theatre I. (3 h)**

Surveys of the development of Western theatre and drama through the Greek, Roman, medieval, and Renaissance theatres. Suitable for non-majors. (D)

**THE 311. History Western Theatre II. (3 h)**

Survey of Western theatre and drama including English Restoration, the eighteenth century, Romanticism, Realism, the revolts against Realism and the post-modern theatre. Suitable for non-majors. (D)

**THE 320. British Drama to 1642. (3 h)**

British drama from its beginning to 1642, exclusive of Shakespeare. Representative cycle plays, moralities, Elizabethan and Jacobean tragedies, comedies, and tragicomedies. Also listed as ENG 320.

**THE 323. Shakespeare. (3 h)**

Thirteen representative plays illustrating Shakespeare's development as a poet and dramatist. Also listed as ENG 323.

**THE 336. Restoration and Eighteenth-Century British Drama. (3 h)**

British drama from 1660 to 1780, including representative plays by Dryden, Etherege, Wycherley, Congreve, Goldsmith, and Sheridan. Also listed as ENG 336.

**THE 341. Directing I. (3 h)**

An introduction to the theory and practice of play directing. P-THE 140. C or P-THE 150.

**THE 342. Directing II. (3 h)**

Advanced study of the theory and practice of play directing. P-THE 140, 150, and 341. C or P-THE 250 or 251 or 252 or POI.

**THE 343. Studio Production. (1.5, 3 h)**

The organization, techniques and problems encountered in the production of a play for the public. May be repeated once. P - THE 150 and POI.

**THE 344. Acting Shakespeare. (3 h)**

A practical study of varying styles in interpreting and acting Shakespeare's plays from the time of the Elizabethans to the present day. P-THE 140 and 145. (D)

**THE 360. Playwriting. (3 h)**

This course will examine the elements of dramatic structure and their representations in a variety of dramatic writings. It will explore the fundamentals of playwriting through a series of writing exercises. Also listed as CRW 384.

**THE 372. Contemporary Drama. (3 h)**

The course will consider varieties of form and substance in plays and performance texts from Godot to the present. Readings will cover such playwrights as Beckett, Pinter, Stoppard, Churchill, Wertenbaker, Albee, Shepard, Fornes, Mamet, Wilson, Soyinka, Fugard, and Foreman. Also listed as ENG 394.

**THE 373. Women Playwrights. (3 h)**

Examination of selected plays and/or performance texts by women. Focus varies, for example, looking at works by contemporary American women or early women dramatists such as Hrosvitha, Sor Juana, and Aphra Behn. Also listed as WGS 319. (CD)

**THE 374. Contemporary World Drama. (3 h)**

This course will consider varieties of form and substance in plays and performance texts from outside the mainstream of the Western theatrical tradition. Focus will vary, for example Asian and Asian-American playwrights or drama of the Middle East. (CD)

**THE 375. American Drama. (3 h)**

A historical overview of drama in the United States, covering such playwrights as Boucicault, Mowatt, O'Neill, Glaspell, Wilder, Williams, Miller, Hansberry, Albee, Shepard, Norman, Hwang, Vogel, Mamet, and Wilson. Also listed as ENG 375.

**THE 376. Multicultural American Drama. (3 h)**

Examines the dramatic works of playwrights from various racial and ethnic communities such as Asian American, Native American, African American, and Latino. The course will include consideration of issues, themes, style, and form. Also listed as ENG 393. (CD)

**THE 390. Special Seminar. (1-3 h)**

The intensive study of selected topics in the theater. May be repeated.

**THE 391. Special Seminar. (1-3 h)**

The intensive study of selected topics in the theater. May be repeated.

**THE 392. Special Topics in Dramatic Literature. (1-3 h)**

Intensive study of selected plays and/or performance texts.

**THE 393. Sp Top Dramatic Lit Cult Diver. (3 h)**

Intensive study of selected plays and/or performance texts, focusing on cultural differences - for instance, women playwrights, GLBT playwrights, or class-focused works. (CD)

**THE 395. Senior Seminar. (1 h)**

Preparation for further, post-graduation work and study in theatre. Highly recommended for theatre majors and minors.

**THE 399. Theatre Honors. (3 h)**

Tutorial involving intensive work in the area of special interest for qualified seniors who wish to graduate with departmental honors. P-POD.

## Faculty

**Department Chair** Professor Nina Maria Lucas Rice

**Director of University Theatre** Jonathan Christman

**Co-Directors of Dance**, Associate Professor of the Practice Christopher Martin, Brantly Shapiro

**Associate Chair and Associate Professor** Rob Eastman-Mullins

**Associate Professor, and Associate Provost for Arts and Interdisciplinary Initiatives** Christina Tsoules Soriano

**Professor and F.M. Kirby Family Faculty Fellow** Mary Wayne-Thomas

**Professors** Sharon Andrews, J.K. Curry, Brook Davis, Cindy Gendrich

**Assistant Professor** Kevin Fraizer

**Teaching Professor** Lynn Book

**Teaching Professor and Wright Family Faculty Fellow** Leah Roy

**Assistant Teaching Professors** Michael Kamtman, Tina Yarbrough-Liggins

**Visiting Lecturer in Dance** Sam Shapiro

**Teacher-Scholar Postdoctoral Fellow** Jeff Sherwood

**Adjunct Lecturers** Debbie Sayles, Michael Huie

## Theatre, B.A.

### Requirements

Consists of a minimum of 36 hours, including:

Code	Title	Hours
THE 110	Introduction to Western Theatre	3
or THE 111	Introduction to Theatre	
THE 140	Acting I	3
THE 145	Voice and Movement	3
THE 150	Introduction to Design and Production	4
Select one of the following:		3
THE 250	Theatrical Scene Design	
THE 251	Costume Design	
THE 252	Lighting	
THE 253	Sound and Projections for Theatre	
THE 310	History of Western Theatre I	3
THE 311	History Western Theatre II	3
THE 341	Directing I	3
Select a Dramatic Literature course		
Select one of the following Options:		2-2.5
Option 1:		
THE 100	Participation (four semesters)	
Option 2:		
THE 100	Participation (three semesters)	
THE 110L	Intro to Theatre-Lab	
Select the remaining courses from offerings in theatre, or select one of the following:		9
DCE 202	History of Dance	
DCE 203	20th-Century Modern Dance History	
DCE 223	Dance Composition	

A minimum GPA of 2.0 in all theatre courses attempted is required for graduation. Majors will participate in senior assessment, including submission of a portfolio. Majors should consult with their advisers about additional regulations. No more than three hours of THE 294 may be counted toward the 36 hours required for the major; up to a maximum of nine hours or three courses of THE 294 may be counted beyond the 36 hours in the major. Those who plan to be theatre majors are urged to begin their studies during their first year.

## Honors

Highly qualified majors (departmental GPA of 3.3, overall GPA of 3.0) are invited by the department to apply for admission to the honors program in theatre. To be graduated with the designation "Honors in Theatre," a student must successfully complete THE 399 with a grade of B or better. Honors projects may consist of:

1. A research paper of exceptional quality
2. A creative project in playwriting, design, directing, acting or dramaturgy
3. Other approved project

The theatre honors project must be presented and defended before a departmental Honors Committee. The department can furnish honors candidates with complete information on preparation and completion of projects.

## Dance, Minor

### Requirements

Requires a minimum of 19 hours and must include:

Code	Title	Hours
Select one of the following dance composition courses:		2-3
DCE 123	Introduction to Dance Composition	
DCE 223	Dance Composition	
Select one of the following modern courses :		2
DCE 120	Beginning Modern Dance Technique	
DCE 221	Intermediate Modern Dance Technique	
DCE 222	Advanced Modern Dance Technique	
Select one of the following jazz courses:		2
DCE 126	Beginning Jazz Dance	
DCE 226	Intermediate Jazz Dance	
DCE 227	Advanced Jazz Dance	
Select one of the following ballet courses:		2
DCE 127	Beginning Classical Ballet Techniques	
DCE 229	Intermediate Classical Ballet	
DCE 231	Advanced Classical Ballet	
or DCE 233	Advanced Studio Classical Ballet	
Select one of the following participation courses:		1
DCE 128	Dance Performance	
DCE 129	Choreography	
THE 100	Participation (taken twice for 1h total)	
DCE 200	Senior Dance Project	2
DCE 202	History of Dance	3
or DCE 203	20th-Century Modern Dance History	
DCE 205	Improvisation	2
or DCE 235	Ballet Repertory	
DCE 150	Design and Production for Dance	2
or THE 150	Introduction to Design and Production	

## Theatre, Minor

### Requirements

Requires 20 hours:

Code	Title	Hours
THE 110	Introduction to Western Theatre	3
or THE 111	Introduction to Theatre	
THE 140	Acting I	3
THE 150	Introduction to Design and Production	4
THE 310	History of Western Theatre I	3
or THE 311	History Western Theatre II	
Select one THE Elective at the 200 level or higher or select one of the following:		3
DCE 202	History of Dance	
DCE 203	20th-Century Modern Dance History	
DCE 223	Dance Composition	
Select one of the following Options:		1-1.5
Option 1:		

THE 100	Participation (two semesters)
Option 2:	
THE 100	Participation
THE 110L	Intro to Theatre-Lab
Select a Dramatic Literature course	

Potential minors should contact the chair of the department soon after arrival on the campus.

## Women's, Gender, and Sexuality Studies (WGS)

The department of Women's, Gender, and Sexuality Studies provides an opportunity for research and dialogue on a broad range of topics related to feminist contributions as well as to the fundamental fields of human knowledge and achievement and interdisciplinary studies of feminisms, masculinity, sex, gender and sexuality. A student intending to major or minor in Women's, Gender, and Sexuality Studies should consult the chair of the department, preferably during their first or early in their second year.

### Contact Information

Women's, Gender, and Sexuality Studies Department (<http://college.wfu.edu/wgs/>)  
Tribble Hall A105, P.O. Box 7365  
Phone 336-758-3758

### Programs

#### Major

- Women's, Gender, and Sexuality Studies, B.A.

#### Minor

- Women's, Gender, and Sexuality Studies, Minor

### Courses

#### Women's, Gender, and Sexuality Studies (WGS)

##### WGS 101. Window on Women's, Gender and Sexual Studies. (1.5 h)

An opportunity to experience and reflect analytically in writing on the diverse cultural and intellectual life of Wake Forest, with an emphasis on women's, and gender, and sexuality studies events and topics.

##### WGS 121. Feminist Leadership Project. (1.5 h)

Explores the principles of feminist leadership to deepen self-awareness about personal leadership skills and gain tools for creating feminist social change. This highly interactive class welcomes students who are new to feminist thought/activism as well as those seeking to deepen their engagement with feminism. Pass/fail only.

##### WGS 122. LGBTQ Center Change Agents Leadership Project. (1.5 h)

Open to participants in the LGBTQ Center's Change Agent program. Participants will explore principles of identity development (individual and community), queer and feminist theories of leadership and change, understanding gender and sexuality as frameworks for community organizing and social change, and development and implementation of a final change related project. Pass/fail only. P-POL.

##### WGS 125. Prepare. (1.5 h)

Provides students with an overview of the social, emotional, and legal issues related to sexual violence, and teaches them to design and implement educational programs on this topic. Pass/fail only.

##### WGS 150. Perspectives in Gender and Sexuality. (3 h)

Introduces feminism as a lens of analysis; gender, sexuality, and other social categories as social constructs; sexism, heterosexism, and other social systems as systems of oppression; and intersectionality as a lens of analysis. Topics of the course will vary based on the instructor. (D)

##### WGS 214. Gender and Sexuality in World History. (3 h)

Introduces the global and historical breadth of gender and sexual systems. Foundational and current approaches to cross-cultural historical analysis of masculinity, women's rights, and differences between LGBTQ identities and other models. Also listed as HST 114.

##### WGS 221. Introduction to Women's, Gender, and Sexuality Studies. (3 h)

Introduces many of the key topics, debates, and theoretical paradigms in the field of Women's, Gender, and Sexuality Studies. Addresses questions such as: What are gender and sexuality and how do gender and sexual norms influence the lives of people in society? What is the relationship between gender and sexuality and other social categories such as race and class? What is power and how is power distributed differently according to gender, race, class, and sexuality? The course strives to train students in analytical thinking and presses them to think critically about gender and sexuality in the past, present, and future. (CD)

##### WGS 222. Introduction to Sexuality Studies. (3 h)

Provides an interdisciplinary grounding in the foundations of queer culture and studies, with a critical interrogation of sex, gender, sexuality, pleasure, and embodiment in popular culture, literature, health, science, and politics. (CD)

##### WGS 224. Readings in Queer Theology. (1.5 h)

This seminar-style reading course surveys classic and new works in queer theology. Queer theology transgresses dominant constructions of gender identity and sexuality; and as such, it can be seen as an expression of the Christian gospel that subverts human understandings of life, community, and the divine. The course explores biblical and Christian theological perspectives on sexuality, social constructions of sexuality, and issues such as power, marriage equality, and sexual ethics.

##### WGS 230. Studies in Gender and Literature. (3 h)

Addresses ways in which gender and literacy practices intersect in various cultures and historical periods. Attention will be paid to the role of literature in formulating, subverting, or resisting gender norms. May be repeated for credit if topic differs.

##### WGS 234. Sexual Revolution! Gender and Sexuality in the United States, 1950-1980. (3 h)

Examines how conflicts around gender and sexuality played out from the 1950s to the 1970s in both the popular and high culture of the time: in bestselling novels and poems as well as canonical literature, and in television as well as in experimental film. We will consider the 1950s twice: once through the art produced at that time, and then through art produced about the 1950s after mainstream gender norms had shifted.

##### WGS 251. Race and Ethnic Diversity in America. (3 h)

Different race and ethnic experiences are examined through an institutional approach that examines religion, work, schooling, marriage patterns, and culture from cross-cultural perspective. Grand theoretical schemes like the "melting pot" are critiqued for their relevance in an age of new cultural expectations among the many American ethnic groups. Also listed as AES 251. (CD)

**WGS 271. Making Sense of the News Through a Feminist Lens. (1-3 h)**

Inquiry into news literacy from a feminist perspective, with the intention to identify gender bias and consider questions of empowerment, exclusion, consumerism, and how to navigate the digital landscape to distinguish verified, reliable news from propaganda.

**WGS 301. Feminist Political Thought. (3 h)**

Introduction to feminist thought and its implications for the study and practice of political theory. Topics include feminist critiques of the Western political tradition and schools of feminist political theory. Also listed as POL 277. (CD)

**WGS 302. Feminist Philosophy. (3 h)**

Examination of feminist approaches to philosophical theorizing. Topics may include feminist critiques of the scope and methods of mainstream philosophy, feminist approaches to ethics, epistemology and philosophy of language, and feminist conceptions of the self, sexuality, and moral agency. Also listed as PHI 379. P-One PHI course or POL.

**WGS 305. Transgender History, Identity and Politics. (3 h)**

Explores the experiences of and responses to transgender, gender non-conforming, and intersex (TGI) people in nineteenth-and twentieth-century America. We will examine how scientific/medical authorities, legal authorities, and everyday people have understood and responded to various kinds of gender non-conformity. Same as HST 371. (CD)

**WGS 306. Queer Public Histories. (3 h)**

Explores how public history projects (oral histories, museums, archives, documentaries) document gay, lesbian, and queer communities in the U.S. Discusses how historical and contemporary LGBTQ stories have been collected and examines the various queer identities that emerge through this process. Same as HST 372.

**WGS 309. Environmentalism, the Humanities, and Gender. (3 h)**

Survey of the global spread of Environmentalism, with an emphasis on its evolution as a disciplinary field that includes eco-feminism and feminist perspectives on the environment. Topics include the investigation of women's roles in environmental history and the construction of global environmental narratives. Also listed as HMN 292.

**WGS 310. Gender, Power and Violence. (3 h)**

A research-centered study of various issues related to violence, power, and gender in American society. Emphasizes sociological analysis of competing theoretical explanations of violence with respect to race, class, gender, religion, and sexual orientation. (CD)

**WGS 318. Film Lab in Women's, Gender, and Sexuality Studies. (1.5-3 h)**

Viewing, dissecting, and analyzing films. Fosters the skills to create complex cinematic analyses and explore feminist theoretical issues related to spectatorship.

**WGS 319. Women Playwrights. (3 h)**

Examination of selected plays and/or performance texts by women. Focus varies, for example, looking at works by contemporary American women or early women dramatists such as Hrosvitha, Sor Juana, and Aphra Behn. Also listed as THE 373. (CD)

**WGS 322. Feminist, Womanist, Mujerista Theologies: Constructive Perspectives on Christian Thought. (3 h)**

Examines major topics in Christian theology from African American (womanist), Latina/Hispanic (mujerista), and queer perspectives.

**WGS 326. Telling Women's Lives: Writing about Entrepreneurs, Activists, and Thought Leaders. (3 h)**

This course will use an interdisciplinary approach to address fundamental issues of female leadership by examining recent developments in long- and short-form narratives about women (biography, essays, profiles) and employing journalistic tools to interview and write profiles of women entrepreneurs, activists, and thought leaders. Also listed as ENT 326.

**WGS 327. The Feminist Book Society. (1.5, 3 h)**

A reading course designed to introduce students to classic and contemporary feminist texts. Emphasis on close reading, discussions, and writing. May be repeated for credit if texts differ.

**WGS 329. Politics of Gender and Sexuality: Cross-Cultural Perspectives. (3 h)**

Examines cultural constructions of gender and sexuality from a cross-cultural perspective and the relationship between feminism and cultural rights activism through time. Emphasizes how varied forms of feminisms are constituted within diverse social, cultural, and economic systems. Students consider how feminists are negotiating positions at the intersection of cultural and human rights. Also listed as ANT 329.

**WGS 330. Gender and the Politics of Health. (3 h)**

Examines the intersections of gender, medicine, health, and illness, with a focus on the U.S. context. Topics include: reproduction, mental illness, breast cancer, heart disease, and HIV/AIDS, among others. We explore the following questions: How have women and men interacted differently with the field of medicine, as healers, patients, and subjects of medical research? How do social and cultural norms about gender influence the definition of illness categories? What role does medicine play in defining and enforcing the boundaries of what is considered socially acceptable in terms of gender? How does gender as a social role affect health outcomes?

**WGS 332. Men, Masculinity and Power. (3 h)**

Offers an introduction to the burgeoning interdisciplinary field of masculinity studies. Students will explore the social, historical, and cultural construction of masculinity and male roles (as fathers, sexual and romantic partners, and workers) and how these constructions differ according to race, class, sexuality, etc. In addition, the course will examine how norms about masculinity simultaneously empower men as a group and many individual men, while also disadvantaging many individual men and regulating the behavior of all men. Students will explore possibilities for challenging hegemonic forms of masculinity and for creating new types of masculinity.

**WGS 333. Sexual Politics in the United States. (3 h)**

Explores the politics of sexuality in the United States. Drawing on feminist scholarship, queer theory, and lesbian, gay, and transgender studies, we will explore different historical and theoretical approaches to thinking about issues of power and sexuality. We will discuss sexual identities and cultures, state regulation of sexuality, sexual commerce, and cultural representations of sexuality, among other topics. Throughout we will examine how other social categories such as race, class, gender, and disability intersect with the politics of sexuality.



**WGS 345. Girls Gone Wild: A Century of Misbehavior. (3 h)**

Analyzes what made girls and women “bad” and “wild” in the twentieth-century United States, and how such judgments changed over time. Engages closely with novels, short stories, movies, comics, podcasts, and an opera with an eye to what behaviors were considered appropriate, and how they interrelated with sexual attraction, with economics, and with love. We examine the relationship between being configured as a sexual object (a recipient of desire) and a sexual subject (a possessor of desire), and come to a critical understanding of how the “proper” and “improper” forms of both were constantly in flux. We ask how race, ethnicity, and queerness interacted with hegemonic concepts of beauty and desire, and whether “masculinity” and “femininity” are necessarily attached to men and women. We read theories of sex and gender, examine concepts of projection and male hegemony, and ask how men as well as women are shaped by rules of appropriate behavior.

**WGS 346. Visual Narratives: Image, Sequence, Story. (3 h)**

Investigates the relationship of image, sequence, and story in typography, comics, woodcut novels, and photographic books, and film, as well as fiction and poetry with unusual visual elements, and then asks how these various elements offer different visual and textual expressions of sexuality. Students will conduct formalist analyses and further investigate visual narrative through creative exercises with the goal of developing an aesthetic sensibility and a technical vocabulary that enable them to discuss visual narrative with precision. Please note that some visual narratives will include graphic scenes of sexuality. Same as ENG 345.

**WGS 347. Joan Didion/Edmund White: Personal/History. (3 h)**

Examines Didion and White, two of the most important American writers of the past fifty years. Both are known for their journalism as well as their fiction, and their interest in U.S. cultural and political history, especially in terms of gender and sexuality, permeates their novels. This course analyzes three works by each author, developing themes from motherhood, sexuality, imperialism, rebellion and AIDS.

**WGS 349. Invert, Pervert, Bull Dagger, Queen: U.S. Queer Fiction in the 20th Century. (3 h)**

Explores the history of lesbians, gay men, bisexuals, the transgendered, and other queers through fiction by and about them written over the last century in the United States. We also consider biography, artifacts of popular culture, comics, drama, and film. Topics include the relationship between homosexual desire and queerness in a broad sense; LGBTQ children; biological and psychological understandings of sexual orientation; and how social construction informs sexual identity and desire.

**WGS 358. Mothers and Daughters. (3 h)**

A course that examines literature, psychology, and feminist theories on motherhood and the mother-daughter relationship.

**WGS 362. Feminism and Theatre. (3 h)**

Introduces students to the intersection of theater and feminism and experience its interdisciplinary lineage and academic interventions. Students will learn and apply feminist theory, which looks beyond the conventional theater for a continuum of performance that includes play, ritual, sport, everyday life and social roles, as well as performance art, global and intercultural performance. Engaging with various feminist theoretical approaches from radical and liberal feminism to intersectional and transnational feminism, students will be encouraged to critically examine race, class, gender, sexuality, ethnicity, and nationality expressed on and offstage.

**WGS 363. Gender and Sexuality in Contemporary Korea. (3 h)**

Examines gender and sexuality in Korean TV, film, K-pop, protests, and everyday performances, focusing on diverse socio-political issues within and beyond the Korean Peninsula. Topics include: the evolution of feminism, #metoo movement, LGBTQ cultures, sex work, aging, plastic surgery industry, postcolonial and post-Korean war conflicts, and transpacific affinities. (CD)

**WGS 364. Women of Color, Feminisms, and the Politics of Resistance in the U.S. (3 h)**

Examines historical and contemporary issues and current events affecting the lives of African American, Asian American, Latina, and Native American women. Exploring major theoretical and practical viewpoints in women's studies scholarship, the course will reveal the importance of intersectionality between race, gender, sexuality, class, and/or ethnicity in the everyday lives of multicultural women. Through arts-based civic engagement projects and activities, this course will also encourage students to formulate their own language of resistance against multiple forms of oppression. (CD)

**WGS 365. Transnational Asia and Asian American Feminism. (3 h)**

Analyzes historical, socio-political, and cultural events as well as contemporary issues structuring the lives of Asian American women and queer community. Students will learn intersectional and transnational feminist approaches to examine race, class, gender, sexuality, ethnicity, nationality, and kinship in Asian American art and activism.

**WGS 377. Special Topics. (1.5-3 h)**

Includes such women's, gender and sexuality studies topics as gender issues in the twenty-first century, critical approaches to women's issues, and the emergence of feminist thought. May be repeated for credit if topic differs.

**WGS 380. Sexuality, Law, and Power. (3 h)**

Explores a wide variety of issues related to sexual identity and orientation by looking at the ways in which the law can constrict social development as well as act as a catalyst for change. Examines how religion and popular morality shape the law and are shaped by it.

**WGS 381. Gender and the Law. (3 h)**

Examines how the law affects women's lives in a number of contexts. Considers a number of different areas, including but not limited to employment, education, family responsibilities, violence against women, and other issues affecting women's bodies, including pornography and prostitution. The class will also review a number of feminist legal theories and issues relating to the intersection of gender with race and class.

**WGS 383. Race, Gender, and the Courts. (3 h)**

Examines the impact of state and federal court cases upon the evolution of race and gender relations in the U.S. from 1789 to the present. Each case is placed within the political, economic and social historical context for the given time periods. Race includes Native Americans, African Americans, Asian Americans, and Latino Americans. This class will analyze government intervention, inaction, and creative interpretation. Same as HST 358.

**WGS 388. South Asian Women: Religion, Culture and Politics. (3 h)**

Using a feminist and post-colonial perspective, and taking into account the histories, experiences, and lives of South Asian women, this course, examines the intersection of religion, race, and gender from both a theoretical and a practical point of view. It focuses on issues of representation and identity formation, recognizing how categories such as “South Asian” and “woman” become tools for a simultaneous understanding of both culture and gender, creating a place for both oppression and empowerment. Same as REL 388.



**WGS 396. Independent Study. (1-3 h)**

Independent projects in women's, gender, and sexuality studies which either continue study begun in regular courses or develop new areas of interest. Course may be repeated, but a maximum of 3 hours may apply to the minor. By prearrangement.

**WGS 397. Public Engagement in Women's, Gender, and Sexuality Studies. (1.5, 3 h)**

An opportunity for students to engage in work and research that is shared with the broader public, either on campus or in a local community. A maximum of 3 hours may apply to the major or minor. P-POI.

**WGS 398. Theory and Practice of Women's, Gender, and Sexuality Studies. (3 h)**

Examines the major themes and terminology in Women, Gender, and Sexuality Studies, with focus on its diverse and multicultural expressions through time. Themes to be explored include schools of feminism, interlocking systems of oppression and the connection between theory and practice.

**WGS 399. Research Seminar in Women's, Gender, and Sexuality Studies. (3 h)**

A capstone, research-centered course in which students complete a significant research or creative project of their choosing situated within the field of Women's, Gender, and Sexuality Studies.

## Faculty

**Chair** Julia Jordan-Zachery

**Professor** Shannon Gilreath, Julia Jordan Zachery

**Associate Professors** Wanda Balzano, Kristina Gupta

**Assistant Professors** Jieun Lee, Jeff Solomon

**Part-Time Assistant Teaching Professor** Angela Mazaris

**Visiting Assistant Professors** Rachel Corbarn

## Women's, Gender, and Sexuality Studies, B.A.

### Requirements

Requires a minimum of 27 hours and must include the following courses:

Code	Title	Hours
WGS 221	Introduction to Women's, Gender, and Sexuality Studies	3
or WGS 222	Introduction to Sexuality Studies	
WGS 398	Theory and Practice of Women's, Gender, and Sexuality Studies	3
WGS 399	Research Seminar in Women's, Gender, and Sexuality Studies	3
Select one of the following:		1.5-3
WGS 397	Public Engagement in Women's, Gender, and Sexuality Studies (internship)	
Any WGS or WGS cross-listed course with a service-learning or public-engagement component		
15-16.5 hours of Elective courses *		15-16.5

\* *Must consist of WGS courses and courses approved for WGS credit (consult approved list on file with the Chair).*

- No more than 9 hours from one department other than WGS or program may apply to the WGS major.

- No more than 3 hours may be taken pass/fail.
- No more than 6 hours from the 100-level may count toward the major.
- No more than 6 hours from the student's minor(s) may count toward the major.
- No online course taken at institutions other than Wake Forest may count towards the major

Students pursuing the major are encouraged to enroll in WGS 221 or WGS 222 by the fall semester of the junior year, WGS 398 by the spring semester of their junior year, and WGS 399, the research seminar, during their senior year.

## Electives for Women's, Gender, and Sexuality Studies

Code	Title	Hours
All courses are subject to approval for the major and the minor. Special Topics courses must be in a relevant area. Additional elective courses may have been approved since publication of this bulletin. The chair of the department maintains a complete list of all official elective courses.		

Courses in the Humanities		
AES 357	Studies in Chicano/a Literature	3
ART 351	Topics in Gender and Art	3
CLA 252	Women, Gender, and Sexuality in Antiquity	3
EAL 241	Gender in Japanese Literature	3
ENG 340	Studies in Women and Literature	3
ENG 344	Studies in Poetry (when topic relates to WGS)	3
ENG 357	Studies in Chicano/a Literature	3
ENG 371	American Ethnic Literature	3
GES 390	German Women Writers	3
HST 324	Fashion in the Eighteenth Century	3
HST 336	Gender and Power in African History	3
HST 337	Women and Gender in Early America	3
HST 338	Sexuality, Race and Class in the United States since 1850	3
HST 348	Samurai and Geisha: Fact, Film, and Fiction	3
HST 359	Prostitutes, Machos, and Travestis: Sex and Gender in Latin American History	3
HST 388	Nation, Faith, and Gender in the Middle East	3
HMN 223	African and Caribbean Literature	3
HMN 290	The Humanities through Film, Literature and Media	3
ITA 335	Italian Women Writers	3
ITA 336	Italian Women and the City	3
MUS 208	Women and Music	3
REL 318	Feminist and Contemporary Interpretations of the New Testament	3
REL 345	The African-American Religious Experience	3
REL 388	South Asian Women: Religion, Culture and Politics	3
SPA 348	Contemporary Women Novelists and their Female Characters	3

### Courses in the Social and Natural Sciences

AES 310	Race, Class, and Gender in a Color-blind Society	3
ANT 332	Anthropology of Gender	3
ANT 333	Language and Gender	3
COM 318	Culture and Sitcom	3
COM 320	Media Theory and Criticism	3
COM 340	Democracy, Slavery and Sex: Emancipation Discourse from the Founding to the Civil War	3
COM 341	Class, Race, Sex and War: Emancipation Discourse from the Civil War to the Second Wave of Feminism	3
COM 370	Special Topics (when topic is "Race, Class, Gender, and Sexuality")	1-3
LIN 333	Language and Gender	3
POL 229	Women, Gender, and Politics	3
POL 277	Feminist Political Thought	3
PSY 265	Human Sexuality	3
PSY 359	Psychology of Gender	3
PSY 364	Stereotyping and Prejudice	3
SOC 153	Contemporary Families	3
SOC 305	Gender in Society	3
SOC 309	Sexuality and Society	3
SOC 347	Society, Culture, and Sport	3
SOC 359	Race and Racism	3
SOC 360	Social Inequality	3

## Honors

Highly qualified majors, who have earned an overall GPA of 3.3, with an average of 3.5 on work in WGS, may apply for admission to the honors program in Women's, Gender, and Sexuality Studies. To be graduated with the designation "Honors in Women's, Gender, and Sexuality Studies," the student must present an honors-quality research paper and successfully defend the paper in an oral examination. For additional information, students should consult the department chair.

## Women's, Gender, and Sexuality Studies, Minor

### Requirements

Requires a total of 18 hours.

Code	Title	Hours
WGS 221	Introduction to Women's, Gender, and Sexuality Studies	3
or WGS 222	Introduction to Sexuality Studies	
Select a minimum of 15 additional hours		15

If courses not designated WGS are taken, they must be from an approved list on file with the chair of the department; examples of these courses are listed below.

- Students may count no more than 6 hours from their major(s) toward the minor.
- No more than 3 hours may be taken pass/fail.

- No online course taken at institutions other than Wake Forest may count toward the minor.

Students pursuing the minor are encouraged to take WGS 221 in the first or second year prior to taking other 200 or 300 level classes.

## Electives for Women's, Gender, and Sexuality Studies

Code	Title	Hours
All courses are subject to approval for the major and the minor. Special Topics courses must be in a relevant area. Additional elective courses may have been approved since publication of this bulletin. The chair of the department maintains a complete list of all official elective courses.		

Courses in the Humanities		
AES 357	Studies in Chicano/a Literature	3
ART 351	Topics in Gender and Art	3
CLA 252	Women, Gender, and Sexuality in Antiquity	3
EAL 241	Gender in Japanese Literature	3
ENG 340	Studies in Women and Literature	3
ENG 344	Studies in Poetry (when topic relates to WGS)	3
ENG 357	Studies in Chicano/a Literature	3
ENG 371	American Ethnic Literature	3
GES 390	German Women Writers	3
HST 324	Fashion in the Eighteenth Century	3
HST 336	Gender and Power in African History	3
HST 337	Women and Gender in Early America	3
HST 338	Sexuality, Race and Class in the United States since 1850	3
HST 348	Samurai and Geisha: Fact, Film, and Fiction	3
HST 359	Prostitutes, Machos, and Travestis: Sex and Gender in Latin American History	3
HST 388	Nation, Faith, and Gender in the Middle East	3
HMN 223	African and Caribbean Literature	3
HMN 290	The Humanities through Film, Literature and Media	3
ITA 335	Italian Women Writers	3
ITA 336	Italian Women and the City	3
MUS 208	Women and Music	3
REL 318	Feminist and Contemporary Interpretations of the New Testament	3
REL 345	The African-American Religious Experience	3
REL 388	South Asian Women: Religion, Culture and Politics	3
SPA 348	Contemporary Women Novelists and their Female Characters	3

Courses in the Social and Natural Sciences		
AES 310	Race, Class, and Gender in a Color-blind Society	3
ANT 332	Anthropology of Gender	3
ANT 333	Language and Gender	3
COM 318	Culture and Sitcom	3
COM 320	Media Theory and Criticism	3

COM 340	Democracy, Slavery and Sex: Emancipation Discourse from the Founding to the Civil War	3
COM 341	Class, Race, Sex and War: Emancipation Discourse from the Civil War to the Second Wave of Feminism	3
COM 370	Special Topics (when topic is "Race, Class, Gender, and Sexuality")	1-3
LIN 333	Language and Gender	3
POL 229	Women, Gender, and Politics	3
POL 277	Feminist Political Thought	3
PSY 265	Human Sexuality	3
PSY 359	Psychology of Gender	3
PSY 364	Stereotyping and Prejudice	3
SOC 153	Contemporary Families	3
SOC 305	Gender in Society	3
SOC 309	Sexuality and Society	3
SOC 347	Society, Culture, and Sport	3
SOC 359	Race and Racism	3
SOC 360	Social Inequality	3

## Other Courses

### ACP 101. Preparing for Academic Quiz Competition. (1 h)

Prepares students for academic quiz competition (quiz bowl) via the study of academic material in history, science, literature, mythology, philosophy, religion, social sciences, fine arts, geography, current events and other fields; via writing questions for academic competition tournaments; and via on-campus competition. Pass/Fail only. May be taken three times for credit. P-POI.

### FYE 101. The College Transition. (1 h)

Exploration of issues related to academic success, living in community, and wellbeing in the transition to college. Emphasizes principles, understanding, and skills to promote a successful college transition. Pass/fail only. First-year students only.

### FYS 100. First Year Seminar. (3 h)

First year seminars are a basic requirement for graduation and are designed to enhance each student's academic and social integration into Wake Forest. They foster intellectual interchange, both written and oral, and encourage examination of opposing viewpoints through reading, writing, and debate of issues in a small group setting. Seminars are offered in most academic departments and programs.

### LIB 100. Academic Research and Information Issues. (1.5 h)

An introduction to the research process and methods for finding, retrieving and evaluating information in an academic library and through online sources. Encourages the development of the skills, attitudes and abilities essential to the discovery of information and promotes an understanding of how scholarship is produced, valued, and shared. Explores the use of information in creating new knowledge and participating ethically in communities of learning.

### LIB 210. Social Sciences Research Sources and Strategies. (1.5 h)

This half-semester course helps students develop as emerging social science scholars. Through exploring the sources and strategies used in social science research, students will explore interdisciplinarity; design an effective research process; investigate and critically evaluate sources; develop proficiency in APA style and citation management software; participate in scholarly conversations; and reflect on issues around information production, access, and authority. Must be sophomore or above to enroll.

### LIB 220. Science Research Sources and Strategies. (1.5 h)

This half-semester course provides students with an understanding of the sources and strategies for doing research in the natural sciences as well as the ethical, legal, and socioeconomic factors that influence scientific information production and dissemination. P-Major or minor in science discipline or POI.

### LIB 230. Business and Accounting Research Sources and Strategies. (1.5 h)

Provides students with an understanding of the sources and strategies necessary for doing research in business and accounting. Topics include strategies for developing research projects, resources available in each discipline, finding and evaluating sources and interpreting research results. P-Major in business or accounting. P-Major in business or accounting or POI.

### LIB 235. Research Methods for Entrepreneurs. (1.5 h)

This course is intended for students pursuing a minor in entrepreneurship or starting their own entrepreneurial project. It will introduce them to research methods and resources appropriate for business planning, including subscription-based resources available through WFU as well as reliable free resources available from governments, public libraries and elsewhere. The class will learn how to assess a potential market during the exploratory phase all the way through evaluating competitors and industry trends for more fully-formed business concepts. Trends in information gathering and information use by entrepreneurs will also be discussed.

### LIB 240. History, Politics and Legal Research Sources and Strategies. (1.5 h)

Provides students with an understanding of the sources and strategies necessary for doing research in history, political science and law. Topics include strategies for developing research projects, resources available in each discipline, finding and evaluating sources and interpreting research results. Must be sophomore or above to enroll.

### LIB 250. Humanities Research Sources and Strategies. (1.5 h)

Provides students with an understanding of the sources and strategies necessary for doing research in the humanities (English, classics, humanities, religion, history, philosophy, foreign language, art, music, theatre, dance). Topics include strategies for developing research projects, resources available in each discipline, finding and evaluating sources and interpreting research results. Must be sophomore or above to enroll.

### LIB 260. History of the Book 1500-2000. (1.5 h)

Introduces students to issues in the history of the book in the West, from early modern manuscript culture through the beginnings of the digital age. Using materials from ZSR Library's Rare Books Collection, students examine printed texts as objects of study in three major ways: as material artifacts, as vehicles for text, and as social constructs. Class assignments include a descriptive bibliography/research paper, in addition to hands-on typesetting, printing, and bookbinding projects. For more information contact the Special Collections Librarian, ZSR Library.

**LIB 290. Topics in Information. (1-3 h)**

Intensive look at one or more current topics in information. Course may be retaken for credit if topic varies.

**SPM 201. Basic Athletic Training. (3 h)**

A study of the basic knowledge and skills in the prevention, treatment, and care of common athletic injuries.

**SPM 302. Advanced Athletic Training. (3 h)**

**WDC 100. Internship. (3, 6 h)**

A one semester internship in government, a non-governmental organization, non-profit organization, or business, matching the individual student's interests. Part of the Wake Washington semester program.

# WAKE FOREST UNIVERSITY SCHOOL OF BUSINESS

In today's fiercely competitive marketplace, you need more than just a degree. Employers are looking for students that can stand out from the crowd and contribute from day one. You'll gain that competitive edge at the Wake Forest University School of Business. As an undergraduate business school student, you'll be exposed to a world of opportunity that will give you the chance to develop the skills and experience that employers are seeking. With classes and activities in the inspiring new Farrell Hall, you'll benefit from team-based learning, professional development, hands-on experience, leadership opportunities and study abroad programs. You'll also receive personal attention and access to some of the best business minds in the country—our faculty and alumni. You will leave the School of Business armed with the practical experience and the business acumen to set you apart from the competition.

The Wake Forest University School of Business offers a Bachelor of Science (BS) degree program for undergraduates.

1. Accountancy (ACC) – Prepares students for careers in accounting and consulting firms, investment banks, and other institutions. Provides a foundation for the Master of Science in Accountancy (MSA) degree, which is strongly recommended.
2. Business and Enterprise Management (BEM) – Preserves a general business curriculum while allowing students to gain greater depth in a number of specialty areas. Emphasizes development of strong leadership and critical thinking skills, enabling students to pursue management careers in a wide range of fields.
3. Finance (FIN) – Prepares students for careers in financial services, including investment and commercial banking and financial consulting.
4. Mathematical Business (MBU) – The mathematical business major, offered by the School of Business jointly with the Department of Mathematics, offers technical and quantitative training with a comprehensive business acumen to prepare students for careers that require data analytics-based, advanced quantitative approaches to problem solving. In today's complex global environment, where problems in business, consulting, and public policy are becoming more intricate, the program equips students with the methodology skills at the interface with business and statistics. The mathematical business major is a STEM-designated (science, technology, engineering, and mathematics) degree program, for international student OPT application purposes.

## Accreditation

The Wake Forest School of Business is accredited through AACSB International's management accreditation standards as well as its accounting accreditation standards. Accounting accreditation is an elective extension of management accreditation. AACSB International may be contacted at 813-769-6500,

777 South Harbour Island Boulevard, Suite 750  
Tampa, Florida 33602

and at their website (<https://www.aacsb.edu>). Inquiries should relate only to the accreditation status of the school and not to general admissions information.

AACSB International accreditation represents the highest standard of achievement for business schools and accounting programs, worldwide. Institutions that earn accreditation confirm their commitment to quality and continuous improvement through a rigorous and comprehensive peer review. AACSB International accreditation is the hallmark of excellence in business education.

Wake Forest University is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award baccalaureate, masters, and doctorate degrees. Contact the:

Commission on Colleges  
866 Southern Lane  
Decatur, Georgia 30033-4097

or call 404-679-4500 for questions about the accreditation of Wake Forest University.

## Programs and Majors

The Wake Forest School of Business offers a four-year bachelor of science degree, with majors in:

- Accountancy
- Business and Enterprise Management
- Finance
- Mathematical Business (offered jointly with the Department of Mathematics)

and four graduate degree programs:

- Master of Science in Accountancy (MSA)
- Master of Science in Management (MSM)
- Master of Business Administration (MBA)
- Master of Science in Business Analytics (MSBA)

When taken in conjunction with the School of Business's undergraduate degrees (Accountancy or Finance), the MSA degree requires only one additional year of study.

## Programs Majors

- Accountancy, B.S.
- Business and Enterprise Management, B.S.
- Finance, B.S.
- Mathematical Business, B.S.

## Courses

### Accountancy (ACC)

**ACC 110. Introduction to Financial and Managerial Accounting. (3 h)**  
Basic Accounting concepts and procedures used in the preparation of financial reports issued to stockholders, creditors and managers of business enterprises. Open only to Juniors and Seniors not majoring in the Schools of Business. Cannot be substituted for Accounting 111.



**ACC 111. Introductory Financial Accounting. (3 h)**

Introduction to financial accounting and reporting, including the role of financial information in business decisions, the basic financial statements, and the processes used to prepare these financial statements. Students are introduced to the accounting and reporting issues associated with an organization's financing, investing, and operating activities. Sophomore standing. P-Sophomore standing; minimum cumulative GPA 2.85; or POI.

**ACC 211. Intermediate Accounting I. (4 h)**

Study of the conceptual framework underlying financial accounting in the United States as well as the financial accounting standards setting process and the basic corporate financial statements. Financial accounting and reporting issues associated with receivables, inventories, property, plant, and equipment, and intangible assets are also examined. P-minimum of C in ACC 111.

**ACC 212. Intermediate Accounting II. (4 h)**

Examination of financial accounting and reporting issues associated with current liabilities and contingencies, long-term liabilities, stockholders' equity, dilutive securities and earnings per share, income taxes, pensions, and postretirement benefits, leases, financial statement errors, and the statement of cash flows. P-Minimum of C in ACC 211.

**ACC 221. Introductory Management Accounting. (3 h)**

Study of the concepts fundamental to management accounting which aid in decision-making, performance evaluation, and planning and control. The topics covered include product costing systems, budgeting, differential and breakeven analysis, responsibility accounting, cost allocation, and management accounting reports. P-Minimum of C in ACC 111.

**ACC 237. Taxes and Their Role in Business and Personal Decisions. (3 h)**

Review of legal and accounting concepts associated with the federal taxation of personal income. Topics examined include the regular and alternative minimum tax models as well as gross income, capital gains, property transactions, deductions, and credits. P or C-Accounting 211 or POI.

**ACC 311. Advanced Financial Accounting. (3 h)**

A comprehensive study of business combinations, the equity method of accounting for investments in common stock, and consolidated financial statement preparation. Also covered are accounting theory as applied to special problems such as accounting for partnerships and international accounting issues including foreign currency financial statement translation. In addition, government and nonprofit accounting are introduced in this course. P-ACC 211 and 212 with a grade of C or better.

**ACC 321. Accounting for Managerial Decision Making. (3 h)**

Provides students with advanced exposure to topics in cost structure management, planning, control, and decision making. Primary emphasis is placed on developing students' appreciation for how financial modeling and strategic analysis work together in unified decision making. To develop students as financial leaders, the foundation of the course will be the Information Value Chain promulgated by accounting academic researchers (e.g. Blocher 2009) and accounting practitioner organizations (Institute of Management Accountants). P-ACC 221 with a grade of C or better.

**ACC 351. Accounting Information Systems. (3 h)**

Study of the design and operation of accounting systems including the revenue, expenditure, and administrative transaction cycles. Emphasis is on the necessary controls for reliable data. P-BEM 251, and a minimum of C in ACC 212; or POI.

**ACC 352. Introduction to Auditing. (3 h)**

Examination of basic auditing concepts and practices, and the auditor's professional responsibilities. Emphasis is on auditing standards and the auditing procedures commonly used in public accounting. P-minimum of C in ACC 212; C-ACC 351; or POI.

**ACC 378. Individualized Reading and Research. (1-3 h)**

Directed study in specialized areas of accountancy. P-POI.

**ACC 390. Professional and Ethical Responsibilities of Accountants. (1.5 h)**

This course begins the process of moving students along a continuum from student to emerging accounting professional. Students develop an understanding of the accounting profession's broad societal purposes, as well as its ethical and professional standards and practices, along with an understanding of their various responsibilities as professional accountants - to the profession, to their clients, and to the public at large. Students reflect on the meaning and demands of professional accounting practice so as to develop an emerging professional identity consistent with the profession's broad purposes and ethical standards and practices. P-Senior standing or POI.

**ACC 391. Professional Accounting Internship. (3 h)**

Professional accounting field work, under the direction of a faculty member. Students gain relevant practical experience which builds on prior coursework and provides an experiential knowledge base for coursework. Pass/Fail. P-ACC 390. C-ACC 392.

**ACC 392. Professional and Ethical Responsibilities of Accountants - Internship Practicum. (1.5 h)**

Students apply, reinforce, and extend the themes and topics of ACC 390 in the context of a professional accounting internship. P-ACC 390.

**ACC 393. Professional and Ethical Responsibilities of Accountants - Case Study Practicum. (1.5 h)**

Students use a combination of historical and fictional case studies to apply, reinforce, and extend the themes and topics of ACC 390. P-ACC 390 (Not open to students who have taken ACC 392)

## Business (BUS)

**BUS 101S. Introduction to Business Software. (1.5 h)**

Provides students with basic skills in business software. Focuses on software for presentations, spreadsheets, and databases. In addition, students are familiarized with databases provided through the library and through the Internet that facilitate their ability to do research. This course does not count towards a School of Business degree. Summer only.

**BUS 111. Professional Life Skills. (1.5 h)**

Provides students with the basics of managing their personal finances and employee benefits. Focuses on topics such as: personal banking and budgeting fundamentals; individual credit and tax issues; employee investment and insurance options; and home rental or purchase considerations. Open to School of Business and non-School of Business students. Does not count towards a School of Business degree. Pass/Fail only.

**BUS 131. Personal Finance for Everyone. (3 h)**

This course is designed to set students with no required previous financial knowledge on a path to a life of financial empowerment and freedom. The course covers financial planning, budgeting, credit cards, investing, income taxes, financial markets, insurance, purchasing a home or car, estate planning and many other critical financial issues. The course emphasizes current relevant laws and regulations, construction of detailed models, and relevant research. Open to all Wake Forest students. Does not count toward a School of Business major or concentration.

**BUS 181. Field Study. (1 h)**

Directed field study in specialized areas of business. Does not count towards a School of Business degree. Pass/Fail only. Limit of 2. P-ACC 111, POI.

**BUS 281. Individualized Reading and Research. (1-3 h)**

Directed study in specialized areas of business. P-POI.

**BUS 295. Summer Management Program. (8 h)**

A study of the various functions of business including accounting, finance, information systems, management, marketing, production, and strategic planning. Special application and admission procedures. Does not count towards a Calloway Major. Pass/Fail only. Offered only in the summer and open only to junior and senior liberal arts majors.

**BUS 296. Silicon Valley Practicum. (3 h)**

The practicum, which includes on-the job and academic components, is a supervised learning experience that applies the foundational business skills learned in the Summer Management Program. Required residency in Northern California. Special application and admissions procedures. Applicants must successfully complete BUS 295 Summer Management Program. Does not count toward a business major.

**BUS 297. SportsBIZ. (6 h)**

Study of the concepts, operations, and management principles associated with the sports industry. Students are introduced to such areas as the foundation of sports management, sociology of sports, sports marketing, psychology of coaching, sports economics and finance, ethics in management of sports organizations, legal issues in sports management, athletics administration, facilities management, and the strategic management of sports organizations. Students may not receive credit for both BUS295 and BUS297. Pass/Fail only. Offered only in the summer with preference given to first-year students.

**BUS 350. General International Elective. (1-3 h)**

## Business and Enterprise Management (BEM)

**BEM 201. Quantitative Analysis I. (3 h)**

Emphasizes the understanding and application of quantitative tools used in the business decision-making process. Issues covered include collection and presentation of data, sampling, and inferences. P-ACC 111 with a C or better and sophomore standing; or POI. (QR)

**BEM 202. Quantitative Analysis II. (3 h)**

Emphasizes the understanding and application of quantitative tools for analysis and managerial decision-making. Topics include such statistical tools as Chi-Square methods, analysis of variance and regression, and correlation analysis. Management science tools include statistical decision theory and some deterministic optimization models such as linear programming and its various extensions. Application of these methods to the analysis of decisions from various functional areas of business is an important component of the course. P- BEM 201.

**BEM 211. Organizational Behavior. (3 h)**

This survey course provides a broad overview of several evidence-based theories and frameworks of organizational behavior (OB) at the individual, group and organizational levels of analysis that can be applied to help identify, diagnose and provide solutions to important organizational challenges. In this way, students will gain the requisite knowledge and skills necessary to become more effective working professionals. P- or C- (For BEM majors only) BEM 287.

**BEM 221. Principles of Marketing. (3 h)**

Investigates the means by which firms create, maintain, and improve relationships with customers through the development of strong brands and effective marketing programs. Emphasizes the application, rather than the acquisition, of marketing knowledge. Explores how the four Ps-product, price, place, and promotion-can be used to solve problems, exploit opportunities and meet challenges in the global marketplace. Discussions, cases, objective tests, in-class exercises and a marketing campaign project are among the instructional methods used. P-ECN 150, ACC 111, or POI.

**BEM 241. Production and Operations Management. (3 h)**

Introduces the basic concepts of operations strategy and operations planning in support of the business strategy of the firm. Topics include: operations strategy, quality management, project planning and control, capacity planning, location, layout, demand forecasting, supply chain management, aggregate planning, production scheduling, and inventory systems. P-BEM 201; STA 212 for MBU majors.

**BEM 251. Management Information Systems. (3 h)**

Introduction to the business issues associated with information systems, designed to provide a broad perspective for utilizing and managing an organization's information resources. Frameworks are presented for understanding the placement and relationship of different types of information systems within an organization. Includes an overview of computing technology currently used in business organizations, techniques for developing and implementing information systems, advanced applications of information technology, and the strategic implications of information systems and technology for business.

**BEM 261. Legal Environment of Business. (3 h)**

Study of the legal environment in which business decisions are made in profit and nonprofit organizations. Emphasis is on how the law develops and how economic, political, social, international, and ethical considerations influence this development. Includes an overview of private law topics (such as torts, contracts, and agency) and public regulation of the employment relationship, the competitive marketplace and the environment. P- or C-ACC 111.

**BEM 287. Professional Development Workshop Series A. (0-1.5 h)**

Enhances students' career-building skills through a series of workshops designed to address specific dimensions of professional development and career management. Students select from a menu of opportunities available during their first year in the management program, content varies. Pass/Fail only. P-Admission to the School of Business and the BEM major.

**BEM 312. Human Resource Management. (3 h)**

Focuses on important human resources management (HRM) skills that are frequently used by general managers. Upon completion of the course, students should be literate in basic HRM concepts, knowledgeable of general managers' HRM responsibilities, and skilled in HRM applications as prospective managers. P- BEM 211.

**BEM 315. Managing in a Global Context. (3 h)**

Focuses on professional effectiveness in a global setting, whether in a global company, leading a global team, or doing business abroad. Emphasis is on cross-cultural differences and their impact on the conduct of business. Conducted in a seminar format, the course examines the complexities involved in operating in different cultures and the implications which these cultural differences have on managing organizations and employee behavior. P-BEM 211 or POI.

**BEM 316. Leading in Nonprofit Sector. (3 h)**

Explores the role of nonprofit organizations (churches, schools, civic organizations, health clinics, etc.) and examines how to effectively lead them. Basic knowledge areas of responsibility in nonprofit organizations (i.e. legal classifications and issues, recruiting and managing volunteers, community development, fundraising, board development and ethical concerns) are covered. Pertinent leadership theories and issues addressed. One half of the available seats are open to non-School of Business majors. P-Junior or senior standing.

**BEM 318. Calloway Leadership Experience. (3 h)**

Explores the history, art, science and practice of leadership in organizational settings. Focuses on theories and contemporary applications of such issues as change, vision, communication, coaching, followership, and motivation. The experience will capitalize on liberal arts background, previous business courses and students' practicum experience to demonstrate practical leadership insights. Emphasis will be placed upon merging theory and practice using experiential learning to prepare students to excel in leadership positions in their organizations and communities. P - Senior standing and BEM 287.

**BEM 322. Global Marketing Strategy. (3 h)**

Builds on BEM 221 to explore strategic issues in the global marketplace in greater depth through intensive examination of cases from consumer and industrial markets; product and service businesses; and for-profit and nonprofit organizations. Analyzes social, cultural, economic, legal, and political factors present in the global marketplace and their impact on planning and implementing marketing strategy. Focuses on building analytical and decision-making skills. Objective is to ensure students understand the key role of marketing strategy in achieving and maintaining competitive advantage in an ever-changing, increasingly complex global business environment. P-BEM 221.

**BEM 323. Selected Topics in Marketing. (3 h)**

Identifies the most current marketing topics and practices in the dynamic global marketplace and covers them in detail. Focuses on the application of leading-edge concepts and ideas in the creation of superior marketing strategies. Seminar approach requires active student participation in the identification, elaboration, and discussions of course material. P-BEM 221.

**BEM 324. Marketing Research. (3 h)**

Introduction to fundamentals of research methodology and use of research information in marketing decision-making. Topics include research design, data collection methods, scaling, sampling, and alternate methods of statistical data analysis. Students design and execute their own research projects. P- BEM 201 and 221.

**BEM 325. Consumer Behavior. (3 h)**

Focuses on understanding the customers/consumers/buyers/clients/patients/ patrons without whom marketing and business cannot survive. Examines consumer motivations, influences, decision-making processes and behaviors as they relate to the development of competitive marketing strategy. Discussions, mini-cases, in-class exercises, and a project are among the instructional methods used in the course. P- BEM 221 or POI.

**BEM 326. Brand Management and New Product Development. (3 h)**

Provides students with a unique insight into the role of a brand manager charged with identifying and implementing strategies to measure, manage and build brand equity over time. Special emphasis will be placed on identifying new sources of profitable growth while enhancing brand equity through strategic new product development. A team-based approach is utilized and supported by lectures, case studies, guest speakers, and a semester-long brand equity assessment/new product development project. P-BEM 221.

**BEM 327. Marketing Communications. (3 h)**

Designed for students whose career plans involve making strategic marketing decisions. Emphasizes ways to foster relationships with consumers by establishing a dialogue through advertising, consumer and trade promotions, the Internet, direct mail, publicity, packaging, point of sale material and event sponsorship. Discussions, cases, in-class exercises, oral presentations, and a marketing communications campaign project are among the instructional methods used in the course. P-BEM 221.

**BEM 328. Sports Marketing. (3 h)**

Focuses on the application of the strategic marketing process to the rapidly growing sports industry. Varied elements of the industry are examined: understanding the sports consumer; marketing and media; advertising and communication; promotion and special events; licensing; and corporate sponsorships. Current research, including gender-specific marketing, using athletes as endorsers, segmenting the sports market, measuring value of sponsorship, and the impact of technology on sports are covered. P- ECN 150 or equivalent.

**BEM 329. Marketing Analytics. (3 h)**

This course will cover the principles and strategic concepts of marketing analytics, a high-growth area that uses quantitative strategies, resource allocation decisions, and return on marketing investment (ROMI). Topics may include forecasting and positioning; predictive analytics; customer profitability; digital and social media analytics; and resource allocation. P - BEM 201, 221.

**BEM 332. Financial Statement Analysis. (1.5 h)**

This course is intended to present you with a framework for using financial and market information to analyze a business and assess its potential market value. The focus will be on the information included in a firm's financial statements and the accompanying notes, however you will also consider how other available information is relevant to this analysis. Throughout the semester we will examine (i) how to analyze and assess a company's business strategy, (ii) how to interpret and analyze differences in firm-specific application of accounting techniques, (iii) how to analyze financial data in a systematic and logical method, (iv) techniques for forecasting financial information, and (v) techniques for equity valuation. These components will then be pulled together into a comprehensive framework for evaluating a business focusing on the available financial information. P-ACC 111, 221; FIN 231; BEM 201, P or C-BEM 371, or POI.

**BEM 342. Project Management. (1.5 h)**

With today's problems being increasingly more complex, this course offers an important skill set addressing these problems by covering concepts and issues important in effectively managing projects. Some of the topics are project selection, project planning, resource allocation, project control, project auditing, as well as team creation and team leadership. Upon completion of this course, students will have an understanding of the challenges and opportunities involved in project management. They will also understand the types of decisions involved in effectively completing a project meeting stakeholders' expectations, on time, and within budget. P-ACC 111, 221; FIN 231; BEM 201, P or C-BEM 371, or POI.

**BEM 362. Contemporary Issues in Law and Public Policy. (3 h)**

In a seminar setting, the course explores emerging topics that have the capacity to affect the marketplace in significant ways. flowing naturally from previous law-oriented classes, it provides the opportunity for students to delve more deeply and critically into the actual policies that give rise to legislation, case precedent, and regulation. As such, the course encourages strategic thinking about decision-making in a complex, ever-changing business environment. P-BEM 261.

**BEM 365. Ethics and Business Leadership. (3 h)**

An interdisciplinary exploration of ethics applied to business. Lectures, readings, and case-based approach introduce the necessary background information. Examples of ethical and unethical situations are used to develop an understanding of how an efficient and effective business can also be ethical. P- Junior or senior standing.

**BEM 371. Strategic Management. (3 h)**

Focuses on the derivation of competitive advantage and sustainable, superior performance by organizations. Emphasizes the shape, character, and overall direction of the total enterprise, and the activities of managers who are responsible for achieving strategic coordination and coherence across functions and divisions. Course content includes analyzing the effects of industry and competitive environments on the firm, determining the basis upon which the firm should compete, formulating and implementing integrative action plans, and strategic leadership. Strategy analysis frameworks are applied to situations including for-profit and nonprofit organizations, diversification, global strategy, and strategic change. This is a discussion-oriented class in which principles of strategic management are applied to complex case studies. P-(all majors) BEM 211, 221 and FIN 231. P or C-(all majors) BEM 241. P-(BEM majors only) BEM 287, 389.

**BEM 372. Strategic Management in Entrepreneurial Firms. (3 h)**

Core foundational concepts in strategic management are critically examined in the context of entrepreneurial firm settings. Emphasis is placed on applying principles of competitive analysis and strategic planning using case studies of startups, fast-growth firms, young firms in rapidly-changing industries, firms confronting early organizational life cycle problems, and new ventures seeking to expand internationally. Unique strategy issues confronted by new venture and by firms operating in electronic commerce, technology, and other fast-paced industries will be considered. This is a discussion-oriented class in which principles of strategic management are applied to complex case studies. P (All majors)-BEM 211, 221 and FIN 231. P or C-BEM 241. P-(BEM majors only)-BEM 287 and BEM 389.

**BEM 375. Contemporary Issues in Business and Foundations of Capitalism. (3 h)**

Explores contemporary business issues such as corporate social responsibility, government regulation of business, health care and/or tax policy implications for business, stakeholders versus stockholders, and sources of economic development in less-developed nations. To do so we examine the foundations of capitalism its moral and intellectual underpinnings, the principal arguments that challenge and support capitalism and free markets, and the obligations of free institutions in society. This will be accomplished by reading a combination of novels, the work of leading political economists who have shaped generations of thinking at the highest levels of government and academia about capitalism, economics and free markets and recently-published works by business and political leaders.

**BEM 376. Introduction to Consulting. (1.5 h)**

This course is designed to expose you to the consulting mindset and the typical phases of a consulting engagement – selling a project, defining the problem/objective, gathering data, analysis, diagnosing solutions, and implementing recommendations. Effort will be placed on developing proficiencies in a range of skills required to practice consulting –e.g., critical thinking; data analysis; communication; relationship management; and the advanced use of software tools.

**BEM 377. Entrepreneurship. (3 h)**

Exposes students to multiple facets of entrepreneurship and teaches about creating new ventures in a very hands-on fashion. A broad range of ideas, readings, and cases enable students to understand the ambiguous and highly-charged environment of entrepreneurship, the contribution of entrepreneurial endeavors to business and society, and the characteristics of successful new venture startups. Focuses on three areas that define successful entrepreneurial pursuit of new for-profit, non-profit, and social enterprise initiatives: recognizing opportunity, management, and assembling resources. The completion of a team-based business plan for a new venture is usually required. Guest speakers present their views of entrepreneurial organizations based on real-world experiences- startup, financing, legal, transition, failure, etc. P- BEM 211, 221, and FIN 231, or POI.

**BEM 380. Selected Topics in Business. (1-3 h)**

An examination of selected topics in business. May be repeated if course title differs.

**BEM 381. Individualized Reading and Research. (1-3 h)**

Directed study in specialized areas of business. P- POI.

**BEM 382. Management in the Visual Arts. (3 h)**

Taught by faculty from the School of Business and the Art Department. It provides both art and business students with the essential skills, pragmatic experiences, and a conceptual framework for understanding the role the visual arts play within the national and international economies. Students receive preparation for involvement in art galleries, auction houses, museums, and publishing, as well as for contributions to various boards and organizations that commission or purchase works of art. The marketing, financial, legal, and strategic aspects of art management are explored. Emphasis is on dialogue between art majors and business majors enrolled in the course. Field study in at least one major metropolitan area for the purpose of gaining intensive exposure to professional arts management is required, but the majority of travel costs are covered by the University. One half of enrollment spaces are available for students who have been accepted into the School of Business; the remaining half of the spaces are available to declared art majors with junior standing or higher. Also listed as ART 297. P-Junior or senior standing and POI.

**BEM 383. Seminar in Negotiations. (3 h)**

Focuses on the process of conducting successful negotiations in a business setting. Introduces concepts, theories, and analytical frameworks that underlie common negotiation techniques. Practical skills are emphasized through negotiation exercises and the analysis of contemporary business situations. Lectures, discussions, and role plays are among the instructional methods used. P- Senior status or POI.

**BEM 384. Design-Thinking and High-Performance Teams. (3 h)**

In this experiential class, we study the evolution of high-performance teams in design-thinking environments. At its core, design thinking is an approach to innovative problem solving that balances art, science, and business perspectives in realistic and highly impactful ways. In this course we develop the ability to participate in and lead high-performance teams within a design-thinking environment. The course involves an action-learning project that applies the perspectives of anthropology, history, political science, communication, and psychology, among others, in solving a real-world problem. Also listed as ENT 384.



**BEM 385. Why Business. (3 h)**

Business is about the creation of value in society, but the goals of the noble profession of business are often deemphasized. This course examines the philosophical, legal, and economic foundations of business and the ways the institutions of our society challenge and support the creation of value. Students will explore their place in this system as professionals who steward the broader system of business. P-Junior or senior standing; or POI.

**BEM 386. Selected Topics in Real Estate. (1.5 h)**

Examines the most pertinent topics in real estate. Focuses on subjects such as ownership and interest, the legal aspects of real estate, real estate finance and real estate trends. P-Senior standing and POI.

**BEM 388. Management Simulation. (1.5 h)**

Designed to integrate the functional areas of business through the use of an experiential simulation exercise. The simulation that provides the foundation of this course requires students to draw on their learning from previous courses in operations, marketing, finance, human resource management, information systems and strategic management. Students are organized into cross-functional management teams, and the teams are required to make plans for a business enterprise operating in a competitive environment, make critical managerial decisions in response to real-world situations that arise, and present their work to a faculty committee. P-Senior standing and BEM 211, BEM 221, BEM 241, BEM 251, and FIN 231; P or C-BEM 371 or 372 (MBU majors are exempt from strategy requirement).

**BEM 389. Management Internship. (3 h)**

The internship is a supervised learning experience that applies business coursework to an actual work environment for academic credit. The internship is subject to approval and consists of both academic and on-the-job learning components. P- Acceptance as a BEM major and completion of 15 hours of School of Business credit which must include BEM 211 and 287.

**BEM 391. Global Business Studies. (3 h)****BEM 392. Seminar in Mathematical Business Analysis. (3 h)**

Provides mathematical business majors with a forum where they can actually see how the mathematical, statistical and computer techniques can be brought to bear on many business problems in a variety of business functions. Emphasis is more on studying the process of modeling and implementation issues of the solutions and less on the algorithmic details. Critical and reflective thinking about models and translation of their results into management action that will add value to a process or a system is a major objective. Another objective of the seminar is to foster group work and the sharpening of presentation skills. P-BEM 211, 221, 241, FIN 231, MST 253, 353, and STA 212.

**BEM 393. Principles of Risk Management. (3 h)**

Intended to assist students in identifying and analyzing risk and in managing it through a variety of mechanisms. Techniques such as loss control, risk retention, and risk transfer are discussed. This course also includes professional risk management field work, under the direction of a faculty member. Students will gain relevant practical experience that is integrated with casework and risk management theory. Emphasis is on analysis, decision-making in a global environment, teamwork, written and verbal skills, presentation skills, and using technology to solve problems. P-Junior or senior standing and POI.

## Finance (FIN)

**FIN 203. Applied Quantitative Analysis for Finance. (3 h)**

Provides the basic mathematical and statistical tools needed for the study of applied finance. Topics: multiple regression, analysis of residuals and F-tests; analysis of time-series data; risk, preference and utility theory; stochastic processes; and applied optimization. P-BEM 201 and FIN 231 with a C or better; C-FIN 232; or POI.

**FIN 231. Principles of Finance. (3 h)**

Survey course examining the fundamentals of financial decision-making and including topics such as the time value of money, security valuation (corporate debt and equity pricing), risk and return, financial statement analysis, capital budgeting, and the cost of capital. Financial decision-making is developed within the context of domestic and international institutions and markets. P-ACC 111, P or C-ECN 150.

**FIN 232. Intermediate Finance. (3 h)**

Required for all finance majors and is intended as preparation for upper level electives. It provides an examination of financial decision-making under uncertainty stressing practical applications of technology. Topics include yield curves and interest rate risk; the uses and risks of derivative securities; capital structure and the impact of leverage; statistical estimation of the cost of capital for the firm and its projects; financial statement forecasting (pro forma); and discounted cash flow valuation of the firm. The course incorporates electronic spreadsheet applications (Excel) in problem solving, statistics and financial modeling. P-BEM 201 and FIN 231 with C or better; C-FIN 203; or POI.

**FIN 233. Equity Investments. (3 h)**

The Equity Investments course exposes students to equity research, portfolio formation and analysis, equity security valuation, and stock selection for portfolio construction. The course uses accounting, fundamental analysis and a discounted cash flow framework to value equity securities. P-FIN 203 and FIN 232 with a C or better. May be taken as a co-requisite with FIN 203 and/or FIN 232 with POI.

**FIN 234. International Finance. (3 h)**

The course examines the impact of international financial economics on markets and the management of both domestic and multinational firms. Emphasis is placed upon institutional and environmental factors influencing trade, foreign exchange, and capital acquisition and allocation. P-FIN 203 and FIN 232 with a C or better; or POI.

**FIN 235. Selected Topics in Finance. (3 h)**

Identifies the most current topics and practices in the dynamic global financial industry and covers them in detail; may also explore a more narrow finance topic in depth. Focuses on the application of leading-edge concepts and ideas in the financial services and/or banking industries. A seminar approach requires active student participation in the identification, elaboration and discussion of course materials. Oral and written skills are emphasized. P - FIN 203 and FIN 232 with a C or better. May be taken as co-requisite with FIN 203 and/or FIN 232 with POI.

**FIN 236. Private Equity. (3 h)**

Covers the full life cycle of private equity. The course covers buyout, venture capital and growth capital investing, both from an investing and managerial point of view. While being relevant to students interested in becoming private equity professionals, the course is also applicable to those who might interact with private equity firms from the view of being an investment banker, a funding source, a participant in acquisitions or divestitures (such as a seller or management partner) or as an institutional investor in private equity funds. P - FIN 203 and FIN 232 with a C or better; or POI.



**FIN 237. Financial Markets and Institutions. (3 h)**

The course provides students with an understanding of the structure and functioning of US and international financial markets. Topics covered in the class: banking theory, the roles of traditional and non-traditional financial intermediaries, the impact of securitization, international financial competition, financial system stability and financial regulation. P-FIN 203 and FIN 232 with a C or better; or POI.

**FIN 238. Financial Modeling. (3 h)**

This course is intended to strengthen your knowledge in Finance and provide you with practical skills for implementing financial models in a spreadsheet. While the specific tool used in this class is Microsoft Excel, the techniques can be generalized and applied to various implementation tools. The subject matter is a blend of Corporate Finance and Investments with a heavier weighting placed on Corporate Finance.

**FIN 239. Financial Data Analytics. (3 h)**

This course serves as an introduction to many aspects of financial technology and data. Topics include machine learning, data visualization, Excel pivot tables and dashboards, monte carlo simulation, encryption, safety and ethics when working with financial data, Python, and introductions to traditional programming languages. Students will become familiar with and use Bloomberg terminals, Excel, Python, Morningstar, and Crystal Ball to analyze, visualize, and manipulate data. Students will apply these skills to work with real world financial data solving problems they are likely to see outside of the classroom. P-FIN 203 and 232 with a C or better; or POI.

**FIN 331. Corporate Finance. (3 h)**

The course explores the practical application of corporate financial theory. The strategic financial decisions of firms are analyzed with regard to capital budgeting, capital structure, dividend policy, seasoned equity offerings, rights issues, the application of option theory to corporate finance strategy, and real options. P-FIN 203 and 232 with a C or better; or POI.

**FIN 332. Banking and Investment Banking. (3 h)**

Examines corporate restructuring and how commercial and investment banks facilitate the transactions. Investigates the impact of strategic financial alterations on the performance of the firms assets. Examines IPO's, mergers and acquisitions, divestitures, spin-offs, and capital acquisition. Focuses on the application of financial modeling and the use of discounted cash flow valuation to analyze managerial decisions under uncertainty. P-FIN 203 and 232 with a C or better; or POI.

**FIN 333. Advanced Finance. (3 h)**

Focuses on maximizing the firm's market value in a dynamic environment by exploring the interplay between (1) its operating and strategic decisions, (2) the evaluation of the firm and its strategies by the investment community, and (3) the functioning of capital markets and economies within which the firm operates. The course integrates results from relevant research with the effective practice of financial management by business professionals. P —FIN 203 and FIN 232 with a C or better; or POI.

**FIN 335. Financial Derivatives. (3 h)**

Explores the pricing and uses of derivatives; the role of market participants; how market structures and practices facilitate risk transfer; and the uses of derivatives for hedging. Covers futures/forwards, options, and swaps, the three most important types of financial derivatives. P-FIN 203 and 232 with a C or better; or POI.

**FIN 336. Fixed Income and Financial Engineering. (3 h)**

Provides an introduction to interest rate risk management, the nature of fixed income markets, the structure and underlying economic rationale for various structured products including collateralized debt obligations, and the role of financial engineering in fixed income markets and risk management. P-FIN 203 and 232 with a C or better; or POI.

**FIN 338. Real Estate Finance. (3 h)**

Focuses on concepts and techniques used to value and finance income-producing property investments. Provides students a critical perspective for making financial decisions about real estate. The nature of real estate risk, at both the level of the individual project and the investment portfolio. Class sessions will rely on case discussions as we consider how economic characteristics of the property and the local market, motives of different actors, and institutional arrangements interact to shape decision-making in real estate. P-FIN 203 and 232 with a C or better; or POI.

**FIN 381. Individualized Reading and Research. (1-3 h)**

Directed study in specialized areas of finance. P-POI.

## Faculty

**Sisel Distinguished Dean** Charalambos L. Iacovou

**Vice Dean of Faculty** Michelle Roehm

**Associate Dean of the Undergraduate Program** Kenny Herbst

**Associate Dean of the Master of Science in Management Program** Norma R. Montague

**Associate Dean of MBA Programs** Timothy R. Janke

**Assistant Dean of MBA Programs** Mark Johnson

**Associate Dean of Analytics Programs** Jeffrey D. Camm

**Dale K. Cline Associate Dean for Accountancy** Mark Evans

**F. M. Kirby Chair in Business Excellence and Professor** Charalambos L. Iacovou

**J. Tylee Wilson Chair in Business Ethics and Professor** Sean T. Hannah

**John B. McKinnon Professor** Ron L. Thompson

**Inmar Presidential Chair in Business Analytics and Professor** Jeffrey D. Camm

**David C. Darnell Presidential Chair in Principled Leadership and Professor** Derek R. Avery

**Kemper Professor in Business** J. Kline Harrison

**D. Wayne Calloway Professor in Accounting** Jack E. Wilkerson

**Delmer P. Hylton Professor of Accountancy** Jonathan E. Duchac

**C. C. Hope Chair of Financial Services and Law and Professor** Steve H. Nickles

**Thomas S. Goho Chair in Finance and Professor** Ajay Patel

**Thomas H. Davis Chair in Business and Professor** Haresh Gurnani

**Thomas K. Hearn, Jr. Professor in Finance** Robert C. Nash

**Sisel Faculty Professor** Pat H. Dickson

**Peter C. Brockway Chair of Strategic Management and Professor** Michelle Roehm

**Benson Pruitt Professor of Business** Sherry E. Moss

**Thomas W. Smith Presidential Chair in Business Ethics and Professor of Economics** James R. Otteson

**Professors** S. Douglas Beets, Frederick H. deB. Harris, James A. Narus, Scott M. Shafer, Julie H. Wayne, G. Page West III

**Teaching Professors** William L. Davis, Mark Johnson, Alireza Lari, Deon Strickland

**Executive in Residence and Adjunct Professor of the Practice** Peter Brockway

**Adjunct Professors** Dan Fogel, Michael French, Joe Mazzola, Steve Powell

**AT&T Faculty Fellow and Associate Professor** Gordon E. McCray

**James Farr Faculty Fellow and Associate Professor** John Sumanth

**Sisel Faculty Fellow & Associate Professor** Kenny Herbst  
**Wall Street Partners Fellow and Associate Professor** Bill Marcum  
**Associate Professors** George R. Aldhizer III, Terry A. Baker, Derrick S. Boone, Holly H. Brower, Thomas G. Canace, Anna Cianci, Lisa Dragoni, Mark E. Evans, Jai Li, Patrick R. McMullen, Norma R. Montague, Jonathan P. Pinder, Michelle D. Steward, Ya-Wen Yang  
**John Hendley Fellow & Associate Teaching Professor** Matthew T. Phillips  
**Associate Teaching Professors** Anthony Amoruso, Phil Anderson, Tonya Balan, Chris Smith, Brian Young  
**Adjunct Teaching Professor** Barbara Prestwood  
**Assistant Professors** Jiaru Bai, Kenneth D. Ford, Philip Howard, Lauren Reid, Stephan Shipe, Carolina Salge  
**Adjunct Assistant Professor** Ben Grannan  
**Professors of the Practice** Tom Aleman, Roger L. Beahm, Timothy R. Janke, Benjamin T. King, Martin Malloy, Cynthia Tessien, Amy Wallis, James B. Willis  
**Associate Professors of the Practice** Susan I. Langlitz, Denis Maier  
**Adjunct Professors of the Practice** Michael Ames, Bob Fly, Robert Gemmell, Jason Goddard, Zachary Hartsell, Sobia Hussaini, Ged King, Deron Mabe, Brian McKay, Shannon McKeen, Peter Mitchell, Michael Travis, Scott Warfield, Pete Woods  
**Visiting Professors of the Practice** Ann Bliss, John Butler, Andrew Jarachovic  
**Visiting Associate Professor of the Practice** Whitney Simpson  
**Visiting Assistant Professor** Megan Regan  
**Visiting Assistant Professor of the Practice** John Karabelas  
**Visiting Assistant Teaching Professor** Ali Zeytoon-Nejad  
**Affiliate Professor of the Practice** Jon Clift  
**Adjunct Instructors** Vern Scoggins  
**Affiliate Instructor** Ian Taplin  
**Senior Lecturer** J. Bren Varner  
**Adjunct Senior Lecturer** Ben Baker  
**Lecturer** Pete Brewer, Jennifer Hudson  
**Adjunct Lecturer** Thad Lewallen, Paula Payton

## Accountancy, B.S.

### Requirements

The School of Business' separate accounting accreditation through AACSB International requires that the School establish a separate statement of mission for its accountancy program complementary to the School's basic mission statement provided. Accordingly, the mission and values of the School's accountancy program are as follows:

The mission of the Wake Forest accountancy program is to enhance business, society, and the accountancy profession through our teaching and scholarship. We value: an environment that promotes thoughtful reflection and a high level of face-to-face interaction; intellectual curiosity, including a passion for the study of business; teaching excellence; challenging academic standards consistent with high-quality students; the creation and dissemination of knowledge; honor, integrity, and respect for the ethical and legal foundations of the accountancy profession; and strong relationships with alumni, recruiters, and other members of the accountancy profession.

The accountancy program includes both the baccalaureate and master's programs. Students who major in either accountancy or finance (FIN-M) at the baccalaureate level may apply for admission to the MSA program during their junior year (see MSA Program Admissions). The coursework, combined with the opportunity to complete a professional internship,

provides students with a solid foundation in the concepts, principles, and practices of accountancy and business.

Requires the following courses:

Code	Title	Hours
ACC 111	Introductory Financial Accounting	3
ACC 211	Intermediate Accounting I	4
ACC 212	Intermediate Accounting II	4
ACC 221	Introductory Management Accounting	3
ACC 237	Taxes and Their Role in Business and Personal Decisions	3
ACC 351	Accounting Information Systems	3
ACC 352	Introduction to Auditing	3
ACC 390	Professional and Ethical Responsibilities of Accountants	1.5
ACC 392	Professional and Ethical Responsibilities of Accountants - Internship Practicum	1.5
or ACC 393	Professional and Ethical Responsibilities of Accountants - Case Study Practicum	
BEM 201	Quantitative Analysis I	3
BEM 211	Organizational Behavior	3
BEM 221	Principles of Marketing	3
BEM 241	Production and Operations Management	3
BEM 251	Management Information Systems	3
BEM 261	Legal Environment of Business	3
BEM 371	Strategic Management	3
or BEM 372	Strategic Management in Entrepreneurial Firms	
BEM 388	Management Simulation	1.5
FIN 231	Principles of Finance	3
FIN 232	Intermediate Finance	3
ECN 150	Introduction to Economics	3
MST 111	Calculus with Analytic Geometry I	4
or MST 112	Calculus with Analytic Geometry II	

ACC 391 is strongly recommended.

ACC 311 and ACC 321 are strongly recommended for students who do not intend to pursue the MSA degree.

### Honors

School of Business students (exclusive of mathematical business majors) with a grade point average of at least 3.0 on all college work and who are eligible for membership in Beta Gamma Sigma are invited to apply for admission to the honors program in business and accountancy. A project, paper, or readings, and an oral presentation or examination are required. Those who successfully complete the requirements specified by the School graduate with the designation "Honors in Accountancy," "Honors in Business and Enterprise Management," or "Honors in Finance." For additional information, interested students should consult a member of the faculty of the Wake Forest School of Business.

## Business and Enterprise Management, B.S.

### Requirements

The business and enterprise management major in the School of Business combines a rigorous and high-quality curriculum with real-world applications. The degree program preserves a general business curriculum while simultaneously allowing students to gain greater depth in a number of specialty areas. The program emphasizes the development of strong leadership and critical thinking skills, enabling students to pursue careers in management in a wide range of fields.

Requires the following courses:

Code	Title	Hours
ACC 111	Introductory Financial Accounting	3
ACC 221	Introductory Management Accounting	3
BEM 201	Quantitative Analysis I	3
BEM 202	Quantitative Analysis II	3
BEM 211	Organizational Behavior	3
BEM 221	Principles of Marketing	3
BEM 241	Production and Operations Management	3
BEM 251	Management Information Systems	3
BEM 261	Legal Environment of Business	3
BEM 287	Professional Development Workshop Series A	1.5
BEM 318	Calloway Leadership Experience	3
BEM 365	Ethics and Business Leadership	3
BEM 371	Strategic Management	3
or BEM 372	Strategic Management in Entrepreneurial Firms	
BEM 388	Management Simulation	1.5
BEM 389	Management Internship	3
FIN 231	Principles of Finance	3
ECN 150	Introduction to Economics	3
MST 111	Calculus with Analytic Geometry I	4
or MST 112	Calculus with Analytic Geometry II	
Select 9 hours in a pre-approved concentration area *		9
Marketing		
International Business		
New Business Development		
Management Consulting		
Other Elective Options		

\* Concentration areas must include at least one BEM elective course or INS 260.

### Honors

School of Business students (exclusive of mathematical business majors) with a grade point average of at least 3.0 on all college work and who are eligible for membership in Beta Gamma Sigma are invited to apply for admission to the honors program in business and accountancy. A project, paper, or readings, and an oral presentation or examination are required. Those who successfully complete the requirements specified by the School graduate with the designation "Honors in Accountancy," "Honors in Business and Enterprise Management," or "Honors in Finance."

For additional information, interested students should consult a member of the faculty of the Wake Forest School of Business.

## Finance, B.S.

### Requirements

The finance major in the School of Business prepares students to think analytically and critically by exposing them to theory and its real-world applications. Finance majors typically pursue careers in corporate finance and financial services, including portfolio management, investment and commercial banking, and financial consulting. The major emphasizes a strong concentration in finance and quantitative analysis and is supported by accounting concepts beyond the introductory level.

Requires the following courses:

Code	Title	Hours
ACC 111	Introductory Financial Accounting	3
ACC 211	Intermediate Accounting I	4
ACC 212	Intermediate Accounting II	4
ACC 221	Introductory Management Accounting	3
BEM 201	Quantitative Analysis I	3
BEM 211	Organizational Behavior	3
BEM 221	Principles of Marketing	3
BEM 241	Production and Operations Management	3
BEM 251	Management Information Systems	3
BEM 261	Legal Environment of Business	3
BEM 371	Strategic Management	3
or BEM 372	Strategic Management in Entrepreneurial Firms	
BEM 388	Management Simulation	1.5
ECN 150	Introduction to Economics	3
FIN 203	Applied Quantitative Analysis for Finance	3
FIN 231	Principles of Finance	3
FIN 232	Intermediate Finance	3
MST 111	Calculus with Analytic Geometry I	4
or MST 112	Calculus with Analytic Geometry II	
Select a minimum of 9 hours of the following:		9
FIN 233	Equity Investments	
FIN 234	International Finance	
FIN 235	Selected Topics in Finance	
FIN 236	Private Equity	
FIN 237	Financial Markets and Institutions	
FIN 238	Financial Modeling	
FIN 239	Financial Data Analytics	
FIN 331	Corporate Finance	
FIN 332	Banking and Investment Banking	
FIN 333	Advanced Finance	
FIN 335	Financial Derivatives	
FIN 336	Fixed Income and Financial Engineering	
FIN 338	Real Estate Finance	

### Honors

School of Business students (exclusive of mathematical business majors) with a grade point average of at least 3.0 on all college work and who are eligible for membership in Beta Gamma Sigma are invited to

apply for admission to the honors program in business and accountancy. A project, paper, or readings, and an oral presentation or examination are required. Those who successfully complete the requirements specified by the School graduate with the designation "Honors in Accountancy," "Honors in Business and Enterprise Management," or "Honors in Finance." For additional information, interested students should consult a member of the faculty of the Wake Forest School of Business.

## Mathematical Business, B.S. Requirements

Students interested in pursuing this joint major must be granted formal admission to the program upon application to the School of Business' Committee on Admissions, Continuation, and Scholarships. To graduate from Wake Forest University with a major in mathematical business, the student must satisfy the requirements for graduation of both the Department of Mathematics and Statistics and the School of Business. This interdisciplinary program, consisting of no more than 51.5 hours, prepares students for careers in business with a strong background in mathematics. The major has the following course requirements:

Code	Title	Hours
<b>Required Major Courses</b>		
MST 113	Multivariable Calculus	4
MST 121	Linear Algebra I	3
MST 253	Operations Research	3
STA 112	Introduction to Regression and Data Science	3
MST/STA 353 or STA 310	Probability Models Probability	3
ACC 221	Introductory Management Accounting	3
BEM 211	Organizational Behavior	3
BEM 221	Principles of Marketing	3
BEM 241	Production and Operations Management	3
BEM 251	Management Information Systems	3
BEM 261	Legal Environment of Business	3
BEM 388	Management Simulation	1.5
BEM 392	Seminar in Mathematical Business Analysis	3
FIN 231	Principles of Finance	3
Select a minimum of two additional courses *		6
<b>Prerequisites for Admission</b>		
ACC 111	Introductory Financial Accounting	3
ECN 150	Introduction to Economics	3
MST 112	Calculus with Analytic Geometry II	4
STA 112	Introduction to Regression and Data Science	3
<b>Recommended Electives</b>		
BEM 383	Seminar in Negotiations	3
BEM 371 or BEM 372	Strategic Management Strategic Management in Entrepreneurial Firms	3
CSC 111 & CSC 112	Introduction to Computer Science and Fundamentals of Computer Science **	8

STA 362	Multivariate Statistics **	3
STA 363	Introduction to Statistical Learning **	3

\* Chosen from among mathematics, statistics, economics, and business, with at least one being a mathematics or statistics course (chosen from 3-hour courses at the 300-level or higher), excluding MST 381.

\*\* CSC 111 and/or CSC 112 and STA 362 and/or STA 363 are strongly recommended electives for the major.

## Honors

Mathematical business majors with a grade point average of at least 3.0 on all college work and a minimum grade point average of 3.5 in the major are invited to apply for admission to the honors program in mathematical business. A project, paper, or readings, and an oral presentation or examination are required. Those who successfully complete the requirements specified by the School and the Mathematics Department graduate with the designation "Honors in Mathematical Business." For additional information, interested students should consult a member of the faculty of the Mathematics Department or the Wake Forest School of Business.

## Undergraduate Business Program Admission

Admission to the School of Business undergraduate program is by formal application, and applicants are screened by the School's Committee on Admissions, Continuation, and Scholarships. Before being considered for admission to the School of Business, the applicant first must have been admitted to Wake Forest University. Minimum requirements for admission to the Wake Forest School of Business undergraduate program are as follows:

1. Completion of 49 hours with a cumulative WFU grade point average of 2.85.
2. Completion of the following courses with a minimum grade of C in each course:

Code	Title	Hours
ECN 150	Introduction to Economics	3
MST 111 or MST 112	Calculus with Analytic Geometry I * Calculus with Analytic Geometry II	4
ACC 111	Introductory Financial Accounting	3
BEM 201	Quantitative Analysis I **	3

\* MST 112 for the mathematical business major.

\*\* STA 112 for the mathematical business major.

3. Based on availability, one additional School of Business course:

Code	Title	Hours
ACC 221	Introductory Management Accounting	3
BEM 211	Organizational Behavior	3
BEM 221	Principles of Marketing	3
BEM 251	Management Information Systems	3
BEM 261	Legal Environment of Business	3
FIN 231	Principles of Finance	3

Students who have not fully met the above requirements may still apply while requirements are in progress. The number of students who can be accommodated is limited. Meeting the minimum requirements is not a



guarantee of admission. Therefore, the School of Business reserves the right to deny admission or readmission to any student even though he or she meets the minimum requirements. Readmission to the Wake Forest University School of Business undergraduate program must be approved by the Committee on Admissions, Continuation, and Scholarships but first requires readmission to Wake Forest University, requirements for which are provided in this bulletin.

## MSA Program Admission

Admission to the MSA program requires undergraduate business school students who have completed ACC 211 to submit an application to the MSA program during their third year of study. The required application components include the online application and an unofficial transcript.

Students who are currently enrolled in the School of Business's undergraduate accounting or finance programs are automatically accepted into the MSA program provided they maintain a 3.0 GPA in their major and earn no less than a C+ in the following accounting courses: ACC 111, ACC 211, ACC 212, ACC 221 and ACC 237. All application components are due by December 1 (of the third year of study).

Additional information may be found [here](#).

## Transfer of Credit from Other Schools

It is expected that most work toward degrees offered by the Wake Forest University School of Business will be taken in the School of Business. For students wishing to transfer credit from other schools towards their major, the following general guidelines apply:

1. All approvals for transfer credits from other institutions to the School of Business must be:
  - a. approved prior to admission into the School and will be limited to 6 hours for transfer students
  - b. pre-approved before such courses are taken by non-transfer students
2. Courses taken at AACSB accredited schools will be considered for transfer credit per (1) above. Transfer credit for all courses taken at schools not accredited by the AACSB generally requires a validation exam in order to be considered for transfer credit.
3. Study abroad transfer credit will be considered per (1) above for coursework taken through international programs sponsored by AACSB accredited schools or offered by select universities or programs approved by the School of Business faculty. Courses taken through international programs not meeting these qualifications will require a validation exam in order to be considered for transfer credit [per (1) above].
4. Courses passed at another school with the minimum passing grade at that school may not be transferred.
5. No work in courses from two-year schools will be accepted for major credit.
6. Courses taken elsewhere in subjects not offered at the School of Business will not necessarily count toward the hours required in the School of Business.
7. A maximum of two courses (6 hours) may be transferred after admission into the School of Business (including any approved economics course counting toward the major).
8. Students earning 6 or more hours of School of Business credit through the Wake Forest Barcelona Program and the Wake Forest London Program may not also transfer credit from programs offered by institutions other than the Wake Forest School of Business.

9. Students entering the School of Business from Wake Forest College must take ACC 111 within the School of Business. Students transferring into the School of Business from another university must take a validation examination for ACC 111 to be eligible for transfer credit.

Students from Wake Forest College (non-School of Business majors) wishing to transfer business or accounting courses taken at other institutions towards credit as general electives in the College may do so upon review of that course's description in the school's catalog (and in some cases review of the syllabus for that course).

## Requirements for Continuation

In addition to the requirements outlined in the Procedures section of this bulletin, a student must be academically responsible and must show satisfactory progress toward completing the requirements for the degree. The administration of the Wake Forest School of Business notifies the student if satisfactory progress is not being made and, after consultation with the Committee on Admission, Continuation, and Scholarships, decides if the student may continue as a major in the School of Business.

## Requirements for Graduation

The Wake Forest School of Business confers the bachelor of science degree with a major in accountancy, business and enterprise management, finance, or mathematical business. The requirements for completion of the degrees are those in effect at the time the student enters the School of Business. No courses in the undergraduate School of Business can be taken pass/fail unless they are offered on that basis. In addition, the POI designation for any course does not override any program requirements for the major.

In addition to the courses stipulated, the student in business and accountancy also must meet the following requirements for graduation:

1. *a minimum of 120 hours, including the basic and divisional requirements established by Wake Forest College*
2. *a minimum grade point average of 2.0 on all work attempted at Wake Forest*
3. *a minimum grade point average of 2.0 on all work attempted at other institutions*
4. *an overall 2.0 grade point average in all courses required in the major.*

## Beta Gamma Sigma, National Honor Society

Membership in Beta Gamma Sigma is the highest national recognition a student can receive in an undergraduate program in accounting or business. To be eligible for membership, a student must rank in the top ten percent of the junior or senior class.



# WAKE FOREST COLLEGE FACULTY

*Date following name indicates year of appointment. Listings represent those faculty teaching either full or part-time during the fall 2020 and/or spring 2021.*

**Irma V. Alarcón** (2005)

Associate Professor of Spanish and Italian  
BA, Universidad de Concepción (Chile); MA, PhD, Indiana University.

**Jane W. Albrecht** (1987)

Professor of Spanish and Italian  
BA, Wright State University; MA, PhD, Indiana University.

**Guillermo Alesandroni** (2020)

Visiting Assistant Professor  
BS, National University of Rosario; MS, University of Illinois at Chicago; PhD, Oklahoma State University.

**Rebecca W. Alexander** (2000)

F.M. Kirby Family Faculty Fellow and Professor of Chemistry  
BS, Delaware; PhD, University of Pennsylvania.

**Lucy Alford** (2020)

Assistant Professor of English  
BA, University of Virginia; Phd, Stanford University; PhD, University of Aberdeen.

**Edward E. Allen** (1991)

Professor of Mathematics  
BS, Brigham Young University; MA, PhD, University of California (San Diego).

**Justin Allman** (2020)

Assistant Teaching Professor  
BS, Georgia Institute of Technology; MA, MAEd, Wake Forest University; PhD, University of North Carolina at Chapel Hill.

**Kate R.. Allman** (2014)

Adjunct Assistant Professor of Psychology  
BA, Emory University; MEd, Wake Forest University; PhD, University of North Carolina at Chapel Hill.

**Sarra Alqahtani** (2019)

Assistant Professor of Computer Science  
BS, MS, King Saud University; PhD, The University of Tulsa.

**Jacque L. Amoureux** (2011)

Associate Teaching Professor of Politics and International Affairs  
BS, MPA, Boise State University; MA, University of Iowa; PhD, Brown University.

**Paul R. Anderson** (1990)

Professor of Physics  
BS, University of Wisconsin-Madison; MA, PhD, University of California (Santa Barbara).

**David J. Anderson** (1992)

Professor of Biology  
BA, Denison University; MS, University of Michigan; PhD, Pennsylvania University.

**T. Michael Anderson** (2010)

Associate Professor of Biology  
BS, Oregon State University; PhD, Syracuse University.

**Sharon G. Andrews** (1994)

Professor of Theatre  
BA, UNC-Chapel Hill; MFA, UNC-Greensboro.

**Kendra Andrews** (2021)

Assistant Teaching Professor of English  
BA, University of North Carolina at Chapel Hill; MA, University of North Carolina at Charlotte; PhD, North Carolina State University.

**Elizabeth Mazza Anthony** (1998)

Teaching Professor of French Studies  
BA, Duke University; MA, PhD, UNC-Chapel Hill.

**Diana R. Arnett** (2014)

Associate Teaching Professor of Biology  
BS, MA, Youngstown State University; PhD, Kent State University.

**Miriam A. Ashley-Ross** (1997)

Professor of Biology  
BS, Northern Arizona University; PhD, University of California (Irvine).

**Robert J. Atchison** (2010)

Associate Professor of Communication and Director of Debate  
BA, MA, Wake Forest University; PhD, University of Georgia.

**Alison Atkins** (2013)

Assistant Teaching Professor of Spanish and Italian  
BA, Wake Forest University; MA, PhD, University of Virginia.

**Emily A. Austin** (2009)

Assistant Professor of Philosophy  
BA, Hendrix College; PhD, Washington University (St. Louis).

**R. Scott Baker** (2001)

Associate Professor of Education  
BA, Evergreen State College; MA, Tufts University; PhD, Teacher's College of Columbia University.

**Duff Baker-Jarvis** (2019)

Visiting Assistant Professor  
BA, University of Colorado at Boulder; PhD, Michigan State University.

**Grey Ballard** (2016)

Assistant Professor of Computer Science and Dunn-Riley Faculty Fellow  
BS, MA, Wake Forest University; PhD, University of California Berkeley.

**Wanda A. Balzano** (2005)

Chair and Associate Professor of Women's, Gender, and Sexuality Studies  
BA, MA, University of Naples, Italy; MA, PhD, University College, Dublin.

**Adrian Bardon** (2002)

Associate Professor of Philosophy  
BA, Reed College; MA, Washington; PhD, University of Massachusetts (Amherst).

**Ilaria Bargigia** (2020)

Assistant Professor of Physics  
Msc, PhD, Polytechnic University of Milan (Italy).

**Phillip G. Batten** (1991)

Adjunct Assistant Professor of Psychology

BA, PhD, UNC-Chapel Hill; MA, Yale University; MA, Wake Forest University.

**Brittany Battle** (2019)

Assistant Professor of Sociology  
BA, University of Delaware; MA, PhD, Rutgers University, New Brunswick.

**Kristen M. Beavers** (2012)

Associate Professor of Health and Exercise Science  
BS, Cornell University; MPH, UNC-Chapel Hill; PhD, Baylor University.

**H. Kenneth Bechtel** (1981)

Associate Professor of Sociology  
BA, MA, North Dakota; PhD, Southern Illinois University (Carbondale).

**Jack Bell** (2017)

Visiting Assistant Professor of English  
BA, University of Richmond; PhD, Duke University.

**Lina Benabdallah** (2017)

Assistant Professor of Politics and International Affairs  
BA, University of Batna, Algeria; MA, PhD, University of Florida.

**Margaret C. Bender** (2000)

Associate Professor of Anthropology  
BS, Cornell; MA, PhD, University of Chicago.

**Kenneth S. Berenhaut** (2000)

Professor of Mathematics  
BA, MS, University of Manitoba (Canada); MA, PhD, University of Georgia.

**Michael J. Berry** (1985)

Professor of Health and Exercise Science  
BS, Jacksonville State University; MA, Southeastern Louisiana University; PhD, Texas A&M University.

**Deborah L. Best** (1972, 1978)

William L. Poteat Professor of Psychology  
BA, MA, Wake Forest University; PhD, UNC-Chapel Hill.

**Ulrich Bierbach** (1999)

Professor of Chemistry  
MS, PhD, University of Oldenburg (Germany); MM, UNC-Greensboro.

**Erin E. Binkley** (2014)

Associate Professor of Counseling  
BA, UNC-Chapel Hill; MA, Wake Forest University; PhD, Idaho State University.

**Katharine (Polly) A. Black** (2010)

Assistant Teaching Professor of Communication  
BA, Vassar College; MA, Columbia University; MBA, University of Virginia Darden School of Business; PhD, University of Birmingham UK.

**Lisa M. Blee** (2009)

Associate Professor of History  
BA, Lewis and Clark College; PhD, University of Minnesota.

**Terry D. Blumenthal** (1987)

Professor of Psychology  
BS, University of Alberta (Edmonton); MS, PhD, University of California (Berkeley).

**Sarah Bogard** (2020)

Visiting Assistant Professor of Spanish and Italian

BA, University of California, Santa Cruz; MA, Middlebury College; PhD, University of Virginia.

**Keith D. Bonin** (1992)

Professor of Physics and Associate Provost for Research and Scholarly Inquiry  
BS, Loyola University; PhD, University of Maryland.

**Lynn S. Book** (2005)

Teaching Professor  
BFA, Memphis College; MFA, School of the Art Institute of Chicago.

**Abbey Bourdon** (2017)

Sterge Faculty Fellow and Assistant Professor  
BA, University of Richmond; PhD, Wesleyan University.

**Rian E. Bowie** (2006)

Z. Smith Reynolds Foundation Fellow, Associate Teaching Professor  
BA, Tougaloo College; MA, Temple University; PhD, Emory University.

**Stephen B. Boyd** (1985)

Easley Professor of Religion  
BA, University of Tennessee; MDiv, Th.D., Harvard Divinity School.

**Tina M. Boyer** (2010)

Assistant Professor of German  
BA, MA, New Mexico; PhD, University of California (Davis).

**Anne Boyle** (1986)

Professor of English  
BA, Wilkes College; MA, PhD, University of Rochester.

**Anthony Bradley** (2014)

Assistant Professor of Military Science  
BS, Park University.

**Shannon T. Brady** (2018)

Denton Family Faculty Fellow and Assistant Professor of Psychology  
BA, Lewis & Clark College; MS, Black Hills State University; PhD, Stanford University.

**Erin Branch** (2011)

Associate Teaching Professor of English and Writing Program Administrator  
AB, Middlebury College; MA, PhD, UNC-Chapel Hill.

**R. Saylor Breckenridge** (2001)

Associate Professor of Sociology  
BA, MA, PhD, University of Arizona.

**Alexandra Brewer** (2020)

Assistant Professor of Sociology  
BA, Barnard College; MA, PhD, University of Chicago.

**Thomas Brister** (2005)

Teaching Professor of Politics and International Affairs  
BS, Georgetown University; MA, PhD, University of Virginia.

**Michaëlle L. Browsers** (2000)

Professor of Politics and International Affairs  
BA, Whitman College; MA, University of Virginia; PhD, University of Minnesota.

**Hana E. Brown** (2011)

Associate Professor of Sociology

BA, Bryn Mawr College; MA, PhD, University of California (Berkeley).

**M. Alan Brown** (2012)

Associate Professor of Education and Bryant/Groves Faculty Fellow  
BA, Appalachian State University; MA, Wake Forest University; PhD, University of Alabama.

**Christopher Brown** (2016)

Assistant Professor of English  
BA, Georgetown University; JD, Georgetown University; MA, PhD, University of Maryland.

**Robert A. Browne** (1980)

Professor of Biology  
BS, MS, Dayton University; PhD, Syracuse University.

**Peter H. Brubaker** (1994)

Professor of Health and Exercise Science, Chair  
BS, East Stroudsburg University; MA, Wake Forest University; PhD, Temple University.

**Nelson C. Brunsting** (2020)

Adjunct Professor  
BA, Wake Forest University; MA, Victoria University of Wellington, New Zealand; PhD, University of North Carolina at Chapel Hill.

**Christy M. Buchanan** (1992)

Professor of Psychology  
BA, Seattle Pacific University; PhD, University of Michigan.

**Stephanie C. Bunch** (2021)

Adjunct Assistant Professor of Health and Exercise Science  
BS, Appalachian State University; MPH, University of Arizona.

**Jennifer J. Burg** (1993)

Professor of Computer Science  
BA, Elizabethtown College; MA (English), MA (French), University of Florida; PhD, University of Central Florida.

**Diego Burgos** (2011)

Associate Professor of Spanish and Italian  
BA, University of Antioquia, Medellin (Colombia); MA, Pompeu Fabra University Institute for Applied Linguistics; PhD, Pompeu Fabra University.

**Rebecca Byer** (2018)

Visiting Assistant Professor  
BFA, University of Illinois at Urbana-Champaign.

**Eleni F. Caldwell** (2021)

Visiting Clinical Professor  
BA, MEd, High Point University; EdD, University of North Carolina at Greensboro.

**Brian Calhoun** (2012)

Associate Professor of the Practice in Education  
BS, MBA, MA, Wake Forest University.

**Alan S. Cameron** (2018)

Adjunct Associate Professor of Psychology  
BA, University of North Carolina at Chapel Hill; MA, Wake Forest University; PhD, University of North Carolina at Chapel Hill.

**Mollie Rose Canzona** (2015)

Assistant Professor of Communication  
BA, Salem College; MA, Emerson College; PhD, George Mason University.

**Eric D. Carlson** (1995)

Associate Professor of Physics  
BS, Michigan State University; MA, PhD, Harvard University.

**Richard D. Carmichael** (1971)

Professor of Mathematics  
BS, Wake Forest University; MA, PhD, Duke University.

**Simone M. Caron** (1991)

Professor of History  
BA, Bridgewater State University; MA, Northeastern; PhD, Clark University.

**Jacqui Carrasco** (1999)

Professor of Music  
BA, University of California (Los Angeles); MM, DMA, State University of New York (Stony Brook).

**David L. Carroll** (2003)

Professor of Physics  
BSc, North Carolina State University; PhD, Wesleyan University.

**Cheyenne Carter** (2014)

Assistant Teaching Professor of Counseling  
BA, Baylor University; MS, Tarleton State University; PhD, University of North Texas.

**Stewart Carter** (1982)

Wake Forest Professor and Professor of Music  
BME, Kansas; MS, Illinois; PhD, Stanford University.

**Donald R. Casares** (2017)

Assistant Professor of Counseling  
BA, Franciscan University; MA, PhD, University of Holy Cross.

**Brenna Casey** (2021)

Visiting Assistant Professor of English  
BA, Boston College; MFA, University of Notre Dame; MA, PhD, Duke University.

**Tammy H. Cashwell** (2013)

Associate Teaching Professor of Counseling  
BS, Appalachian State University; MS, Mississippi State University; PhD, Mississippi State University.

**Daniel Castelblanco** (2021)

Visiting Assistant Professor of Spanish and Italian  
BA, Pontificia Universidad Javeriana; MA, PhD, Georgetown University.

**Justin Catanoso** (1993)

Professor of the Practice in Journalism  
BA, Pennsylvania State; MA, Wake Forest University.

**Amy Catanzano** (2013)

Associate Professor of English  
BA, Colorado State University; MFA, University of Iowa.

**Daniel A. Cañas** (1987)

Associate Professor of Computer Science  
BS, Tecnológico de Monterrey (Mexico); MS, Georgia Institute of Technology; PhD, University of Texas (Austin).

**Frederick H. Chen** (2000)

Professor of Economics  
BS, University of Wisconsin-Madison; MA, PhD, University of Chicago.

**Minghan Chen** (2019)

Assistant Professor of Computer Science  
BS, Jiangnan University; MS, Northeastern University; PhD, Virginia Polytechnic Institute and State University.

**Samuel S. Cho** (2010)

Associate Professor of Physics and Computer Science  
BS, University of Maryland, Baltimore County; MS, PhD, University of California, San Diego.

**N. Keita. Christophe** (2021)

Assistant Professor of Psychology  
BA, Washington College; MA, PhD, University of North Carolina at Greensboro.

**Sherriann Lawson Clark** (2009)

Assistant Professor of Anthropology  
BS, Pennsylvania State University; MA, PhD, American University.

**Philip B. Clarke** (2011)

Associate Professor of Counseling  
BA, Wake Forest University; MS, UNC-Greensboro; PhD, UNC-Greensboro.

**Elizabeth A. Clendinning** (2014)

Associate Professor of Music  
AB, University of Chicago; MM, PhD, Florida State University.

**Benjamin Coates** (2012)

Associate Professor of History  
BA, Stanford University; MA, M. Phil, PhD, Columbia University.

**R. David Coates** (1999)

Worrell Professor of Anglo-American Studies in Politics and International Affairs  
BA, York University; PhD, Oxford University.

**Carolyn Coberly** (2020)

Visiting Assistant Professor  
BA, Cornell University; MA, Harvard University; PhD, University of Virginia.

**Daniel Cohen** (2017)

Professor of Practice and John C. Whitaker Jr. Executive Director of the Center for Entrepreneurship  
BS, Towson University; MAcc, George Washington University; PhD, Case Western Reserve University.

**Bruce Cole** (2017)

Assistant Teaching Professor of Spanish and Italian  
BA, MAT, Middle Tennessee State University.

**Veronica T. Cole** (2019)

Assistant Professor of Psychology  
BA, Wellesley College; MA, PhD, University of North Carolina at Chapel Hill.

**Guillaume Coly** (2020)

Assistant Professor of French Studies  
BA, MA, Université Cheikh Anta Diop de Dakar, Senegal; PhD, University of South Carolina.

**Christa L. Colyer** (1997)

Professor of Chemistry  
BSc, Trent University (Canada); MSc, University of Guelph (Canada); PhD, Queen's University (Canada).

**Lindsay Rae Comstock** (2008)

Assistant Professor of Chemistry

BS, Northern Arizona University; PhD, University of Wisconsin.

**William E. Conner** (1988)

Professor of Biology  
BA, University of Notre Dame; MS, PhD, Cornell University.

**Gregory Cook** (1999)

Associate Professor of Physics  
BS, PhD, UNC-Chapel Hill.

**Rachel Corbman** (2019)

Visiting Assistant Professor of Women's, Gender, and Sexuality Studies  
PhD, Stonybrook.

**Regina J. Cordy** (2018)

Assistant Professor of Biology  
BA, University of Virginia; PhD, Harvard University.

**Allin F. Cottrell** (1989)

Professor of Economics  
BA, Oxford (Merton College); PhD, Edinburgh.

**Jamie E. Crockett** (2014)

Assistant Professor of Counseling  
BA, Keene State College; MS, PhD, UNC-Greensboro.

**Earl P. Crow** (2006)

Part-time Professor of Religion and Philosophy  
BA, BD, Duke University; PhD, The University of Manchester, UK.

**Patricia M. Cunningham** (1978)

Francis P. Gaines Professor of Education  
BA, Rhode Island; MS, Florida State University; EdS Indiana State University; PhD, University of Georgia.

**John J. Curley** (2008)

Associate Professor  
AB, Duke University; MA, University of Manchester/Sotheby's Institute; MA, PhD, Yale University.

**James F. Curran** (1988)

Professor of Biology  
BAAS, University of Delaware; MA, PhD, Rice University.

**Joshua Currie** (2020)

Assistant Professor of Biology  
BS, Tennessee Technological University; PhD, University of North Carolina at Chapel Hill.

**Jane Kathleen Curry** (1998)

Professor of Theatre  
BFA, University of Illinois (Urbana-Champaign); MFA, Brown University; PhD, University of New York.

**E. Mark Curtis** (2014)

Associate Professor of Economics  
BA, Furman; MA, Duke University; PhD, Georgia State University.

**Lucy D'Agostino McGowan** (2019)

Assistant Professor  
BA, University of North Carolina at Chapel Hill; MS, Washington University School of Medicine; PhD, Vanderbilt University.

**Chanchal Dadlani** (2011)

Associate Professor

BA, Columbia University; AM, PhD, Harvard University.

**Dale Dagenbach** (1990)  
Professor of Psychology  
BA, New College; MA, PhD, Michigan State University.

**Sara Dahill-Brown** (2012)  
Associate Professor of Politics and International Affairs  
BA, Trinity University; MA, PhD, University of Wisconsin-Madison.

**Mary M. Dalton** (1986)  
Professor of Communication  
BA, Wake Forest University; MA, PhD, UNC (Greensboro).

**Christina M. Dalton** (2014)  
Associate Professor of Economics  
BA, Cornell; PhD, University of Minnesota.

**John T. Dalton** (2010)  
Associate Professor of Economics  
BA, UNC-Chapel Hill; PhD, University of Minnesota.

**Nicole M. Dalzell** (2017)  
Assistant Teaching Professor  
BA, University of South Florida; MS, PhD, Duke University.

**Merih Danali** (2021)  
Assistant Professor  
BA, Bogazici University; MA, Pennsylvania State University; PhD, Harvard University.

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Associate Professor of Biology  
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**Jane M. Ryngaert** (2018)

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**Akbar Salam** (2003)

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BA, UNC-Chapel Hill; PhD, UNC-Greensboro.

**Lori Watson (2019)**

Teacher Scholar Postdoctoral Fellow  
BA, Emory University; BS, Florida Atlantic University; PhD, University of Georgia.

**Christian E. Waugh (2010)**

F.M. Kirby Family Faculty Fellow and Associate Professor of Psychology  
BS, College of William and Mary; PhD, University of Michigan.

**Mary R. Wayne-Thomas (1980)**

Professor of Theatre and F.M. Kirby Family Faculty Fellow

BFA, Pennsylvania State University; MFA, Ohio State University.

**Ivan Weiss** (2018)

Assistant Professor of the Practice, Journalism  
BA, Haverford College; MA, London Film School (Screenwriting), UNC-Chapel Hill.

**Helga A. Welch** (1993)

Professor of Politics and International Affairs  
MA, PhD, University of Munich.

**Mark E. Welker** (1987)

William L. Poteat Professor of Chemistry  
BS, UNC-Chapel Hill; PhD, Florida State University.

**John Welsh** (2018)

Assistant Teaching Professor of Spanish and Italian  
BA, University of Notre Dame; MA, PhD, Harvard University.

**Larry Weng** (2021)

Assistant Professor  
BM, Columbia University ; DMA, Yale University.

**Robert M. Whaples** (1991)

Hough Family Professor and Professor of Economics  
BA, Maryland; PhD, University of Pennsylvania.

**Jarrod L. Whitaker** (2005)

Professor of Religion  
BA, MA, University of Canterbury (New Zealand); PhD, University of Texas (Austin).

**Elisabeth Whitehead** (2012)

Associate Teaching Professor of English  
BA, St. Mary's College of Maryland; MFA, University of Iowa.

**Heiko Wiggers** (2005)

Assistant Professor of German  
BA, MA, Eastern Washington University; PhD, University of Washington at Seattle.

**Chistofer C. Wiley** (2020)

Adjunct Professor  
BA, MAEd, Wake Forest University.

**Charles Wilkins** (2006)

Associate Professor of History  
BA, Duke University; MA, Ohio State University; PhD, Harvard University.

**Betina C. Wilkinson** (2010)

Associate Professor of Politics and International Affairs  
BA, Loyola University; MA, PhD, Louisiana State University.

**Patricia K. Willis** (2007)

Part-time Professor of Women's, Gender, and Sexuality Studies  
BA, East Carolina University; MA, Florida State University; MA, PhD, State University of New York (Albany).

**Eric Wilson** (1998)

Thomas H. Pritchard Professor of English  
BA, Appalachian State University; MA, Wake Forest University; PhD, The Graduate Center of the City University of New York.

**Lamar Wilson** (2019)

Assistant Professor of English

BS, Florida A&M University; MFA, Virginia Polytechnic and State University; PhD, University of North Carolina Chapel Hill.

**Stephen M.. Winter** (2020)

Assistant Professor of Physics  
Bsc, PhD, University of Waterloo (Canada).

**Guy Witzel** (2018)

Assistant Teaching Professor of English  
BA, University of Wisconsin Oshkosh; MA, Ohio State University; PhD, State University of New York at Buffalo.

**Nicholas Wolters** (2016)

Assistant Professor of Spanish and Italian  
BA, York College; MA, University of Delaware; PhD, University of Virginia.

**John H. Wood** (1985)

Reynolds Professor of Economics  
BS, Ohio; MA, Michigan State University; PhD, Purdue University.

**Sharon K. Woodard** (1998)

Associate Professor of the Practice of Health and Exercise Science  
BS, Central Michigan University; MS, Wake Forest University.

**Boston Woolfolk** (2020)

Visiting Assistant Professor of Spanish and Italian  
BA, University of Virginia; MA, PhD, Vanderbilt University.

**Kimberly T. Wortmann** (2018)

Assistant Professor of Religion  
BA, Macalaster College; MTS, Harvard Divinity School; PhD, Harvard University.

**David Wren** (2013)

Associate Teaching Professor of Chemistry  
BS, University of California (Davis); MS, University of Colorado (Boulder); PhD, University of Northern Colorado (Greeley).

**Abbie K. Wrights** (2016)

Assistant Professor of the Practice of Health & Exercise Science  
BA, Messiah College; MS, Wake Forest University.

**Raymond L. Wyatt** (1956)

Professor Emeritus of Biology  
BS, Wake Forest University; PhD, UNC-Chapel Hill.

**David Yamane** (2005)

Associate Professor of Sociology  
BA, University of California (Berkeley); MS, PhD, University of Wisconsin-Madison.

**Kanako Yao** (2021)

Assistant Teaching Professor of East Asian Languages and Cultures  
BA, Showa Women's University, Japan; MA, University of Findlay; MA, PhD, Ohio State University.

**Tina Yarborough Liggins** (2001)

Assistant Teaching Professor of Dance  
BFA, UNC, Greensboro; MFA, Virginia Tech.

**Mir Yarfitz** (2013)

Associate Professor of History  
BA, Reed College; MA, PhD, University of California (Los Angeles).

**Saami Yazdani** (2019)

Associate Professor of Engineering

BS, MS, Virginia Tech; PhD, Wake Forest University.

**Lynne Yengulap (2019)**

Assistant Teaching Professor

BS, MS, Miami University; PhD, University of Kansas.

**Barry Yeoman (2019)**

Adjunct Professor of Journalism

BA, New York University.

**Kyana Young (2019)**

Assistant Professor of Engineering

BS, University of Arizona; PhD, University of Wisconsin Madison.

**Qiaona Yu (2016)**

Assistant Professor of East Asian Languages and Cultures

BA, Beijing Foreign Studies University; MA, Peking University; PhD, University of Hawaii (M?noa).

**Chu (Alex) Yu (2020)**

Assistant Professor of Economics

BA, Northwestern University; MA, PhD, University of California at San Diego.

**Yaqi Yuan (2020)**

Adjunct Assistant Professor of Sociology

BA, MA, Hunan Agricultural University; PhD, SUNY Buffalo.

**Phoebe Zerwick (2010)**

Associate Professor of the Practice

BA, University of Chicago; MS, Columbia University.

**Clifford W. Zeyl (1997)**

Professor of Biology

BSc, University of Guelph; MSc, PhD, McGill University.

**Qiong Zhang (2008)**

Associate Professor of History

BA, MA, Wuhan University; PhD, Harvard University.

**Margaret D. Zulick (1991)**

Associate Professor of Communication

BM, Westminster Choir College; MA, Earlham School of Religion; MTS, Garrett-Evangelical Theological Seminary.



# SCHOOL OF BUSINESS FACULTY

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*Date following name indicates year of appointment. Listings represent those faculty teaching either full or part-time during the fall of 2019 and/or spring 2020.*

**George R. Aldhizer III (2001)**

Associate Professor of Accountancy  
BS, BA, Richmond; PhD, Texas Tech.

**Tom Aleman (2018)**

Professor of the Practice  
BS, BA, University of North Carolina at Charlotte.

**Michael Ames (2020)**

Adjunct Professor of Practice  
BA, University of Georgia, Athens; MBA, University of North Carolina at Chapel Hill.

**Anthony J. Amoroso (2019)**

Associate Teaching Professor  
BS, Frostburg State College; MPA, West Virginia University; PhD, University of Georgia.

**Phillip C. Anderson (2019)**

Associate Teaching Professor  
BSEE, Purdue University; MSEE, Illinois Institute of Technology;  
MBA, University of California, Los Angeles, Anderson School of Management; PhD, Massachusetts Institute of Technology, Sloan School of Management.

**Derek R. Avery (2015)**

Professor, David C. Darnell Presidential Chair in Principled Leadership  
BS, Tulane; MA, PhD, Rice University.

**Jiaru Bai (2019)**

Assistant Professor  
PhD, University of California Irvine.

**Terry A. Baker (1998)**

Associate Professor  
BA, Miami; MS, Illinois; MBA, Chicago; PhD, Kentucky.

**Ben Baker (2020)**

Adjunct Senior Lecturer  
BS, BA, Richmond University; PhD, Texas Tech University.

**Tonya E. Balan (2020)**

Associate Teaching Professor  
BS, PhD North Carolina State University.

**Roger L. Beahm (2005)**

Professor of the Practice  
BS, MBA, Colorado (Boulder).

**S. Douglas Beets (1987)**

Professor  
BS, Tennessee; MAcc, PhD, Virginia Poly.Inst. & SU.

**Ann C. Bliss (2016)**

Visiting Professor of the Practice  
BA, University of California, San Diego; JD, University of San Diego.

**Derrick S. Boone (1997)**

Associate Professor  
BA, UNC-Chapel Hill; MBA, Fairleigh Dickinson; PhD, Duke.

**Peter Brewer (2020)**

Lecturer  
BS, Penn State University; MA, University of Virginia; PhD, University of Tennessee.

**Peter Brockway (2020)**

Adjunct Professor of the Practice, Executive in Residence  
BBA, Stetson University; MBA, Harvard Business School.

**Holly H. Brower (2005)**

Associate Professor  
BS, Wake Forest University; MS, Iowa State; PhD, Purdue.

**John A. Butler (2017)**

Visiting Professor of the Practice  
BBA, University of Notre Dame; MBA, University of Texas (Austin).

**Jeff Camm (2015)**

Inmar Presidential Chair in Business Analytics & Professor  
BS, Xavier; PhD, Clemson.

**Thomas G. Canace (2009)**

Associate Professor  
BS, St. Joseph's; MBA, Duke; PhD, South Carolina.

**Anna Ciani (2010)**

Associate Professor  
BS, Villanova; MA, St. Joseph's College; MS, Wake Forest University; PhD, Duke.

**Jon Clift (2014)**

Affiliate Professor of the Practice  
MEM, Duke University.

**William L. Davis (1996)**

Teaching Professor  
BA, Carson-Newman College; MA, Wake Forest University; PhD, Ohio State.

**Pat H. Dickson (2006)**

Professor  
BS, MS, Mississippi College; PhD, University of Alabama.

**Lisa Dragoni (2015)**

Exxon-Wayne Calloway Fellow & Associate Professor  
BA, Franklin & Marshall; MA, George Washington; PhD, University of Maryland.

**Jonathan E. Duchac (1993)**

D. Wayne Calloway Professor of Accountancy  
BBA, MAcc, Wisconsin-Madison; PhD, Georgia.

**Mark E. Evans (2014)**

Associate Professor  
BBA, MBA, Radford University; PhD, Duke.

**Bob Fly (2020)**

Adjunct Professor of the Practice  
BBA, Texas Tech University; MA, Michigan State University.

**Kenneth D. Ford (2019)**

Assistant Professor

BSBA, University of Nebraska; MBA, University of North Carolina at Chapel Hill; PhD, University of Arkansas.

**Michael T. French (2019)**

Adjunct Professor

BA, James Madison University; MA, PhD, Boston College.

**Jason Goddard (2008)**

Adjunct Professor of the Practice

BS, MBA, UNC-Greensboro.

**Benjamin C. Grannan (2019)**

Adjunct Assistant Professor

BS, Lynchburg College; MS, PhD, Virginia Commonwealth University.

**Haresh Gurnani (2015)**

Benson-Pruitt Professor of Business

BE, Indian Institute of Technology, New Delhi; MS, PhD, Carnegie Mellon.

**Sean T. Hannah (2012)**

J. Tylee Wilson Chair in Business Ethics and Professor

BA, California State University; MBA, MA Syracuse University; MA, Marine Corps University; PhD, Nebraska.

**Frederick H. deB. Harris (1990)**

Dean's Fellow in Investments and Professor

BA, Dartmouth College; PhD, University of Virginia.

**J. Kline Harrison (1990)**

Associate Provost for Global Affairs, Kemper Professor of Business

BS, University of Virginia; PhD, University of Maryland.

**Zachary Hartsell (20202)**

Adjunct Professor of the Practice

BS, Touro College; MPAS, University of Nebraska; AT Still School of Health Management.

**Kenneth C. Herbst (2007)**

Sisel Fellow and Associate Professor

BA, Wake Forest University; MA, PhD, UNC-Chapel Hill.

**Philip Howard (2016)**

Visiting Instructor

BS, MS, PhD, UNC-Chapel Hill.

**Jennifer Hudson (2006)**

Visiting Lecturer

BS, Wake Forest University.

**Sobia S. Hussanini (2020)**

Adjunct Professor of the Practice

BA, Duke University; MHA, Saint Louis University.

**Charalambos L. Iacovou (2001)**

Kirby Chair in Business Excellence & Professor of Management

BS, Vermont; PhD, University of British Columbia.

**Timothy R. Janke (2007)**

Full Professor of the Practice

BS, UNC-Chapel Hill; LLM, JD, Oglethorpe; MBA, Wake Forest University.

**A.J. Jarachovic (2017)**

Visiting Professor of the Practice

BSBA, Ohio State University; MBA, Cleveland State University; MFA, University of North Carolina at Wilmington.

**Mark Johnson (2017)**

Teaching Professor, Assistant Dean, MBA Programs

BS, Florida State University; MSF, Florida International University; MSFE,

PhD, University of New Orleans.

**John P. Karabelas (2019)**

Visiting Assistant Professor of the Practice

BS, Virginia Polytechnic Institute and State University; MS, George

Washington University.

**Benjamin T. King (2007)**

Bern Beatty Faculty Fellow and Full Professor of the Practice

BA, University of Virginia; MBA, Wake Forest University.

**Ged King (2014)**

Adjunct Professor of the Practice

BS, North Carolina State University.

**Susan I. Langlitz (2014)**

Associate Professor of the Practice

BS, Towson University; MA, Emerson College; PhD, University of

Maryland.

**Alireza Lari (2011)**

Associate Teaching Professor

BBA, University of Tehran; MBA, PhD, Texas.

**Jia Li (2019)**

Associate Professor of Marketing

PhD, Washington University.

**Deron S. Mabe (2019)**

Adjunct Faculty

BA, UNC Charlotte; BS, MBA, High Point University.

**Denis Maier (2014)**

Associate Professor of the Practice

MS, Karlsruhe (Germany); PhD, TU Munich (Germany).

**Martin Malloy (2020)**

Professor of the Practice and Faculty Director of the Wall Street Prep Track Program

BS, Manhattan College.

**Bill Marcum (1996)**

Wall Street Partners Fellow & Associate Professor

BA, Furman; MA, UNC-Greensboro; PhD, UNC-Chapel Hill.

**Gordon E. McCray (1994)**

AT&T Fellow and Associate Professor

BS, Wake Forest University; MBA, Stetson; PhD, Florida State.

**Brian D. McKay (2020)**

Adjunct Professor of the Practice

BS, The Ohio State University; JD, Kent College of Law, Illinois Institute of Technology; MBA, Wake Forest University.

**Shannon D. McKeen (2019)**

Adjunct Professor

BA, Williams College; MBA, Dartmouth College.

**Patrick R. McMullen (2003)**

Associate Professor

BS, Louisville; MBA, Butler; PhD, Oregon.

**Peter W. Mitchell (2012)**

Adjunct Professor of the Practice  
BA, UNC-Chapel Hill; MBA, Dartmouth College-Tuck School of Business.

**Norma R. Montague (2010)**

Associate Professor  
BA, MA, NC State; PhD, University of South Florida.

**Seyyed Ali Zeytoon Nejad Moosavian (2019)**

Visiting Assistant Teaching Professor  
PhD, North Carolina State University.

**Sherry E. Moss (2005)**

Professor  
BS, PhD, Florida State.

**James A. Narus (1988)**

Professor  
BA, MBA, Connecticut; PhD, Syracuse University.

**Robert C. Nash (1997)**

Thomas K. Hearn Jr. Professor  
BS, The Citadel; MBA, South Carolina; PhD, Georgia.

**Steve H. Nickles (1995)**

C.C. Hope Chair of Financial Services and Law and Professor  
BA, MPA, JD, Arkansas; LLM, JSD, Columbia.

**James R. Otteson (2013)**

Thomas W. Smith Presidential Chair in Business Ethics  
BA, University of Notre Dame; PhD, University of Chicago.

**Ajay Patel (1993)**

Thomas Goho Chair in Finance and Professor  
BSc, St. Joseph's College; MBA, University of Baltimore; PhD, Georgia.

**Paula E. Payton (2019)**

Adjunct Lecturer  
BA, University of Vermont; MA, University of Chicago; PhD, Grande Ecole de Commerce NEOMA Business School, Mont-Saint-Aignan, France.

**Matthew T. Phillips (2009)**

John Hendley Fellow & Associate Teaching Professor  
BA, JD, Wake Forest University; MDiv, Duke.

**Jonathan P. Pinder (1990)**

Associate Professor of Management  
BS, NC State; PhD, UNC-Chapel Hill.

**Barbara R. Prestwood (2017)**

Adjunct Teaching Professor  
BS, Western Carolina University; MBA, High Point University.

**Lauren C. Reid (2019)**

Assistant Professor of Accounting  
BS, MSA, Wake Forrest University; PhD, University of Tennessee.

**Michelle Roehm (1997)**

Peter C. Brockway Chair of Strategic Management and Professor of Marketing  
BS, MS, Illinois; PhD, Northwestern.

**Carolina A. de Lima Salge (2019)**

Assistant Professor of Management Information Systems  
BA, MA, Clemson University; PhD, University of Georgia.

**Vernon Scoggins (2020)**

Adjunct Instructor

BS, University of the State of New York; BS, Augusta State University; MBA, Wake Forest University.

**Scott M. Shafer (1998)**

Professor  
BS, BBA, PhD, Cincinnati.

**Stephan Shipe (2019)**

Assistant Teaching Professor  
BBA, University of North Florida; PhD, Florida State University.

**Whitney L. Simpson (2017)**

Visiting Associate Professor of the Practice  
AB, Davidson College; Master of Taxation, University of South Carolina.

**Christopher M. Smith (2019)**

Associate Teaching Professor  
BS, United States Military Academy; MS, Missouri University of Science and Technology; MSE, University of Texas at Austin; PhD, University of Virginia.

**Bryan Starrett (2016)**

Adjunct Professor of the Practice  
BS, Wake Forest University; JD, University of Virginia.

**Michelle D. Steward (2004)**

Associate Professor  
BA, MBA West Florida; PhD, Arizona State.

**Deon Strickland (2008)**

Teaching Professor  
AB, Harvard; MBA, Boston College; PhD, UNC-Chapel Hill.

**John Sumanth (2013)**

James Farr Faculty Fellow and Assistant Professor  
BS, Miami; MBA, Florida; PhD, UNC-Chapel Hill.

**Cynthia Tessien (2010)**

Full Professor of the Practice  
BS, Wake Forest University.

**Ron L. Thompson (2000)**

John B. McKinnon Professor of Management  
BMath, University of Waterloo; MBA, McMaster; PhD, University of Western Ontario.

**D. Michael Travis (2020)**

Adjunct Professor of the Practice  
BBA, MBA, University of Texas at Austin.

**J. Bren Varner (2006)**

Senior Lecturer  
BS, Wake Forest University; MBA, University of Virginia.

**Amy Wallis (2012)**

Bern Beatty Fellow and Full Professor of the Practice  
BA, University of Scranton; MS, PhD, Virginia Commonwealth.

**Scott Warfield (2020)**

Adjunct Professor of the Practice  
BA, University of North Carolina at Chapel Hill.

**Julie H. Wayne (2003)**

Associate Professor

BS, Furman; MS, PhD, Georgia (Athens).

**G. Page West III (1995)**

Professor

BA, Hamilton; MBA, Dartmouth; PhD, Colorado (Boulder).

**Jack E. Wilkerson Jr. (1989)**

D. Wayne Calloway Professor of Accountancy

BS, Bob Jones; PhD, Texas.

**James B. Willis (2013)**

Full Professor of the Practice

BS, Master of Taxation, Virginia Commonwealth.

**James W. Woods (2011)**

Associate Professor of the Practice

BFA, UNC-Chapel Hill; MEd, Erikson Institute of Loyola Chicago.

**Ya Wen Yang (2009)**

Associate Professor

BBA, Tunghai University; MBA, Illinois; PhD, Tennessee.

**Brian E. Young (2019)**

Associate Teaching Professor

BS, University of Texas; MBA, Southern Methodist University; PhD, Arizona State University.

# EMERITI

*Dates following names indicate period of service.*

Umit Akinc (1982-2016)

Thomas H. Davis and Professor Emeritus of Business  
BS, Middle East Tech. (Ankara); MBA, Florida State; PhD, UNC-Chapel Hill

John P. Anderson (1984-2010)

Professor Emeritus of Counseling  
BS, MS, PhD, Georgia Tech; MBA, Alabama (Birmingham); MAEd, Wake Forest University

John L. Andronica (1969-2008)

Professor Emeritus of Classical Languages  
BA, Holy Cross; MA, Boston College; PhD, Johns Hopkins

Rajaram B. Baliga (1989-2018)

Professor Emeritus of Business  
BE, University of Madras; PGDBA, Indian Institute of Management; DBA, Kent State

Sarah E. Barbour (1985-2019)

Professor Emeritus of Romance Languages  
BA, Maryville; Diplôme de Langue et de Civilisation Françaises, Paris; MA, PhD, Cornell

James P. Barefield (1963-2004)

Wake Forest Professor Emeritus of History  
BA, MA, Rice; PhD, Johns Hopkins

Richard C. Barnett (1961-1994)

Professor Emeritus of History  
BA, Wake Forest University; MEd, PhD, UNC-Chapel Hill

John V. Baxley (1968-2004)

Wake Forest Professor Emeritus of Mathematics  
BS, MS, Georgia Tech; PhD, University of Wisconsin

Benard L. Beatty (1974-2016)

Associate Professor Emeritus of Business

Robert R. Bliss (2004-2019)

Professor Emeritus of Business  
BS, Purdue; MBA, PhD, University of Chicago

Susan Harden Borwick (1982-2019)

Professor Emerita of Music  
BM, BME, Baylor University; PhD, UNC-Chapel Hill

Holly Brower (2005-2021)

Professor Emerita of School of Business  
BS, Wake Forest University; MS, Iowa State University; PhD, Purdue University

David G. Brown (1990-2003)

Provost Emeritus  
AB, Denison; PhD, Princeton

Richard D. Carmichael (1971-2018)

Professor Emeritus of Mathematics & Statistics  
BS, Wake Forest University; MA, PhD, Duke

Christa G. Carollo (1985-2005)

Senior Lecturer Emerita of German

BA, UNC-Greensboro; MA, Duke

Jonathan H. Christman (1983-2016)

Associate Professor Emeritus of Theatre and Dance  
AB, Franklin and Marshall; MFA, University of Massachusetts (Amherst)

John E. Collins (1970-2007)

Professor Emeritus of Religion  
BS, MS, Tennessee; MDiv, Southeastern Baptist Theo. Seminary; MA, PhD, Princeton

Leon H. Corbett Jr. (1968-2002)

Vice President and Counsel Emeritus  
BA, JD, Wake Forest University

Nancy J. Cotton (1977-2002)

Professor Emerita of English  
BA, Texas; MA, Wisconsin; PhD, Columbia

Mary K. DeShazer (1982, 1987-2014)

Professor Emerita of English and Women's, Gender, and Sexuality Studies  
BA, Western Kentucky; MA, Louisville; PhD, Oregon

Arun P. Dewasthali (1975-2012)

Associate Professor Emeritus of Business  
BS, Bombay; MS, PhD, Delaware

Ronald V. Dimock Jr. (1970-2015)

Thurman D. Kitchin Professor Emeritus of Biology  
BA, New Hampshire; MS, Florida State; PhD, California (Santa Barbara)

Patricia Dixon (1986-2018)

Senior Lecturer Emerita of Music  
BM, NC School of the Arts; MM, UNC-Greensboro

Robert H. Dufort (1961-1999)

Professor Emeritus of Psychology  
BA, PhD, Duke

John S. Dunkelberg (1983-2001)

Kemper Professor Emeritus of Business (School of Business)  
BS, Clemson; MBA, PhD, South Carolina

Yomi Durotoye (1994-2016)

Associate Teaching Professor Emeritus of Politics and International Affairs  
BS, University of Ibadan; MA, Georgia State; PhD, Duke

John R. Earle (1963-2001)

Professor Emeritus of Sociology  
BA, Wake Forest University; MA, PhD, UNC-Chapel Hill

Paul D. Escott (1988-2018)

Reynolds Professor Emeritus of History  
BA, Harvard; MA, PhD, Duke

Andrew V. Ettin (1977-2013)

Professor Emeritus of English  
BA, Rutgers; MA, PhD, Washington (St. Louis)

Herman E. Eure (1974-2013)

Professor Emeritus of Biology  
BS, Maryland State; PhD, Wake Forest University

David K. Evans (1966-1998)

Professor Emeritus of Anthropology



BS, Tulane; PhD, California (Berkeley)

Stephen Ewing (1971-2009)

Professor Emeritus of Business (School of Business)  
BS, Howard Payne; MBA, Baylor; PhD, Texas Tech

Doyle R. Fosso (1964-1995)

Professor Emeritus of English  
AB, PhD, Harvard; MA, Michigan

Donald E. Frey (1972-2011)

Professor Emeritus of Economics  
BA, Wesleyan; MDiv, Yale; PhD, Princeton

Mary Friedman (1987-2021)

Professor Emerita of Spanish and Italian  
BA, Wellesley; MA, PhD, Columbia University

Caroline Sandlin Fullerton (1969-1990)

Lecturer Emerita of SCTA (Theatre Arts)  
BA, Rollins; MFA, Texas Christian

Candelas S. Gala (1978-2018)

Charles E. Taylor Professor Emerita of Romance Languages  
BA, Salamanca (Spain); MA, PhD, University of Pittsburgh

Carole Gibson (1980-2021)

Professor Emerita of Biology  
BS, University of Hartford; PhD, Syracuse University

Kathleen M. Glenn (1974-1998)

Wake Forest Professor Emerita of Romance Languages  
BA, MA, PhD, Stanford

Thomas S. Goho (1977-2007)

Thomas S. Goho Chair Emeritus of Finance (School of Business)  
BS, MBA, Penn State; PhD, UNC-Chapel Hill

Louis Goldstein (1979-2021)

Professor Emeritus of Music  
BM, Oberlin College; MFA, California Institute of the Arts; DMA, Eastman School of Music

William C. Gordon (2002-2012)

Professor Emeritus of Psychology  
BA, MA, Wake Forest University; PhD, Rutgers

David Hagy (1995-2021)

Professor Emeritus of Music  
BM, Indiana University; MM, MMA, DMA, Yale University

Claire Holton Hammond (1978-2013)

Professor Emerita of Economics  
BA, Mary Washington; PhD, Virginia

J. Daniel Hammond (1978-2019)

Professor Emeritus of Economics  
BA, Wake Forest University; PhD, University of Virginia

Phillip J. Hamrick Jr. (1956-1995)

Professor Emeritus of Chemistry  
BS, Morris Harvey; PhD, Duke

Catherine T. Harris (1980-2019)

Professor Emerita of Sociology

BA, Lenoir-Rhyne University; MA, Duke University; PhD, University of Georgia

Elmer K. Hayashi (1973-2004)

Professor Emeritus of Mathematics  
BA, California (Davis); MS, San Diego State; PhD, Illinois

Roger A. Hegstrom (1969-2001)

Wake Forest Professor Emeritus of Chemistry  
BA, St. Olaf; AM, PhD, Harvard

Donna A. Henderson (1996-2019)

Professor Emerita of Sociology  
BA, Meredith University; MAT, James Madison University; PhD, University of Tennessee

Marcus B. Hester (1963-2006)

Professor Emeritus of Philosophy  
BA, Wake Forest University; PhD, Vanderbilt

E. Clayton Hipp Jr. (1991-2016)

Senior Lecturer Emeritus of Business  
BA, Wofford; MBA, JD, South Carolina

Alix Hitchcock (1989-2013)

Instructor Emerita of Art  
BFA, UNC-Greensboro; MA, New York

George M. Holzwarth (1983-2004)

Professor Emeritus of Physics  
BA, Wesleyan; MS, PhD, Harvard

Fred L. Horton Jr. (1970-2011)

Albritton Professor Emeritus of the Bible (Department of Religion)  
BA, UNC-Chapel Hill; BD, Union Theological Seminary; PhD, Duke

Fredric T. Howard (1966-2009)

Professor Emeritus of Mathematics  
BA, MA, Vanderbilt; PhD, Duke

Patricia Adams Johansson (1969-1998)

Associate Dean of the College Emerita and Lecturer Emerita of English  
BA, Winston-Salem State; MA, Wake Forest University

David J. John (1982-2021)

Professor Emeritus of Computer Science  
BS, Emory and Henry College; MS, PhD, Emory University

Judy Kem (1987-2020)

Professor Emerita of French Studies  
BA, Western Kentucky University; MA, University of Louisville; PhD, University of North Carolina Chapel Hill

Charles H. Kennedy (1985-2017)

Associate Professor Emeritus of Business  
BA, Eckerd; AM, MPP, PhD, Duke

Ralph C. Kennedy III (1976-2021)

Professor Emeritus of Philosophy  
BA, PhD, University of California (Berkeley)

William C. Kerr (1970-2008)

Professor Emeritus of Physics  
BS, Wooster; PhD, Cornell

Lee G. Knight (1979-2018)

Professor Emeritus of Business  
BS, Western Kentucky; MA, PhD, University of Alabama

Dilip K. Kondepudi (1987-2019)  
Professor Emeritus of Chemistry  
BS, Madras (India); MS, Indian Institute of Technology (Bombay); PhD, University of Texas at Austin

Kathleen A. Kron (1991-2021)  
Professor Emeritus of Biology  
BS, MS, Michigan State University; PhD, University of Florida

Raymond E. Kuhn (1968-2018)  
William L. Poteat Professor Emeritus of Biology  
BS, Carson-Newman; PhD, University of Tennessee

James Kuzmanovich (1972-2014)  
Professor Emeritus of Mathematics  
BS, Rose Polytechnic; PhD, Wisconsin

Hugo C. Lane (1973-2013)  
Professor Emeritus of Biology  
Licenciate of the Biological Sciences, Doctorate of the Biological Sciences, Geneva

Michael S. Lawlor (1986-2014)  
Professor Emeritus of Economics  
BA, Texas (Austin); PhD, Iowa State

Candyce C. Leonard (1996-2014)  
Professor Emerita of Communication  
BA, Texas Wesleyan; MA, MEd, Louisville; PhD, Indiana (Bloomington)

David B. Levy (1976-2021)  
Professor Emeritus of Music  
BM, MA, Eastman School of Music; PhD, University of Rochester

Charles M. Lewis (1968-2016)  
A.C. Reid Professor Emeritus of Philosophy  
BA, Wake Forest University; ThM, Harvard; PhD, Vanderbilt

Stanley W. Mandel (1998-2019)  
Professor Emeritus of Business  
BS, Tulane; MBA, Kellogg GSM; PhD, Texas Tech

Milorad R. Margitić (1978-2005)  
Professor Emeritus of Romance Languages  
MA, Leiden (Netherlands); PhD, Wayne State

Dale R. Martin (1982-2018)  
Professor Emeritus of Business  
BS, MS, Illinois State; DBA, Kentucky

George "Rick" Matthews (1979-2020)  
Professor Emeritus of Physics  
BS, PhD, University of North Carolina Chapel Hill

Jill Jordan McMillan (1983-2006)  
Professor Emerita of Communication  
BA, Baylor; MA, Arkansas; PhD, Texas

Gordon A. Melson (1991-2006)  
Dean of the Graduate School of Arts & Sciences Emeritus  
BS, PhD, Sheffield (England) and Professor Emeritus of Chemistry

Jack R. Meredith (1995-2017)

Professor Emeritus of Business  
BS, Oregon State; MBA, PhD, California (Berkeley)

J. Kendall Middaugh II (1987)  
Associate Professor of Management  
BBA, MBA George Washington; PhD, Ohio State

Joseph O. Milner (1969-2014)  
Professor Emeritus of Education  
BA, Davidson; MA, PhD, UNC-Chapel Hill

John C. Moorhouse (1969-2006)  
Archie Carroll Professor Emeritus of Ethical Leadership  
BA, Wabash; PhD, Northwestern (Department of Economics)

Patrick E. Moran (1989-2010)  
Associate Professor Emeritus of Chinese (East Asian Languages and Cultures)  
BA, MA, Stanford; MA, National Taiwan University; PhD, Pennsylvania

Thomas E. Mullen (1957-2000)  
Dean of the College Emeritus and Professor Emeritus of History  
BA, Rollins; MA, PhD, Emory University

Jim Narus (1988-2021)  
Professor Emeritus of School of Business  
MA, MBA, Connecticut University; PhD, Syracuse University

Joel Newman (1976-2017)  
Professor Emeritus of Law

Debbie W. Newsome (1999-2021)  
Professor Emerita of Counseling  
BA, Oklahoma Baptist University; MEd, Wake Forest University; PhD, University North Carolina - Greensboro

Ronald E. Noftle (1967-2014)  
Professor Emeritus of Chemistry  
BS, New Hampshire; PhD, Washington

James L. Norris (1989-2021)  
Professor Emeritus of Mathematics and Statistics  
BS, MS (Science), MS (Statistics), North Carolina State University; PhD, Florida State University

Gillian Rose Overing (1979-2019)  
Professor Emerita of English  
BA, Lancaster (England); MA, PhD, State University of New York (Buffalo)

Perry L. Patterson (1986-2013)  
Professor Emeritus of Economics and Lecturer Emeritus of Russian  
BA, Indiana University; MA, PhD, Northwestern

Philip J. Perricone (1967-2003)  
Professor Emeritus of Sociology  
BS, MA, Florida; PhD, Kentucky

Robert J. Plemmons (1990-2013)  
Reynolds Professor Emeritus of Mathematics and Computer Science  
BS, Wake Forest University; PhD, Auburn

James T. Powell (1988-2015)  
Associate Professor Emeritus of Classical Languages  
BA, Emory; MPhil, MA, PhD, Yale

Jenny Puckett (1995-2013)

Lecturer Emerita in Romance Languages  
BA, Wake Forest University; MA, Middlebury

Teresa Radomski (1977-2021)  
Professor Emerita of Music  
BM, Eastman School of Music; MM, University of Colorado

Mary Lynn B. Redmond (1989-2018)  
Professor Emerita of Education  
BA, EdD, UNC-Greensboro; MEd, UNC-Chapel Hill

Bruce G. Resnick (1995-2018)  
Professor Emeritus of Finance  
BBA, Wisconsin (Oshkosh); MBA, Colorado; DBA, Indiana

Suzanne Reynolds (1981-2020)  
Professor Emerita of School of Law

Paul M. Ribisl (1973-2013)  
Charles E. Taylor Professor Emeritus of Health and Exercise Science  
BS, Pittsburgh; MA, Kent State; PhD, Illinois

Charles L. Richman (1968-2006)  
Professor Emeritus of Psychology  
BA, Virginia; MA, Yeshiva; PhD, Cincinnati

Leonard P. Roberge (1974-2002)  
Professor Emeritus of Education  
BA, New Hampshire; MA, Atlanta; EdD, Maine

Donald P. Robin (1997-2009)  
J. Tylee Wilson Professor Emeritus of Business Ethics (School of Business)  
BS, MBA, PhD, Louisiana State

Luis Roniger (2004-2021)  
Professor Emeritus of Politics and International Affairs  
Licenciado, Universidad Nacional de Buenos Aires; MA, PhD, Hebrew University of Jerusalem

Brooke Saladin (1983-2018)  
Professor Emeritus of Business  
BS, PhD, Ohio State; MBA, Bowling Green State

Wilmer D. Sanders (1954-1957, 1964-1992)  
Professor Emeritus of German  
BA, Muhlenberg; MA, PhD, Indiana

Timothy F. Sellner (1970-2003)  
Professor Emeritus of German  
BA, PhD, Michigan; MA, Wayne State

Cathy Seta (1987-2020)  
Professor Emerita of Psychology  
BA, MA, PhD, University of North Carolina Greensboro

Kurt C. Shaw (1987-2018)  
Associate Professor Emeritus of Russian  
BA, Missouri; MA, PhD, University of Kansas

Howard W. Shields (1958-2001)  
Professor Emeritus of Physics  
BS, UNC-Chapel Hill; MS, Pennsylvania State; PhD, Duke

Robert N. Shorter (1958-1999)  
Professor Emeritus of English

BA, Union; MA, PhD, Duke

Robin Simon (2009-2021)  
Professor Emerita of Sociology

Jeanne M. Simonelli (1999-2013)  
Professor Emerita of Anthropology  
BA, MA, PhD, Oklahoma; MPH, Oklahoma University Health Sciences Center

Michael L. Sinclair (1968-2006)  
Professor Emeritus of History  
BA, Wake Forest University; AM, PhD, Stanford

Earl Smith (1996-2012)  
Rubin Professor Emeritus of American Ethnic Studies and Professor Emeritus of Sociology  
BA, SUNY (Stony Brook); MA, PhD, Connecticut

Margaret Supplee Smith (1979-2011)  
Harold W. Tribble Professor Emerita of Art  
BS, Missouri; MA, Case Western Reserve; PhD, Brown

Cecilia H. Solano (1977-2017)  
Associate Professor Emerita of Psychology  
BA, Harvard; MA, PhD, Johns Hopkins

David H. Stroupe (1990-2016)  
Associate Professor Emeritus of the Practice in English  
BS, Wake Forest University; MA, UNC-Chapel Hill

Thomas C. Taylor (1971-2003)  
Professor Emeritus of Accountancy (School of Business)  
BS, MA, UNC-Chapel Hill; PhD, Louisiana State

Harold C. Tedford (1965-1998)  
Professor Emeritus of Theatre  
BA, Ouachita; MA, Arkansas; PhD, Louisiana State

Clark Thompson (2001-2021)  
Professor Emeritus of Philosophy  
BA, JD, PhD, University of Virginia

Ronald Thompson (2000-2021)  
Professor Emeritus of School of Business  
BMath, University of Waterloo; MBA, McMaster; PhD, University of Western Ontario

Harry B. Titus Jr. (1981-2013)  
Professor Emeritus of Art  
BA, Wisconsin (Milwaukee); MFA, PhD, Princeton

Ralph B. Tower (1980-2014)  
Wayne Calloway Professor Emeritus of Taxation  
BA, PhD, UNC-Chapel Hill; MBA, Cornell

George W. Trautwein (1983-1996)  
Director of Instrumental Ensembles Emeritus (Department of Music)  
BMus, Oberlin; MMus, Cleveland Institute; MusD, Indiana

Robert W. Ulery Jr. (1971-2011)  
Professor Emeritus of Classical Languages  
BA, MA, PhD, Yale

Robert L. Utley Jr. (1978-2013)  
Associate Professor Emeritus of Humanities

BA, Wake Forest University; MA, PhD, Duke

Sarah L. Watts (1987-2011)  
Professor Emerita of History  
BA, Oklahoma College of Liberal Arts; MA, PhD, Oklahoma

David S. Weaver (1977-2002)  
Professor Emeritus of Anthropology  
BA, MA, Arizona; PhD, New Mexico

Peter D. Weigl (1968-2009)  
Professor Emeritus of Biology  
BA, Williams; PhD, Duke

David P. Weinstein (1989-2015)  
Professor Emeritus of Politics and International Affairs  
BA, Colorado College; MA, Connecticut; PhD, Johns Hopkins

Ulrike Weithaus (1991-2021)  
Professor Emerita of Study of Religions  
Colloquium at Kirchliche Hochschule (Berlin, Germany); MA, PhD, Temple University

Byron R. Wells (1981-2016)  
Professor Emeritus of Romance Languages  
BA, MA, Georgia; PhD, Columbia

George Page West (1995-2020)  
Professor Emeritus of School of Business

Larry E. West (1969-2010)  
Professor Emeritus of German  
BA, Berea; PhD, Vanderbilt

M. Stanley Whitley (1990-2013)  
Professor Emeritus of Romance Languages  
BA, Wake Forest University; MA, PhD, Cornell

Alan Williams (1974-2020)  
Professor Emeritus of History  
BA, Stanford University; PhD, Yale University

Richard T. Williams (1985-2017)  
Professor Emeritus of Physics  
BS, Wake Forest University; MA, PhD, Princeton

John G. Williard (1958-1994)  
Vice President and Treasurer Emeritus  
BS, UNC-Chapel Hill

David C. Wilson (1984-85, 1987-2015)  
Associate Professor of the Practice Emeritus of Mathematics  
BS, Wake Forest University; MAT, Emory

Edwin G. Wilson (1951-2002)  
Provost Emeritus and Professor Emeritus of English  
BA, Wake Forest University, AM, PhD, Harvard

Donald H. Wolfe (1968-2000)  
Professor Emeritus of Theatre  
BS, MS, Southern Illinois; PhD, Cornell

J. Ned Woodall (1969-2003)  
Professor Emeritus of Anthropology  
BA, MA, Texas; PhD, Southern Methodist

Raymond L. Wyatt (1956-1992)  
Professor Emeritus of Biology  
BS, Wake Forest University; MA, PhD, UNC-Chapel Hill

# COURSES A-Z

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## A

- Accountancy (ACC)
- African American Studies (AAS)
- African Studies (AFS)
- American Ethnic Studies (AES)
- Anthropology (ANT)
- Arabic (ARB)
- Art (ART)

## B

- Biochemistry & Molecular Biology (BMB)
- Bioethics, Humanities, and Medicine (BHM)
- Biology (BIO)
- Business & Enterprise Mgmt (BEM)
- Business (BUS)

## C

- Chemistry (CHM)
- Chinese (CHI)
- Classics (CLA)
- Communication (COM)
- Computer Science (CSC)
- Counseling (CNS)
- Creative Writing (CRW)

## D

- Dance (DCE)

## E

- E. Asian Languages and Culture (EAL)
- E. Asian Studies (EAS)
- Economics (ECN)
- Education (EDU)
- Engineering (EGR)
- English (ENG)
- Entrepreneurship (ENT)
- Environmental Program (ENV)

## F

- Film Studies (FLM)
- Finance (FIN)
- First Year Experience (FYE)
- First Year Seminar (FYS)
- French (FRH)

## G

- German (GER)
- German Studies (GES)
- Greek (GRK)

## H

- Health and Exercise Science (HES)
- Health Policy & Administration (HPA)
- Hindi-Urdu (HNU)
- History (HST)
- Honors (HON)
- Humanities (HMN)

## I

- Interdisciplinary Studies (IND)
- International Studies (INS)
- Italian (ITA)
- Italian Language and Culture in English (IAS)

## J

- Japanese (JPN)
- Journalism (JOU)

## L

- Latin (LAT)
- Latin American Studies (LAS)
- Library Science (LIB)
- Linguistics (LIN)

## M

- Mathematics (MST)
- Middle East & South Asia Studies (MES)
- Military Science (MIL)
- Music (MUS)

## N

- Near Eastern Lang. & Lit. (NLL)
- Neuroscience (NEU)

## P

- Philosophy (PHI)
- Physics (PHY)
- Politics & International Affairs (POL)
- Portuguese (PTG)
- Psychology (PSY)

## R

- Religion (REL)
- Russian & E. European Studies (REE)
- Russian (RUS)

## S

- Sanskrit (SKT)
- Self Instructional Language (SIL)
- Sociology (SOC)
- Spanish (SPA)



- Sports Medicine (SPM)
- Statistics (STA)

## T

- Theatre (THE)

## W

- Washington DC Internship (WDC)
- Women's and Gender Studies (WGS)
- Writing Courses (WRI)

# Accountancy (ACC)

## ACC 110. Introduction to Financial and Managerial Accounting. (3 h)

Basic Accounting concepts and procedures used in the preparation of financial reports issued to stockholders, creditors and managers of business enterprises. Open only to Juniors and Seniors not majoring in the Schools of Business. Cannot be substituted for Accounting 111.

## ACC 111. Introductory Financial Accounting. (3 h)

Introduction to financial accounting and reporting, including the role of financial information in business decisions, the basic financial statements, and the processes used to prepare these financial statements. Students are introduced to the accounting and reporting issues associated with an organization's financing, investing, and operating activities. Sophomore standing. P-Sophomore standing; minimum cumulative GPA 2.85; or POI.

## ACC 211. Intermediate Accounting I. (4 h)

Study of the conceptual framework underlying financial accounting in the United States as well as the financial accounting standards setting process and the basic corporate financial statements. Financial accounting and reporting issues associated with receivables, inventories, property, plant, and equipment, and intangible assets are also examined. P-minimum of C in ACC 111.

## ACC 212. Intermediate Accounting II. (4 h)

Examination of financial accounting and reporting issues associated with current liabilities and contingencies, long-term liabilities, stockholders' equity, dilutive securities and earnings per share, income taxes, pensions, and postretirement benefits, leases, financial statement errors, and the statement of cash flows. P-Minimum of C in ACC 211.

## ACC 221. Introductory Management Accounting. (3 h)

Study of the concepts fundamental to management accounting which aid in decision-making, performance evaluation, and planning and control. The topics covered include product costing systems, budgeting, differential and breakeven analysis, responsibility accounting, cost allocation, and management accounting reports. P-Minimum of C in ACC 111.

## ACC 237. Taxes and Their Role in Business and Personal Decisions. (3 h)

Review of legal and accounting concepts associated with the federal taxation of personal income. Topics examined include the regular and alternative minimum tax models as well as gross income, capital gains, property transactions, deductions, and credits. P or C-Accounting 211 or POI.

## ACC 311. Advanced Financial Accounting. (3 h)

A comprehensive study of business combinations, the equity method of accounting for investments in common stock, and consolidated financial statement preparation. Also covered are accounting theory as applied to special problems such as accounting for partnerships and international accounting issues including foreign currency financial statement translation. In addition, government and nonprofit accounting are introduced in this course. P-ACC 211 and 212 with a grade of C or better.

## ACC 321. Accounting for Managerial Decision Making. (3 h)

Provides students with advanced exposure to topics in cost structure management, planning, control, and decision making. Primary emphasis is placed on developing students' appreciation for how financial modeling and strategic analysis work together in unified decision making. To develop students as financial leaders, the foundation of the course will be the Information Value Chain promulgated by accounting academic researchers (e.g. Blocher 2009) and accounting practitioner organizations (Institute of Management Accountants). P-ACC 221 with a grade of C or better.

## ACC 351. Accounting Information Systems. (3 h)

Study of the design and operation of accounting systems including the revenue, expenditure, and administrative transaction cycles. Emphasis is on the necessary controls for reliable data. P-BEM 251, and a minimum of C in ACC 212; or POI.

## ACC 352. Introduction to Auditing. (3 h)

Examination of basic auditing concepts and practices, and the auditor's professional responsibilities. Emphasis is on auditing standards and the auditing procedures commonly used in public accounting. P-minimum of C in ACC 212; C-ACC 351; or POI.

## ACC 378. Individualized Reading and Research. (1-3 h)

Directed study in specialized areas of accountancy. P-POI.

## ACC 390. Professional and Ethical Responsibilities of Accountants. (1.5 h)

This course begins the process of moving students along a continuum from student to emerging accounting professional. Students develop an understanding of the accounting profession's broad societal purposes, as well as its ethical and professional standards and practices, along with an understanding of their various responsibilities as professional accountants - to the profession, to their clients, and to the public at large. Students reflect on the meaning and demands of professional accounting practice so as to develop an emerging professional identity consistent with the profession's broad purposes and ethical standards and practices. P-Senior standing or POI.

## ACC 391. Professional Accounting Internship. (3 h)

Professional accounting field work, under the direction of a faculty member. Students gain relevant practical experience which builds on prior coursework and provides an experiential knowledge base for coursework. Pass/Fail. P-ACC 390. C-ACC 392.

## ACC 392. Professional and Ethical Responsibilities of Accountants - Internship Practicum. (1.5 h)

Students apply, reinforce, and extend the themes and topics of ACC 390 in the context of a professional accounting internship. P-ACC 390.

## ACC 393. Professional and Ethical Responsibilities of Accountants - Case Study Practicum. (1.5 h)

Students use a combination of historical and fictional case studies to apply, reinforce, and extend the themes and topics of ACC 390. P-ACC 390 (Not open to students who have taken ACC 392)

## African American Studies (AAS)

### AAS 100. Introduction to African American Studies. (3 h)

Introduces the history and evolution of the discipline, key scholars, ideas, and themes, and central disciplinary questions in African American Studies.

### AAS 110. Introduction to Africana Philosophy. (3 h)

Introduces the history and development of Africana philosophy and explores significant issues, themes, and texts in the field.

### AAS 200. Theories and Methods in African American Studies. (3 h)

Examines the major analytical, conceptual, methodological, and theoretical frameworks in African American Studies and interdisciplinary approaches that inform the discipline.

### AAS 205. Black Cultural Studies. (3 h)

Interdisciplinary exploration of the conceptual, material, and theoretical dimensions of Black Cultural Studies and the key debates informing the politics and cultures of representation in African American and African diasporic cultural productions.

### AAS 207. Black Popular Culture. (3 h)

Explores the various forms of Black popular culture and the cultural and intellectual politics that inform its reception and representation by scholars and the general public.

### AAS 210. African American Intellectual Traditions. (3 h)

Explores significant figures and schools of thought in African American intellectual history.

### AAS 220. African American Cultural Criticism. (3 h)

Examines the cultural criticism of significant African American cultural critics and development and evolution of distinctive forms of African American cultural criticism.

### AAS 300. Black Feminist Theory. (3 h)

Examines the history and evolution of Black Feminist theory with a focus on key questions, issues and thinkers that inform Black Feminist thought.

### AAS 310. Organic Leadership: Lessons from the Black Freedom Struggle. (3 h)

Examines the ideas, models, and philosophies of leadership of select artists, activists, and intellectuals from the modern black freedom movement.

### AAS 315. African American Social and Political Thought. (3 h)

Examines significant figures, themes, and traditions in African American social and political thought.

### AAS 320. Philosophy and Race. (3 h)

Examines how and in what ways race is interrogated by African American philosophers and philosophers of African descent with critical attention to issues of identity, ethics, and politics.

### AAS 322. Critical Theories of Race. (3 h)

Explores conceptions of race informed by Critical Race Theory and other forms of critical thought.

### AAS 324. Race and the Modern World. (3 h)

Interdisciplinary examination of the intersections of ideas, institutions, ideologies, and practices that have defined race and processes of racialization in the modern era.

### AAS 330. Politics of Black Religion. (3 h)

Examines the complex intersection of politics and Black religion with particular consideration to how political ideas, theories, and movements are influenced by the knowledges, rituals, traditions, and practices of Black religion.

### AAS 340. Ethics of Black Power. (3 h)

Examines the ethical dimension of Black Power and the cultural, ideological, and political movements influenced by theories and politics of Black Power.

### AAS 350. Politics of Black Liberation. (3 h)

Explores the histories, concepts, and ideas of Black political movements that make explicit claim to enacting liberatory politics.

### AAS 355. African Political Philosophy. (3 h)

Critical examination of the political philosophy of significant Africana thinkers and traditions.

### AAS 370. Special Topics in Arts, Aesthetics, and Expressive Cultures in African American Studies. (1-3 h)

African American Studies topics of special interest. May be repeated for credit if topic varies.

### AAS 380. Special Topics in Ethics, Politics, and Society in African American Studies. (1-3 h)

African American Studies topics of special interest. May be repeated for credit if topic varies.

### AAS 387. Black Radical Tradition. (3 h)

Examines the key concepts, texts, theories, and thinkers in the Black Radical Tradition.

### AAS 390. Special Topics in History, Culture, and Theory in African American Studies. (1-3 h)

African American Studies topics of special interest. May be repeated for credit if topic varies.

### AAS 391. Themes in Africana Philosophy. (3 h)

Select topics and themes in Africana philosophy.

### AAS 392. Seminar in African American Studies. (3 h)

Offered by members of the African American Studies faculty on a topic of their choice. May be repeated for credit if topic varies.

### AAS 396. Independent Study in African American Studies. (1-3 h)

Independent research projects in African American Studies which extend study in a particular course or explores new areas of interest. A maximum of 3 hours may apply to the African American Studies major or minor. By prearrangement.

### AAS 397. Directed Reading in African American Studies. (1-3 h)

Reading in an area of African American Studies not otherwise available. A maximum of 3 hours may apply to the African American Studies major or minor. By prearrangement.

### AAS 399. African American Studies Atelier. (3 h)

Capstone seminar for African American Studies majors to develop original research projects engaging key theoretical, methodological, and conceptual issues in the discipline.

## African Studies (AFS)

### AFS 220. Special Topics in African Studies. (1-3 h)

Subject varies with instructor. May be repeated for credit if topic varies.

### AFS 250. Seminar in African Studies. (3 h)

Interdisciplinary investigation of important issues related to Africa's past and present.

## American Ethnic Studies (AES)

### AES 232. The American Jewish Experience. (3 h)

An interdisciplinary course exploring Jewish immigration to America with a primary focus on the nineteenth and twentieth centuries.

**AES 234. Ethnicity and Immigration. (3 h)**

An exploration of the socio-historical dynamics of the peopling of America in the nineteenth and twentieth centuries. (CD)

**AES 236. Multi-Ethnic Dance. (3 h)**

Exploration of the cultural importance of dance in major ethnic groups in American society. Also listed as DCE 236. (CD)

**AES 251. Race and Ethnic Diversity in America. (3 h)**

Different race and ethnic experiences are examined through an institutional approach that examines religion, work, schooling, marriage patterns, and culture from cross-cultural perspective. Grand theoretical schemes like the "melting pot" are critiqued for their relevance in an age of new cultural expectations among the many American ethnic groups. Also listed as WGS 251. (CD)

**AES 265. Culture and Religion in Contemporary Native America. (3 h)**

Interdisciplinary survey of American-Indian culture, including the arts and literature, religions, and historical changes. Special emphasis is placed on the impact of the Conquista, encounters with Northern Atlantic societies, and contemporary developments. Also listed as REL 265 and HMN 285. (CD)

**AES 300. American Ethnic Literature and Film. (3 h)**

Through a discussion of cinematic and literary works from the Caribbean, North Africa, and sub-Saharan Africa, this course explores how artists have created a space in which to find their voice and cultural identity within both a global and personal history.

**AES 310. Race, Class, and Gender in a Color-blind Society. (3 h)**

Examines issues surrounding race, class, and gender in the United States. Topics include income and wealth, theories of discrimination, public education, gender bias, and patterns of occupational and industrial segregation. Also listed as EDU 310.

**AES 341. Africans in the Atlantic World, 1750-1815. (3 h)**

Explores Africans' experience in the Atlantic world (Africa, Europe and the Americas) during the era of the slave trade by examining their encounters with Indians and Europeans and their adjustment to slave traders in West Africa. Also listed as HST 341. (CD)

**AES 357. Studies in Chicano/a Literature. (3 h)**

Writings by Americans of Mexican descent in relation to politics and history. Readings in literature, literary criticism, and socio-cultural analysis. Also listed as ENG 357. (CD)

**AES 358. The Italian Experience in America. (3 h)**

Explores issues of ethnicity and identity in the Italian-American experience. A central goal of this course is to understand the inter-relationship of social, economic and political factors that impinge on this large European ethnic group.

**AES 370. Immigration Practices in the U.S. and the European Union. (3 h)**

Explores the history and theory of immigration practices in the U.S. (after 1800) and the European Union (after its establishment in 1957) and compares the discourses and public policies in the two regions.

**AES 387. African-American Fiction. (3 h)**

Selected topics in the development of fiction by American writers of African descent. Also listed as ENG 387. (CD)

**AES 389. African-American Poetry. (3 h)**

Readings of works by American poets of African descent in theoretical, critical, and historical contexts. Also listed as ENG 389. (CD)

**AES 390. Special Topics. (1.5, 3 h)**

American ethnic studies topics of special interest. May be repeated for credit if topic varies.

**AES 396. Independent Study. (1-3 h)**

Independent projects in American Ethnic Studies which either continue study begun in regular courses or develop new areas of interest. A maximum of 3 hours may apply to the minor. By prearrangement.

## Anthropology (ANT)

**ANT 111. People and Cultures of the World. (3 h)**

A representative ethnographic survey of worldwide cultures and major concepts in cultural anthropology taught through case studies. Credit toward the major or minor not given for both ANT 111 and ANT 114. (CD, D)

**ANT 111G. People and Cultures of World. (3 h)**

A representative ethnographic survey of worldwide cultures and major concepts in cultural anthropology taught through case studies. Same as ANT 111, and also meets the geography requirement for teaching licensure candidates. (CD, D)

**ANT 112. Introduction to Archaeology. (3 h)**

Overview of the field of archaeology and its place within anthropology. Includes coverage of methods, theory, history of the field, and discussions of major developments in world prehistory (CD, D)

**ANT 113. Introduction to Biological Anthropology. (3 h)**

Introduction to biological anthropology, including human biology, human variation, human genetics, human evolution, and primatology. (D)

**ANT 114. Introduction to Cultural Anthropology. (3 h)**

Investigates and interprets the cultural diversity of the world's people, through an understanding of economic, social, and political systems, law, and religion; language and culture; gender, race, ethnicity, kinship and the family; and globalization and culture change. Credit toward the major or minor not given for both ANT 111 and ANT 114. (CD, D)

**ANT 150. Introduction to Linguistics. (3 h)**

The social phenomenon of language: how it originated and developed, how it is learned and used, its relationship to other kinds of behavior; types of language (oral, written, signed) and language families; analysis of linguistic data; social issues of language use. Also listed as LIN 150. (CD, D)

**ANT 190. Introduction to Museum Studies. (3 h)**

Survey of museum history and theory. Covers object collections, curation, exhibit design, and cultural issues in museums. Does not count toward the major or minor in anthropology. (D)

**ANT 305. Museum Anthropology. (3 h)**

Examines the historical, social, and ideological forces shaping the development of museums including the formation of anthropological collections and representation, and the intellectual and social challenges facing museums today. P - ANT 111 or 112 or 114, or POI.

**ANT 307. Collections Management Practicum. (1.5 h)**

The principles of collections management including artifact registration, cataloging, storage, and handling; conservation issues and practices; disaster planning and preparedness; and ethical issues will be covered through lectures, readings, workshops, and hands-on use of the Museum's collections.

**ANT 308. Archaeological Theory and Practice. (3 h)**

Examination of contemporary archaeological topics through participation in the formulation and implementation of an archaeological research design. Building knowledge relevant to contemporary society through understanding the interdependent nature of archaeological theory and method.

**ANT 315. Artifact Analysis and Laboratory Methods in Archaeology. (4 h)**

An introduction to methods for determining the composition, age, manufacture, and use of different prehistoric and historic artifact types. Techniques for reconstruction of past natural environments from geological or ecofact samples. Exploration of date display tools including computer-based illustration, and archeological photography. P-ANT 111 or 112 or 114, or POI.

**ANT 318. Prehistory and Archaeology of Europe. (3 h)**

Problem-based survey of the archaeological record of Europe. Complex interrelationships of material culture, economy, ideology, and social life from earliest peopling to the late Iron Age. Offered only in WFU Study Abroad programs.

**ANT 325. Roots of Racism: Race and Ethnic Diversity in the U.S. (3 h)**

Examines biological myths of race and race as a social construction; historical, economic, and political roots of inequalities; institutions and ideologies that buttress and challenge power relations; and implications of anthropological teaching and research for understanding social class and race discrimination in the U.S. (CD)

**ANT 327. Global Justice and Human Rights in Latin America. (3 h)**

Examines anthropological understandings of human rights, with emphasis on activism and rights-in-practice in Latin America. Explores how human rights are understood, mobilized, and reinterpreted in specific contexts. Investigates how anthropologists negotiate tensions between culture and rights, universalism and relativism, and advocacy and neutrality. (CD)

**ANT 329. Feminist Anthropology. (3 h)**

Examines cultural constructions of gender from a cross-cultural perspective and the relationship between feminism and anthropology through time. Emphasizes how varied forms of feminisms are constituted within diverse social, cultural, and economic systems. Students consider how feminist anthropologists have negotiated positions at the intersection of cultural and human rights. Also listed as WGS 329.

**ANT 332. Anthropology of Gender. (3 h)**

Focuses on the difference between sex, a biological category, and gender, its cultural counterpart. An anthropological perspective is used to understand both the human life cycle and the status of contemporary women and men worldwide. In section one, topics include evolution and biological development, sexuality and reproduction, parenting, and life cycle changes. The second section takes students to diverse locations, including Africa, South Dakota, China, India, and the Amazon for a cross-cultural comparison examining roles, responsibilities, and expectations, and how these interact with related issues of class and race. (CD)

**ANT 333. Language and Gender. (3 h)**

Uses an anthropological perspective to examine relationships among language structure, language use, persons, and social categories. Also listed as LIN 333.

**ANT 334. People and Cultures of South Asia. (3 h)**

Survey of the people and cultures of the Indian subcontinent in the countries of Afghanistan, Bangladesh, Bhutan, India, Nepal, Pakistan, and Sri Lanka. The course reviews major topics of interest to anthropologists, including prehistory, history and politics, religion, social organization, caste, gender, development, and population. (CD)

**ANT 335. Anthropology of Space and Place in the U.S. (3, 4 h)**

Course examines the spatial dimensions of culture by focusing on housing disparities in the U.S. Particular attention is paid to the cultural, gendered, economic, political, and regional contexts of housing policies and the impact policies have on children, families and communities. Course includes an optional Service-Learning community asset mapping assignment of a local Winston-Salem neighborhood.

**ANT 336. Myth, Ritual and Symbolism. (3 h)**

Explores how people envision and manipulate the supernatural in cross-cultural perspective. Emphasizes dynamic aspects of religious beliefs and practices. Also listed as REL 304. P-ANT 111 or 114 or POI. (CD)

**ANT 337. Economic Anthropology. (3 h)**

Examines the relationship between culture and the economy and its implications for applied anthropology. The variable nature and meaning of economic behavior will be examined in societies ranging from non-industrial to post-industrial. Discusses the impact of economic development programs, foreign aid and investment, technology transfer, and a variety of other economic aid programs. P-ANT 111 or 112 or 113 or 114, or POI.

**ANT 339. Culture and Nature: Introduction to Environmental Anthropology. (3 h)**

Exploration of humanity's "place" in the cosmos, focusing on different worldviews of nature and culture. Case studies from anthropology, archeology, and environmental science examine conceptions of technology, resources, environment, and ownership in the context of environmental change, "natural" disasters, and resource scarcity. (CD)

**ANT 340. Anthropological Theory. (4 h)**

Critical review of the major anthropological theories of humans and society. The relevance and significance of these theories to contemporary anthropology are discussed. P-ANT 112 and 113 and 114, or POI.

**ANT 342. Applied Anthropology. (3 h)**

Explores the application of anthropological concepts and methods in the understanding of contemporary problems stemming from cultural diversity, including competing social and economic development models and ideologies of terror. Emphasis is on conflict and change in developing areas but also considers the urban experiences. (CD)

**ANT 347. Warfare and Violent Conflict. (3 h)**

Seminar focusing on the causes and nature of warfare and violent group interaction across cultures and through time. Compares case studies from around the globe and of varying sociopolitical organization, past and present. Includes explorations of primate behavior, forms of warfare, and competing theoretical explanations for its existence and for particular occurrences.

**ANT 350. Language, Indigeneity and Globalization. (3 h)**

Taking a global case-study approach, this seminar explores the role language plays in contemporary identity formation and expression, from indigenous to transnational contexts. Addresses relationships among language and colonialism, postcolonialism, nationalism, cultural revitalization, standardization, social and economic inequality, boundary-formation, and processes of cultural inclusion and exclusion. Also listed as LIN 350. (CD)

**ANT 353. Language in Education. (3 h)**

This seminar explores the role of language in educational contexts; includes the study of bilingual and bicultural education, second language education, cross-cultural education, and communication in the classroom. Service-learning component. Also listed as EDU 353. (CD)



**ANT 354. Field Methods in Linguistic Anthropology. (4 h)**

Trains students in basic skills of collecting and analyzing linguistic data at the levels of phonetics-phonology, grammar, lexico-semantics, discourse, and sociocultural context. Students will learn about the research questions that drive linguistic fieldwork as well as the relevant methods, tools, and practical and ethical concerns. Also listed as LIN 354. P-ANT/LIN 150 or POL.

**ANT 355. Language and Culture. (3 h)**

Covers theoretical and methodological approaches to the study of language and culture, including: semiotics, structuralism, ethnohistory, the ethnography of communication, and sociolinguistics. The topics include: linguistic relativity; grammar and worldview; lexicon and thought; language use and social inequality; language and gender; and other areas. Also listed as LIN 355. (CD)

**ANT 358. Native Peoples of North America. (3 h)**

Ethnology and ethnohistory of the indigenous peoples and cultures of North America since European contact. Explores historic and modern cultures, social and political relationships with Euroamericans, and social justice. (CD)

**ANT 360. Anthropology of Global Health. (3 h)**

A critical introduction to the interdisciplinary field of global health, focusing on contributions from medical anthropology. Compares a diversity of health experiences and evaluates interventions across the globe. Explores how biocultural, political, and economic forces shape patterns of illness and disease with special attention to improving the health of the world's most vulnerable citizens.

**ANT 361. Evolution of Human Behavior. (3 h)**

The application of Darwinian principles to the study of human nature and culture. Considers the existence, origin, and manifestation of human behavioral universals and the theoretical and practical implications of individual variability.

**ANT 362. Medical Anthropology. (3 h)**

Examines Western and non-Western conceptions of health, illness, the roles of patient and healer, and the organization of health in Western and non-Western cultures. Service learning optional. P-ANT 111 or 114, or POL. (CD)

**ANT 363. Primate Behavior and Biology. (3 h)**

Examines the evolution and adaptations of the order Primates. Considers the different ways that ecology and evolution shape social behavior. A special emphasis on the lifeways of monkeys and apes.

**ANT 364. Primate Evolutionary Biology. (3 h)**

Examines the anatomy, evolution, and paleobiology of members of the order Primates. Emphasis is placed on the fossil evidence for primate evolution. Major topics covered include: primate origins, prosimian and anthropoid adaptations, patterns in primate evolution, and the place of humans within the order Primates.

**ANT 366. Human Evolution. (3 h)**

The paleontological evidence for early human evolution, with an emphasis on the first five million years of biocultural evolution.

**ANT 367. Human Biological Diversity. (3 h)**

Seminar focusing on current issues in human biological diversity. Special emphasis on the nature of human variation, and the relationship between human biological diversity and human behavioral diversity. Students learn what is known about how modern human biological variation is patterned and investigate how this variation is interpreted culturally.

**ANT 368. Human Osteology. (4 h)**

Survey and analysis of human skeletal anatomy, emphasizing archeological, anthropological, and forensic applications and practice. Lab-4 hours.

**ANT 370. Origins to Empires: The Archaeology of Africa and Eurasia. (3 h)**

Survey of human prehistory from the earliest hominin social behaviors to the rise of cultural complexity and stratified societies in Africa, Asia, and Europe. Detailed examination of the cultural evolution of state societies within important contexts of past environmental, social, and political change. (CD)

**ANT 372. Environmental Archaeology. (3 h)**

Survey of scientific approaches for reconstructing and interpreting the interactions between past human populations and their environments. Integrates geoarchaeological, archaeobotanical, zooarchaeological, and geochronological methods with anthropological understandings of human construction and experience of environment. Problem-based field activities provide experience applying research techniques and anthropological theory.

**ANT 374. North American Archaeology. (3 h)**

The development of indigenous cultures in North America, from the earliest arrival of people to European contact as outlined by archeological research, with an emphasis on ecology and sociocultural processes. (CD)

**ANT 378. Conservation Archeology. (1.5 h)**

A study of the laws, regulations, policies, programs, and political processes used to conserve prehistoric and historic cultural resources.

**ANT 380. Anthropological Statistics. (3 h)**

Basic statistics, emphasizing application in anthropological research. (QR)

**ANT 381. Field Program in Anthropological Archaeology. (3 h)**

Integrated training in archeological field methods and analytical techniques for researching human prehistory. Students learn archeological survey, mapping, excavation, recording techniques, and artifact and ecofact recovery and analysis. P-ANT 111 or 112 or 113 or 114 or POL. (D)

**ANT 382. Field Program in Anthropological Archaeology. (3 h)**

Integrated training in archeological field methods and analytical techniques for researching human prehistory. Students learn archeological survey, mapping, excavation, recording techniques, and artifact and ecofact recovery and analysis. P-ANT 111 or 112 or 113 or 114 or POL. (D)

**ANT 383. Field program in Cultural Anthropology. (3 h)**

The comparative study of culture and training in ethnographic and cultural analysis carried out in the field. P-ANT 111 or 112 or 113 or 114 or POL. (CD, D)

**ANT 384. Field Program in Cultural Anthropology. (3 h)**

The comparative study of culture and training in ethnographic and cultural analysis carried out in the field. P-ANT 111 or 112 or 113 or 114 or POL. (CD, D)

**ANT 385. Special Problems Seminar. (3 h)**

Intensive investigation of current scientific research within the discipline. The course concentrates on problems of contemporary interest.

**ANT 386. Special Problems Seminar. (3 h)**

Intensive investigation of current scientific research within the discipline. The course concentrates on problems of contemporary interest.



**ANT 387. Ethnographic Research Methods. (4 h)**

Designed to familiarize students with ethnographic research methods and their application. Considers the epistemological, ethical, political, and psychological aspects of research. Field experience and data analysis. P-ANT 111 or 114 or POI.

**ANT 390. Student-Faculty Seminar. (4 h)**

A review of contemporary problems in the fields of archeology, linguistics, and biological and cultural anthropology. Senior standing recommended. P-ANT 112, 113 and 114, or POI.

**ANT 391. Internship in Anthropology. (1-3 h)**

An internship course designed to meet the needs and interests of selected students, to be carried out under the supervision of a departmental faculty member. P-POI.

**ANT 392. Internship in Anthropology. (1-3 h)**

An internship course designed to meet the needs and interests of selected students, to be carried out under the supervision of a departmental faculty member. P-POI.

**ANT 393. Community-Based Research or Service-Learning in Anthropology. (1-3 h)**

Semester experience to be taken in conjunction with another anthropology course. Involves the application of anthropological methods and theory within a community-based research project or service-learning framework.

**ANT 394. Mentored Research in Anthropology. (1-3 h)**

Undergraduate research mentored by faculty and involving intensive investigation of an anthropological problem. P-POI.

**ANT 395. Honors Thesis in Anthropology. (1-3 h)**

Research, analysis, and writing of an Honors Thesis required for graduation with departmental honors to be carried out under the supervision of a departmental faculty member. Senior standing required. P-POI.

**ANT 398. Individual Study. (1-3 h)**

A reading or research course designed to meet the needs and interests of selected students, to be carried out under the supervision of a departmental faculty member. P-POI.

**ANT 399. Individual Study. (1-3 h)**

A reading or research course designed to meet the needs and interests of selected students, to be carried out under the supervision of a departmental faculty member. P-POI.

## Arabic (ARB)

**ARB 111. Elementary Arabic I. (3 h)**

The first semester of a two-semester course designed for students with no or very limited knowledge of the language. Introduction to Arabic sounds and script as well as basic grammar, with oral and written drills and reading of simple texts. Focus is on laying the foundation for reading, writing, listening, and speaking skills in Modern Standard Arabic.

**ARB 112. Elementary Arabic II. (3 h)**

The second semester of a two-semester course designed for students with no or very limited knowledge of the language. Mastery of Arabic sounds and script is assumed. Building of vocabulary and grammar through oral and written drills and reading of simple texts. Focus is on developing proficiency in reading, writing, listening, and speaking skills in Modern Standard Arabic. P-ARB 111.

**ARB 153. Intermediate Arabic I. (4 h)**

Review of grammar and focus on the acquisition of more complex grammatical structures, vocabulary building, and expansion of reading, writing, listening, and speaking skills in Modern Standard Arabic. P-ARB 112.

**ARB 201. Intermediate Arabic II. (3 h)**

Further building of vocabulary and grammar and expansion of reading, writing, listening, and speaking skills in Modern Standard Arabic. P-ARB 153.

**ARB 218. Standard Arabic Conversation I. (3 h)**

A language course based on cultural material intended to develop students' aural skills and oral proficiency in Modern Standard Arabic by increasing vocabulary and reinforcing command of grammar. P-ARB 153.

**ARB 219. Standard Arabic Conversation II. (3 h)**

A continuation of ARB 218. P-ARB 218 or POI.

**ARB 221. Colloquial Arabic Conversation I. (3 h)**

Focus on a particular regional dialect of Arabic (e.g., Egyptian, Levantine, Iraqi, Gulf, or North African) to give students the listening and speaking skills necessary to communicate in everyday language in informal situations. Designed for students with no knowledge of the particular dialect being taught. Course may be repeated for credit for a different Arabic dialect. P-ARB 153 or POI.

**ARB 222. Colloquial Arabic Conversation II. (3 h)**

A continuation of ARB 221. Designed for students with elementary knowledge of the dialect being taught. Course may be repeated for credit for a different Arabic dialect. P-ARB 221 in the same dialect or POI.

**ARB 230. Upper Intermediate Arabic I. (3 h)**

With an emphasis on speaking and writing, this course will develop students' oral and written proficiency on an upper intermediate level of fluency. P-ARB 201.

**ARB 231. Upper Intermediate Arabic II. (3 h)**

A continuation of ARB 230. P-ARB 230.

**ARB 288. Individual Study in Arabic Language or Cultural Studies. (1-3 h)**

Course may be repeated for a total of 6 credit hours. P-POI.

**ARB 301. Advanced Arabic I. (3 h)**

This course will develop students' oral, written, and reading proficiency on an advanced level of fluency. P-ARB 231.

**ARB 302. Advanced Arabic II. (3 h)**

A continuation of ARB 301. P-ARB 301.

**ARB 305. Special Topics in Arabic. (1-3 h)**

Arabic language study with a particular limited focus, e.g., Quranic Arabic, composition, grammar, novels. May be repeated for credit if topic varies. P-ARB 153, 201, or POI depending on the topic.

**ARB 306. Special Topics in Arabic Studies. (3 h)**

Course in English offering in-depth study of particular aspects of Arabic language, literature or culture not included in the regular course offerings. May be repeated for credit when topics vary.

**ARB 324. Introduction to Arabic Literature. (3 h)**

Reading of selected texts in Arabic, ranging from pre-Islamic poetry to the Quran and Prophetic Hadiths to medieval fiction, nonfiction works like biographies and travel literature, and modern short stories, for the purpose of building vocabulary and reading skills, expanding knowledge of grammatical structures and literary genres, and deepening cultural understanding. P-ARB 231 or equivalent.

**ARB 325. Multimedia Arabic. (3 h)**

With a focus on current affairs in the Middle East and the Arabic-speaking world, students will read, listen to, and view authentic materials from various print and electronic media in Arabic. P - ARB 231.

**ARB 350. Classical Arab-Islamic Civilization through Literature. (3 h)**

Examines how Arabs and Muslims in classical and medieval times (600-1400 A.D.) approached the pleasures of worldly life, organized their social domain by ethics/law, constructed their worldview through religion, reacted to nature by science, and attempted to resolve their cultural inconsistencies through theology, philosophy, and mysticism. Also listed as HMN 350. (CD, D)

**ARB 351. Modern Arab World through Literature. (3 h)**

Study of the global significance of the 330 million Arabs as the fourth largest community in the world and Arabic as the fifth most widely spoken language from a historical and thematic perspective (1400 A.D to the present) through literary selections covering the periods of premodernity, Arab renaissance, colonialism, state-building, and globalization. Also listed as ARB 351. (CD, D)

## Art (ART)

**ART 101. Engaging with Art. (1.5 h)**

An opportunity to experience and reflect analytically on the arts in the cultural and intellectual life at Wake Forest, with an emphasis on art exhibitions, lectures, and visiting artist talks. Pass/fail only. May not be repeated.

**ART 103. History of Western Art. (3 h)**

The study of visual arts of Europe and America as they relate to history, religion, and the ideas that have shaped Western culture. Explores masterpieces from the ancient world to the present. (D)

**ART 104. Topics in World Art. (3 h)**

An examination of the visual arts in selected world cultures, with discussions of techniques, styles, broader cultural contexts, and confrontations with varying traditions. Topics may include one or more of the following: the arts of China, Japan, India, Pakistan, Bangladesh, Africa, Islamic cultures, or the indigenous cultures of the Americas. (CD, D)

**ART 105. History of World Architecture. (3 h)**

Examines architectural monuments in selected world cultures with discussions of the planning, siting, design, construction, patronage, historical impact, and broader cultural context. (CD, D)

**ART 110. Topics in Studio Art. (1-3 h)**

Studio art courses as determined by individual instructors. (D only if taken for 3h).

**ART 111. Introduction to Studio Art Fundamentals. (3 h)**

Introduces elements and principles of visual language through hands-on experimentation and critical thinking. (D)

**ART 112. Introduction to Painting. (3 h)**

Introduces the fundamentals of the contemporary practice of oil painting. No prior painting experience required, although prior studio art experience is recommended. (D)

**ART 113. Drawing with Digital Integration. (3 h)**

Introduces principles of art and drawing with integration of digital media. Broadens the scope of studio exploration and critical thinking. Introduces raster and vector graphics software. (D)

**ART 114. Introduction to Film and Video Art. (3 h)**

Introduces historical, aesthetic, and technical principles of contemporary video art and film production. Students will work in groups to produce and experimental film and work individually to create a video that focuses on a personal story. (D)

**ART 115. Introduction to Sculpture. (3 h)**

Introduces basic sculptural styles and multimedia, with emphasis on contemporary concepts. Prior studio experience is recommended. (D)

**ART 117. Introduction to Printmaking. (3 h)**

Introduces one or more of the following major divisions of fine art printmaking: relief (woodcuts and linoleum cuts), intaglio (hand engraving and acid etching methods on copper), lithography from limestone slabs, monotype. (D)

**ART 118. Introduction to Drawing. (3 h)**

Drawing fundamentals emphasizing composition, value, line, and form. (D)

**ART 119. Introduction to Darkroom Photography. (3 h)**

An introduction to designing, processing and critiquing black and white photographs, including 35mm camera techniques and lighting. (D)

**ART 120. Introduction to Digital Photography. (3 h)**

An introduction to designing, processing, and critiquing digital images printed with digital media. Includes camera techniques and lighting. (Digital SLR camera required) (D)

**ART 121. Design Studio: Ethics and Aesthetics. (3 h)**

Addresses diverse social, environmental, and economic problems through the design of specific objects and environments in a collaborative studio. A variety of approaches to design development are covered, along with prototyping, testing, and presentation. (D)

**ART 122. Design Studio: Visualization of Ideas. (3 h)**

Employing a variety of different image generating techniques, students produce visual representations which communicate content based upon specific assigned subjects. Imaging methods may include illustration, typography, photography, video etc. as determined by the instructor. (D)

**ART 198. Study Abroad - Art History. (3 h)**

Courses in the history of art associated with Wake Forest study abroad programs. Elective credit only.

**ART 199. International Studies in Art. (1-4 h)**

Offered by art department faculty in locations outside of the United States, on specific topics in art history or studio art. (D only if taken for 3h or 4h). May be repeated when content differs.

**ART 203. Islamic Art and Architecture. (3 h)**

Subjects of study will be drawn from Spain, North Africa, the eastern Mediterranean, Iran, Central Asia, and India, and will focus on selected periods from 650 to the present. (CD, D)

**ART 204. South Asian Art and Architecture. (3 h)**

Topics range from the material culture of the Indus Valley civilization to the art of contemporary South Asia. (CD, D)

**ART 205. The Architecture of Devotion in South Asia. (3 h)**

Explores architecture associated with the major religions of South Asia, including Buddhism, Hinduism, Islam, Sikhism, and Christianity. Building types include stupas, temples, mosques, shrines, and churches. (CD, D)

**ART 206. Art and Empire: India and Europe, 1500-1900. (3 h)**

Examines artistic exchanges between India and various European powers from c. 1500-1900, beginning with the arrival of the Portuguese in Goa and ending with the British imperial era. Readings include primary sources by European and Indian travelers. (CD, D)

**ART 207. Building Empire: Early Modern Islamic Architecture. (3 h)**

Examines Ottoman, Mughal, and Safavid architecture. Topics include imperial palaces, mosques, and mausoleums; the capital cities of Istanbul, Isfahan, and Delhi; royal court culture; and cultural exchanges with European powers. (CD, D)

**ART 208. Ottoman Art and Architecture. (3 h)**

Examines the visual culture of the Ottoman empire in Turkey, the Balkans, the Eastern Mediterranean, and North Africa. Explores imperial architecture; the history of Istanbul; arts of the royal court; cultural exchanges with other world powers; and Ottoman-inspired visual culture in the modern and contemporary periods. (CD, D)

**ART 209. Special Topics in Art. (1-3 h)**

Variable topics in art. Course can be repeated if topic differs.

**ART 210. Topics in Studio Art. (1-4 h)**

Used to designate studio art courses taken at other institutions. May be repeated.

**ART 211. Intermediate Drawing. (4 h)**

Practice and refinement of drawing skills. Emphasis on concept development. P-ART 118 or POI.

**ART 212. Painting II. (4 h)**

Continuation of ART 112 with concentrated emphasis on conceptual development and technical exploration. P-ART 112 or POI.

**ART 213. Painting III. (4 h)**

An individualized course of study with emphasis on refining the skills and concepts developed in Painting II. P-ART 212 or POI.

**ART 214. Film and Video Art: Site Specific. (4 h)**

Continues the historical, aesthetic, and technical exploration of contemporary film and video art production. Students will produce multi-channel video projects that interact with a physical space. P-ART 114 or POI.

**ART 215. Public Art. (4 h)**

Covers art that is sited in the public realm. Exercises with various sites, materials, and audiences, will culminate in a public project. P-ART 115 or POI.

**ART 216. Sculpture Fabrication. (4 h)**

Fabrication of small-scale sculpture using wood, fabric, and metal. Projects stress craftsmanship and imagination. P-ART 115 or POI.

**ART 217. Intermediate Printmaking. (4 h)**

Explorations of multiple-surface and mixed media printmaking methods involving relief, intaglio, and lithography. Color printing methods are explored in the atelier tradition. Strong emphasis on idea development and image generation. P - ART 117 or POI.

**ART 218. Life Drawing. (4 h)**

Introduction to drawing the human figure. May be repeated once. P-ART 118 or POI.

**ART 219. Darkroom Photography. (4 h)**

Further exploration of traditional black and white photography, with an emphasis on alternative processes, camera techniques, aesthetic and critical issues to increase the understanding of the contemporary photographic image. P-ART 119 or 120 or POI.

**ART 221. Advanced Drawing. (4 h)**

Development of a project or series of art works with attention to methodology and material selection. P-ART 211 or POI.

**ART 222. Advanced Painting. (4 h)**

A course of individual study with faculty guidance focused on developing a body of work for exhibition. Will cover various aspects of professional practice including artist statements and proposals, and portfolio development. P-ART 212 or POI.

**ART 224. Film and Video Art: Cyberspace. (4 h)**

Continues the historical, aesthetic, and technical exploration of contemporary film and video art production. Students will produce multi-channel video projects that interact with cyberspace. P-ART 114 or POI.

**ART 225. Bodies and Objects. (4 h)**

This course will explore the social and psychological ramifications of making objects based on the body through casting and other techniques. P-ART 115 or POI.

**ART 226. Installation Art. (4 h)**

Exercises to develop an understanding of material, process, and audience as they relate to contemporary art. The major projects for the course are an installation and a design project. P-ART 115 or POI.

**ART 227. Advanced Printmaking. (4 h)**

Advanced development of printmaking techniques with deeper focus on the unique quality of specific processes. Selected technical concentrations are invited. P - ART 217 or POI.

**ART 228. Film and Video Art: Theatre Works. (4 h)**

Continues the historical, aesthetic, and technical exploration of contemporary film and video art production. Students will produce single-channel film and video projects for theatre viewing. P-ART 114 or POI.

**ART 229. Digital Photography. (4 h)**

Further exploration in designing, printing, and critiquing digital photographs, includes lighting and digital camera techniques. P-ART 119 or 120 or POI.

**ART 230. Spanish Art and Architecture. (3 h)**

Study of the development and uniqueness of Spanish art and architecture within the framework of Mediterranean and Western art in general. Special focus on works viewed during group tours around Spain. Counts as an elective for the Spanish major. Offered in Salamanca.

**ART 231. American Visual Arts. (3 h)**

American art and culture from the Colonial period to 1900 in terms of changing aesthetic standards, social, and historical developments. Includes fine arts, folk arts, material culture, and mass media. (D)

**ART 233. American Architecture. (3 h)**

Discussion-based course examining American architecture from 1650 to the present. (D)

**ART 234. British Art: Nation, Empire, and Identity. (3 h)**

Examines the central role of art and design in forming national identity in Britain, from Henry VIII to present. Topics include the monarchy and art patronage; the country house; exploration and empire building; political and industrial revolutions; debates about modernity. (D)

**ART 235. Arts of London. (3 h)**

A course focused on the collections, exhibits, and architecture of London. The focus of the course will vary depending upon the specialty of the instructor and specific exhibits on view. Offered in London. (D)

**ART 237. Street Photography. (4 h)**

Using digital cameras, the computer and ink jet printers, students examine the creative, social, and critical aspects of contemporary, fine art, photographic image making. Emphasis will be placed on the genre of Street Photography. P-ART 119 or 120 or POI.

**ART 239. Photography and the Handmade Book. (4 h)**

Explores the editing and sequencing of photographic images to direct the audience through the intimate experience of viewing the handmade book in conjunction with the research and discussion of historical and contemporary bookmaking techniques. P-ART 119 or 120 or POL.

**ART 240. Ancient American Art and Architecture. (3 h)**

Topics dealing with the material remains of the civilizations of North, Central, and South America prior to European contact. (CD, D)

**ART 241. Ancient Art and Architecture. (3 h)**

Surveys the major monuments of the ancient world, from prehistory through Late Antiquity, including Mesopotamian, Egyptian, Greek, and Roman works of art and architecture. (D)

**ART 242. Masters and Masterpieces of Spanish Art. (3 h)**

The history of Spanish art and architecture from the 16th century to the present. Special attention to masterpieces made for the Church and court. Counts as an elective for the Spanish major. Offered in Salamanca. (D)

**ART 244. Greek Art and Architecture. (3 h)**

Explores the art and architecture of ancient Greece, from the prehistoric Aegean through the Hellenistic period. (D)

**ART 245. Art and Architecture of the Roman World. (3 h)**

Examines the art and architecture of the ancient Roman world, including Europe, North Africa, and the Near East, from pre-Roman Italy through the period of Late Antiquity and the rise of Christianity. (D)

**ART 246. Byzantine Art and Architecture. (3 h)**

Explores the art and architecture of the Mediterranean world from the foundation of Constantinople as the New Rome in the 4th century until the fall of the Byzantine Empire to the Ottoman Turks in 1453. (D)

**ART 249. The Arts of Medieval Spain. (3 h)**

Examines the visual culture of medieval Spain from the "barbarian" invasions of Late Antiquity through the Islamic period and the Christian Reconquista. Addresses works from architecture to the minor arts, with particular attention to the interactions among their Christian, Muslim, and Jewish makers. (CD, D)

**ART 250. Medieval Art and Architecture. (3 h)**

Surveys the major monuments of the medieval world, from the 4th to 15th centuries, including Byzantine, Islamic, and European works of art and architecture. (D)

**ART 252. Romanesque Art and Architecture. (3 h)**

Explores art and architecture from the Carolingian Renaissance through the 12th century. (D)

**ART 253. The Gothic Cathedral. (3 h)**

The character and evolution of Gothic cathedrals and the sculpture, stained glass, metalworks, and paintings designed for them. (D)

**ART 254. Luxury Arts in the Middle Ages. (3 h)**

Medieval illuminated manuscripts and precious objects made of gold, silver, ivory, enamel, and other luxury materials are the subjects of this course. (D)

**ART 258. The Printed Image in Early Modern Europe. (3 h)**

Technical and artistic development of prints, and the information revolution they brought about. Prints by Durer, Rembrandt, and others. Students will curate an exhibit from the WFU Print Collection. (D)

**ART 259. The History of Photography. (3 h)**

A historical survey of photography from its moment of invention in the 1830s to the present. Students will consider technological shifts—including digital and social media—and the ways photography crosses cultural borders, whether scientific, legal, documentary, or artistic. (D)

**ART 260. Classics of World Cinema. (3 h)**

Selected masterpieces of world film 1930-1970. Emphasizes developing skills for viewing, discussing, and writing about motion pictures as visual and dramatic art. Students must register for both 260 and 260L. (D)

**ART 260L. Classics of World Cinema Lab. (0 h)**

Group film screening.

**ART 261. Topics in Film History. (3 h)**

Variable topics in film history, including genres, major directors, regional or national cinemas, and historical periods. Course may be repeated if topic is different. (D)

**ART 265. Art and Life in Renaissance Europe. (3 h)**

Cross-cultural developments in the visual arts in Italy, Flanders, and other European centers in the 15th and 16th century. Topics include the status of artists; the use of art in the home, the church, and political arena; the economics of art; and art used to disseminate discoveries about science and world explorations. (D)

**ART 266. Art in the Age of Giotto, Dante, and the Plague. (3 h)**

Developments in Italian painting, sculpture, and architecture in the 14th century with special attention to the new naturalism of Giotto and the effects of the Great Plague of 1348 on the arts. (D)

**ART 267. Early Italian Renaissance Art. (3 h)**

The development of art and architecture in Italy in the 15th century. Special attention is given to the works of Donatello, Botticelli, and Leonardo da Vinci. (D)

**ART 268. 16th Century Art in Italy: Magnificence and Reform. (3 h)**

The development of art and architecture in Rome, Florence, Venice and other cities. Artists studied include Michelangelo, Raphael, and Titian. (D)

**ART 269. Venetian Renaissance Art. (3 h)**

A survey of the art of the Venetian Renaissance, with slide lectures and museum visits. Offered in Venice. (D)

**ART 270. Northern Renaissance Art. (3 h)**

A survey of painting, sculpture, and printmaking in Northern Europe from the mid-14th century through the 16th century. (D)

**ART 272. 17th-Century European Art: Politics, Power and Patronage. (3 h)**

Examines art and architecture in Baroque Europe in its religious and social context. Artists studied include Caravaggio, Rubens, and Rembrandt. (D)

**ART 273. 18th-Century European Art: the Birth of the Modern World. (3 h)**

Examines cultural production in Europe, c.1680-1800 with particular attention to fine art, and situates the art of the period within a cultural and historical framework. (D)

**ART 274. 17th-Century Dutch Painting. (3 h)**

Survey of art, artists and cultural issues of the Dutch Golden Age. Artists include Rembrandt, Hals, Steen and Vermeer. (D)

**ART 276. Austrian Art and Architecture. (3 h)**

Study of the development of Austrian art and architecture and its relationship to European periods and styles. Includes visits to sites and museums. Offered in Vienna.

**ART 281. 19th-Century European Art: From Enlightenment to Abstraction. (3 h)**

Considers artistic production of Europe from the French Revolution to the discussion of abstraction in the early 20th century. Examines the notion of modernity as a cultural ideal and the development of avant-gardes in the interplay between art, society, politics and economics. (D)



**ART 282. Modern Art in Europe and the Americas. (3 h)**

A survey of European, American, and Latin American art from the years 1890 to 1945 that focuses on how art intertwines with the expansion of capitalism, two world wars, and colonialism. (D)

**ART 284. Post War/Cold War: Global Art 1945-1990. (3 h)**

A global history of art during the Cold War and its immediate aftermath, 1945-1990. Discussion will focus on the ways that art both underpinned and resisted the Cold War's rigid political positions. (CD, D)

**ART 285. Global Contemporary Art. (3 h)**

A global perspective on contemporary artistic trends since 1990, including discussions about art criticism, exhibitions and the changing art world. (CD,D)

**ART 286. Topics in Art and Architectural History. (3 h)**

Variable topics in art and architectural history, such as historical periods, geographic regions, or specific media. Course can be repeated if topic differs. (D)

**ART 287H. Honors in Art History. (3 h)****ART 287S. Honors in Studio Art. (4 h)****ART 288. Modern Architecture. (3 h)**

A survey of European and American architecture from 1900 to the present. (D)

**ART 290. Printmaking Workshop. (4 h)**

A workshop course exploring relief, intaglio, lithography, and monotype techniques. Open to students at any skill level. Offered in the summer.

**ART 291H. Individual Study. (1.5, 3 h)**

Independent Study in Art History with faculty guidance. P - POI.

**ART 291S. Individual Study. (1-4 h)**

Independent Study in Studio Art with faculty guidance. P - POI.

**ART 293. Practicum. (3, 4 h)**

Internships in local cultural organizations, to be arranged and approved in advance by the art department. Pass/Fail. P-POI.

**ART 295. Studio Seminar. (1-4 h)**

Offered by members of the faculty or visiting faculty on topics of their choice and related studio activities. P-POI.

**ART 297. Management in the Visual Arts. (3 h)**

Provides art students with the skills, experiences, and frameworks for understanding the role that the visual arts play within the national and international economy. Also listed as ENT 312. P-Junior or senior standing and POI.

**ART 298. Contemporary Art and Criticism. (3 h)**

This discussion-based class examines key works of recent art in a sustained and critical manner. The course is associated with the Student Union Buying trip.

**ART 331. American Foundations. (3 h)**

An interdisciplinary study of American art offered through the Honors program. Also listed as HON 393, 394.

**ART 351. Topics in Gender and Art. (3 h)**

Seminar that addresses a range of topics which intersect gender and artistic practice in various cultures and historical periods. Attention will be paid to the role of art in formulating, subverting, or resiting gender norms.

**ART 386. Advanced Topics in Art and Architectural History. (3 h)**

Variable topics in art and architectural history focusing on specialized themes, periods, regions, or media. Course may be repeated if topic differs.

**ART 394. Issues in Art History. (4 h)**

A discussion-based course focusing on critical theory and methods employed by art historians working today as well as by some of the founding figures of the discipline. Intended for art history majors. P-Non-majors, POI.

**ART 396. Art History Seminar. (4 h)**

Focused readings, discussion, and research on a topic selected by members of the faculty. May be repeated. P-One course in art history or POI.

**ART 397. Advanced Topics In Studio Art. (1-4 h)**

Focus on selected studio projects, critical readings, and discussions on topics selected by members of department faculty. P-POI.

## Biochemistry & Molecular Biology (BMB)

**BMB 301. Special Topics in Biochemistry and Molecular Biology. (3 h)**

Courses in selected special topics in biochemistry and molecular biology. May be repeated for credit if course content differs. P - POI.

**BMB 370. Biochemistry I: Macromolecules and Metabolism. (3 h)**

Introduces principles of biochemistry including structure, function, and biosynthesis of biological molecules, analysis of enzyme function and activity, bioenergetics, and regulation of metabolic pathways. Also listed as BIO 370 and CHM 370. P-any two of the following with associated labs: CHM 122 (or CHM 123), CHM 280 or BIO 214; or any two of the following: CHM 122 (or CHM 123), CHM 280, or BIO 265.

**BMB 371L. Advanced Biochemistry Lab. (1.5 h)**

Emphasizes approaches for isolation and analysis of enzymes. Required for BMB major and the chemistry major with concentration in biochemistry. Recommended for research focused students. Also listed as BIO 371L and CHM 371L. Credit allowed for BIO 370L/CHM 370L, or BMB 371L/BIO 371L/CHM 371L, but not both. P or C-BMB 370/BIO 370/CHM 370.

**BMB 372. Advanced Molecular Biology. (3 h)**

Presents molecular mechanisms by which stored genetic information is expressed including the mechanisms for and regulation of gene expression, protein synthesis, and genome editing. Emphasizes analysis and interpretation of experimental data from the primary literature. Also listed as BIO 372. P-BIO 213 and 214 and BIO 370/BMB 370/CHM 370 or BIO 265 and BIO 370/BMB 370/CHM 370.

**BMB 372L. Advanced Molecular Biology Laboratory. (1.5 h)**

Introduces modern methods of molecular biology to analyze and manipulate expression of genes and function of gene products. Also listed as BIO 372L. P or C-BIO 372/CHM 372 or BMB 373/CHM 373.

**BMB 373. Biochemistry II. (3 h)**

Examines the structure, function, and synthesis of proteins and nucleic acids and includes advanced topics in biochemistry including catalytic mechanisms of enzymes and ribozymes, use of sequence and structure databases, and molecular basis of disease and drug action. Also listed as CHM 373. P-CHM 223 and BIO 370/BMB 370/CHM 370.

**BMB 376. Biophysical Chemistry. (3 h)**

Fundamentals of physical chemistry applied to biological molecules, including thermodynamics, kinetics, quantum mechanics, and spectroscopy. Emphasizes modern experimental approaches used to analyze biological systems. Also listed as CHM 376. P-CHM 280, BIO/BMB/CHM 370, PHY 114. P or C-MST 112.



**BMB 381. Epigenetics. (3 h)**

Studies the molecular mechanisms for inheritance of genome modifications. Uses primary literature to explore the environmental and developmental signals that influence epigenetic controls of gene expression and disease. Also listed as BIO 381. P-BIO 213 and 214 or BIO 265.

**BMB 381L. Epigenetics Laboratory. (1 h)**

Lab provides hands-on experiences with genome editing and molecular genetics to address the function and expression of genes. Also listed as BIO 381L. P or C-BMB 381 or POI.

**BMB 382. Molecular Signaling. (3 h)**

Examines the molecular and biochemical mechanisms by which hormones, neurotransmitters, and other signaling molecules act to change growth, development, and physiological and behavioral responses of organisms with a focus on discussion of primary literature. Also listed as BIO 382. P-BIO 213, 214, and BIO 370/BMB 370/CHM 370 or BIO 265 and BIO 370/BMB 370/CHM 370.

**BMB 383. Genomics. (3 h)**

Examines the architecture, expression, and evolution of genomes. Uses current primary literature to examine the functional and evolutionary dynamics of genomes and the modern analytic techniques used to investigate genome-wide phenomena. Also listed as BIO 383. P-BIO 160 and 160L or CSC 112 or STA 212; and an introductory statistics course such as STA 111, ANT 380, BIO 380, or PSY 311.

**BMB 383L. Genomics Lab. (1 h)**

Introduces analytic methods and interpretation of genome-wide data through practical tutorials. Also listed as BIO 383L. P or C-BMB 383.

**BMB 388. Senior Seminar in Biochemistry and Molecular Biology. (1 h)**

Discussion of contemporary research and introduction to the biochemical and molecular biology literature and research skills and approaches. P or C-BMB 370/BIO 370/CHM 370.

**BMB 390. Biochemistry and Molecular Biology Research Experience. (0-2 h)**

Research experience and written report for off campus or summer research by prearrangement. Pass/Fail option. May be repeated for credit. Summer research for 0 h is pass/fail only.

**BMB 391. Independent Research. (0.5-2 h)**

Working under the guidance of a faculty member or research staff member, students will conduct an independent research project that involves the collection and analysis of data, and that culminates in a written paper or poster to be submitted to the sponsoring faculty or staff member. P-POI.

**BMB 392. Independent Research. (0.5-2 h)**

Working under the guidance of a faculty member or research staff member, students will conduct an independent research project that involves the collection and analysis of data, and that culminates in a written paper or poster to be submitted to the sponsoring faculty or staff member. P-POI.

**BMB 393. Independent Research. (0.5-2 h)**

Working under the guidance of a faculty member or research staff member, students will conduct an independent research project that involves the collection and analysis of data, and that culminates in a written paper or poster to be submitted to the sponsoring faculty or staff member. P-POI.

**BMB 394. Independent Research. (0.5-2 h)**

Working under the guidance of a faculty member or research staff member, students will conduct an independent research project that involves the collection and analysis of data, and that culminates in a written paper or poster to be submitted to the sponsoring faculty or staff member. P-POI.

**BMB 395. Senior Research Project. (2 h)**

Writing of senior research project or honors thesis. P or C-two of the following: BMB 390/BMB 391/BIO 391/CHM 391, BMB 392/BIO 392/CHM 392.

## Bioethics, Humanities, and Medicine (BHM)

**BHM 310. The Art and Science of Health and Healing. (3 h)**

Brings together perspectives from the humanities and the clinic to explore health and disease, suffering and dying, as well as the art and science of healing.

**BHM 385. Special Topics in Bioethics, Humanities, and Medicine. (1-3 h)**

Offered by members of the faculty on specialized topics of their choice. With permission, may be repeated for credit. P-POI.

**BHM 395. Independent Study in Bioethics, Humanities, and Medicine. (1-3 h)**

Reading, research, or internship courses designed to meet the needs and interests of students, to be carried out under the supervision of a faculty member. P-POI.

## Biology (BIO)

**BIO 101. Biology and the Human Condition. (4 h)**

Introduction to basic principles in biology, emphasizing recent advances in biology in the context of their ethical, social, political, and economic considerations. Intended for students with little or no previous experience in biology. BIO 101 is not recommended for those pursuing a career in the health professions or who are planning to continue in biology. Does NOT count toward the biology major or minor. Credit not given for both BIO 101 and BIO 111. C-BIO 101L. (D)

**BIO 101L. Biology and the Human Condition-Lab. (0 h)**

Lab only. No credit.

**BIO 105. Plants and People. (4 h)**

Explores the numerous associations between plants and people, the fundamental importance of plant diversity to humans and their role in the sustainability of the biosphere. This course is intended for students with little or no previous experience in biology and does NOT count toward the major or minor in Biology. (D)

**BIO 111. Biological Principles. (4 h)**

Study of the general principles of living things with focus on the cellular, organismal, and population levels of biological organization, emphasizing the role of heredity and evolution in these systems. Used as equivalent credit for prior college level or transfer course work only. Does NOT count toward the major or minor in biology. Credit not given for both BIO 101 and BIO 111. (D)

**BIO 111L. Biological Principles Lab. (0 h)**

Lab only. No credit.

**BIO 150. Biology I. (3 h)**

Introduction to biological principles and concepts I. Both BIO 150 and 150L must be taken to meet the divisional requirement. (D)

**BIO 150L. Biology I Lab. (1 h)**

P or C-BIO 150.

**BIO 160. Biology II. (3 h)**

Introduction to biological principles and concepts II. P-BIO 150.

**BIO 160L. Biology II Lab. (1 h)**

P-BIO 150 and 150L. P or C-BIO 160.

**BIO 202. Bird Taxonomy (Florida). (2 h)**

Immersion in bird taxonomy and ecology, conducted in southern Florida during six days of Spring Break. Two on-campus meetings are followed by a trip to top birding sites in North America, viewing over 100 species and covering most of the world's orders of birds. Out-of-pocket costs for food, transportation, and lodging expected to be \$200 or less. P-POI required.

**BIO 208. Understanding Climate Change. (1.5 h)**

Introduction to the scientific evidence for climate change.

**BIO 210. Ethical Decision-Making in Biology and Medicine. (3 h)**

Examines contemporary issues in bioethics, including responsible conduct in research, implications of technological advances in biology, environmental issues, and controversies in health care and medical practice.

**BIO 212. Biodiversity. (4 h)**

Investigates the history of life on earth and examines its diversification in an evolutionary and ecological context. Lectures cover the mechanisms of biological diversification and survey life on earth. Labs introduce students to the broad diversity of life through exercises with living organisms. P-BIO 150, 150L, 160, and BIO 160L. (D)

**BIO 213. Genetics and Molecular Biology. (4 h)**

Introduction to the principles and processes of heredity, information flow, and gene function. Topics covered include Mendelian genetics, molecular genetics, and the origin of genetic variation. This course will be offered for the last time Spring 2021. C-BIO 213L.

**BIO 213L. Genetics and Molecular Biology Lab. (0 h)**

Lab only. No credit.

**BIO 214. Cellular Biology. (4 h)**

Introduction to the principles and processes of cellular biology and their impact on organismal function. Topics include molecular organization of cellular structures, regulations of cellular functions, bioenergetics, and metabolism. Introduces cancer, immunology, and developmental biology. This course will be offered for the last time in Spring 2021. P-BIO 114 and CHM 111.

**BIO 214L. Cellular Biology Lab. (0 h)**

Lab only. No credit.

**BIO 220. Introduction to Earth Science. (3 h)**

Oceans, weather, climate, earthquakes, volcanoes, soil, and space all play important roles in our dynamic planet. Students will explore the lithosphere, hydrosphere, atmosphere, and biosphere, and gain a deeper understanding of how the Earth operates as a whole. Also listed as ENV 220. P-requires BIO 150, 150L, 160, and BIO 160L if taken as BIO 220.

**BIO 225. Field Biology and Natural History. (3 h)**

Provides a hands-on study of organisms in their natural habitats with an emphasis on local North Carolina biodiversity. Well-established sampling methods in field biology are blended with emerging technologies. P-BIO 150, 150L, 160, and BIO 160L.

**BIO 235. Genetics and Evolution. (3 h)**

Exploration of genetic evolution, biodiversity, adaptation, and genomics. Intended as an intermediate course for developing skills towards advanced studies in genetics, evolution, ecology, and molecular biology. P-BIO 150, 150L, 160, and BIO 160L.

**BIO 245. Comparative Animal Physiology. (3 h)**

Introduction to animal physiology in the context of animal diversity and evolution. P-BIO 150, 150L, 160, and BIO 160L.

**BIO 265. Cellular and Molecular Biology. (3 h)**

Exploration of the molecular mechanisms of cellular functions. P-BIO 150, 150L, 160, and BIO 160L.

**BIO 301. Topics in Biology. (1-4 h)**

Seminar and/or lecture courses in selected topics, some involving laboratory instruction. May be repeated if the course title differs.

**BIO 302. Topics in Biology. (1-4 h)**

Seminar and/or lecture courses in selected topics, some involving laboratory instruction. May be repeated if the course title differs.

**BIO 303. Topics in Biology. (1-4 h)**

Seminar and/or lecture courses in selected topics, some involving laboratory instruction. May be repeated if the course title differs.

**BIO 304. Topics in Biology. (1-4 h)**

Seminar and/or lecture courses in selected topics, some involving laboratory instruction. May be repeated if the course title differs.

**BIO 305. Topics in Biology. (1-4 h)**

Seminar and/or lecture courses in selected topics, some involving laboratory instruction. May be repeated if the course title differs.

**BIO 306. Topics in Biology. (1-4 h)**

Seminar and/or lecture courses in selected topics, some involving laboratory instruction. May be repeated if the course title differs.

**BIO 307. Biophysics. (3 h)**

Introduction to the structure, dynamic behavior, and function of DNA and proteins, and a survey of membrane biophysics. The physical principles of structure determination by X-ray, NMR, and optical methods are emphasized. Also listed as PHY 307. P-BIO 114 or 214, PHY 113 or 123, PHY 114 or 124, or POI. BIO 150, 150L, 160, and BIO 160L may be substituted for BIO 114 and 214.

**BIO 308. Biomechanics. (3 h)**

Analyzes the relationship between organismal form and function using principles from physics and engineering. Solid and fluid mechanics are employed to study design in living systems. P-BIO 114 or BIO 150, 150L, 160, and BIO 160L.

**BIO 308L. Biomechanics Lab. (1 h)**

Laboratory study of biomechanics. P or C-BIO 308.

**BIO 309. Comparative Anatomy. (4 h)**

Study of the vertebrate body from an evolutionary, functional, and developmental perspective. Labs emphasize structure and function, primarily through the dissection of representative vertebrates. P-BIO 113 and 114 or BIO 245.

**BIO 310. Community Ecology and Global Change. (4 h)**

An advanced ecology course covering mechanisms that determine the dynamics and distribution of plant and animal assemblages and their responses to and roles in global change. Lectures focus on ecological principles and theory. Lab includes local field trips and discussion of the primary literature. Weekend field trips to Outer Banks and mountains. P-BIO 113 and 114 or BIO 150, 150L, 160, and BIO 160L.

**BIO 311. Ecology and Conservation Biology of Coral Reefs. (4 h)**

In-depth study of the various biotic and abiotic components that come together to structure ecosystem function and biodiversity at all spatial scales in one of Earth's most productive and diverse environments, yet one most threatened by human use and climate change. Lab component is a one-week field trip over Spring Break. P-BIO 113 or BIO 150, 150L, 160, and BIO 160L.

**BIO 313. Herpetology. (4 h)**

Explores the biology of reptiles and amphibians, emphasizing their unique morphological, physiological, behavioral and life-history adaptations, and their evolutionary relationships. The lab consists mostly of field trips. P-BIO 113, 114 and 213 or BIO 150, 150L, 160, and BIO 160L.

**BIO 315. Population Genetics. (3 h)**

Study of the amount and distribution of genetic variation in populations of organisms and of how processes such as mutation, recombination, and selection affect genetic variation. Lectures introduce theoretical studies and include discussion of molecular and phenotypic variation in natural populations. P-BIO 113 and 213 or BIO 150, 150L, 160, and BIO 160L. (QR)

**BIO 315L. Population Genetics Lab. (1 h)**

Uses computer modeling and simulation, and experiments using populations of fruit flies and other model organisms as appropriate. P or C-BIO 315.

**BIO 316. Biology of Birds. (4 h)**

Lecture plus lab course emphasizing ecological and evolutionary influences on the physiology, behavior, diversity, and population biology of birds, and case studies in conservation biology. P-BIO 113 and 114 or BIO 150, 150L, 160, and BIO 160L.

**BIO 317. Plant Physiology and Development. (3 h)**

Examines the growth, development, and physiological processes of plants. Control of these processes is examined on genetic, biochemical, and whole plant levels. P-BIO 114, 213 and 214 or BIO 265.

**BIO 317L. Plant Physiology and Development Lab. (1 h)**

Consists of structured experiments and an independently designed research project. P or C-BIO 317.

**BIO 323. Animal Behavior. (3 h)**

A survey of laboratory and field research on animal behavior. P-BIO 113 and 114 or BIO 150, 150L, 160, or BIO 160L.

**BIO 323L. Animal Behavior Lab. (1 h)**

Laboratory study of animal behavior. P or C-BIO 323.

**BIO 324. Hormones and Behavior. (3 h)**

Explores the mechanisms of hormonal influences on behavior in a broad range of animals, including humans. P-BIO 114 or BIO 245.

**BIO 327. Mycology: Biology of Fungi. (4 h)**

Introduces fungi, their evolution and natural taxonomy; cell and molecular biology; genetics, mating, and development; primary and secondary biochemistry; and their interactions with other organisms and the environment. Lab introduces culturing, microscopic and molecular techniques. P-BIO 113, 114, 213 and 214 or BIO 150, 150L, 160, and BIO 160L.

**BIO 328. Biology of Aging. (3 h)**

Explores mechanisms of aging, and effects of aging on cellular and physiological processes in a range of organisms. P-BIO 113, 114 and 214; or BIO 235 or BIO 245 or BIO 265.

**BIO 329. Conservation Biology. (3 h)**

Lectures, readings, and discussions examining biological resources, their limitations and methods for sustainability. Genetic, aquatic, terrestrial, and ecosystem resources will be examined. P-BIO 113 or BIO 150, 150L, 160, and BIO 160L.

**BIO 330. Land and Natural Resource Management. (3 h)**

Provides a fundamental understanding of land and resource management. The major focus is on federal oversight and policies but state, local, non-profit, and international aspects are included. P-BIO 113 or BIO 150, 150L, 160, and BIO 160L.

**BIO 332. Microbiology. (4 h)**

Structure, function, and taxonomy of microorganisms with emphasis on bacteria. Topics include microbial ecology, industrial microbiology, and medical microbiology. Lab emphasizes microbial diversity through characterizations of isolates from nature. P-CHM 122 and BIO 213 and 214 or CHM 122 and BIO 150, 150L, 160, and BIO 160L.

**BIO 333. Vertebrates. (4 h)**

Systematic study of vertebrates, with emphasis on evolution, physiology, behavior, and ecology. Laboratory devoted to systematic, field, and experimental studies. P-BIO 113 and 114 or BIO 150, 150L, 160, and BIO 160L.

**BIO 334. Parasitology. (4 h)**

Survey of protozoan, helminth, and arthropod parasites with a focus on cellular biology, life cycles, host-parasite relationships, and public health implications. Laboratory emphasizes microscopy-based techniques for examining parasite morphology and intracellular structures. P- BIO 113 and 114 or BIO 265.

**BIO 335. Insect Biology. (4 h)**

Introduction to the diversity, structure, development, physiology, behavior, and ecology of insects. P-BIO 113 and 114 or BIO 150, 150L, 160, and BIO 160L.

**BIO 336. Development. (3 h)**

Study of the molecular, cellular, and anatomical aspects of embryonic development of invertebrate and vertebrate animals. P-BIO 114, 213 and 214, or BIO 150, 150L, 160, or BIO 160L.

**BIO 336L. Development Lab. (1 h)**

Laboratory study of the molecular, cellular, and anatomical aspects of embryonic development of invertebrate and vertebrate animals. P or C-BIO 336.

**BIO 338. Plant Diversity. (3 h)**

Explores the diversification of plants in the context of convergent evolution, functional processes and ecological importance. P-BIO 113 or BIO 150, 150L, 160, and BIO 160L.

**BIO 338L. Plant Diversity. (1 h)**

Plant diversity lab. P or C-BIO 338.

**BIO 340. Ecology. (4 h)**

Introduction to the interrelationships among living systems and their environments; structure and dynamics of major ecosystem types; contemporary problems in ecology. P-BIO 113 and 114 or BIO 150, 150L, 160, and BIO 160L. (QR)

**BIO 341. Marine Biology. (3 h)**

An introduction to the physical, chemical, and biological parameters affecting the distribution of marine organisms. P-BIO 113 and 114 or BIO 150, 150L, 160, and BIO 160L.

**BIO 341L. Marine Biology. (1 h)**

Marine biology lab. P or C-BIO 341.

**BIO 342. Oceanography. (4 h)**

Introduces the geological, physical, chemical, and biological processes that govern the global oceans and their role in climate change. Lab focus is on tools and research questions pertinent to the field of biological oceanography. P-CHM 111 and BIO 113 or CHM 111 and BIO 150, 150L, 160, and BIO 160L.

**BIO 343. Molecular Neuroscience. (3 h)**

Investigates the cellular and molecular basis of neural function, including the molecular basis of neurological disorders. P-BIO 213 and 214 or BIO 150, 150L, 160, and BIO 160L.

**BIO 346. Neurobiology. (3 h)**

Introduces the structure and function of the nervous system including the neural basis of behavior. P-BIO 114 and 214 or BIO 150, 150L, 160, and BIO 160L.

**BIO 346L. Neurobiology Lab. (1 h)**

Laboratory emphasizing electrophysiological techniques with experiments from the cellular to the behavioral level. Students will design and complete their own projects. C-BIO 346.

**BIO 348. Physiological Plant Ecology. (3 h)**

Provides a fundamental understanding of how plants have adapted to the stresses of their habitats, particularly in harsh or extreme environments such as deserts, the alpine, the arctic tundra, and tropical rain forests. P-BIO 113 and 114 or BIO 150, 150L, 160, and BIO 160L.

**BIO 348L. Physiological Plant Ecology. (1 h)**

Physiological plant ecology lab. P or C-BIO 348.

**BIO 349. Tropical Biodiversity of the Amazon and Andes. (4 h)**

Intensive field course in tropical biodiversity focusing on ecosystems, natural resource management, and conservation. Students will travel to major tropical biomes in the vast tropical wildernesses of Andean and Amazonian Peru. Lectures emphasize the basic ecological principles important in each ecosystem. Field-based labs focus on student-designed projects. Offered in the summer only. POI required.

**BIO 352. Developmental Neuroscience. (4 h)**

Focuses on the development of neural structures and the plasticity of the mature nervous system. Laboratory features immunocytochemical and cell culture techniques for the study of neurons. P-BIO 213 and 214 or BIO 265.

**BIO 353. Functional Neuroanatomy. (3 h)**

Introduces the anatomical organization of the vertebrate central nervous system. P-BIO 214 or BIO 245.

**BIO 354. Methods in Neuroscience. (3 h)**

Introduces the techniques used in the field of neuroscience. Anatomical, physiological, molecular and behavioral methods are covered through lectures, laboratory work, and reading the primary literature. Also offered in Salamanca. P-BIO 114 and 214 or BIO 150, 150L, 160, and BIO 160L.

**BIO 356. Ecology and Resource Management of Southeast Australia. (4 h)**

Intensive field-oriented course focusing on ecosystems, natural resource management and environmental conservation of southeastern Australia. Students travel to major biomes including sub-tropical rainforests, coral reefs and the Australian urban environment. Laboratories are field-based, with some consisting of student-designed projects. Taught only in summers in Australia. P-BIO 113 or BIO 150, 150L, 160, and BIO 160L or POI.

**BIO 357. Bioinspiration and Biomimetics. (3 h)**

Explores the ways in which biological mechanisms can inspire new technologies, products, and businesses. The course combines basic biological and entrepreneurial principles. Also listed as ENT 357. P-BIO 114 or BIO 150, 150L, 160, and BIO 160L.

**BIO 358. Biogeography. (3 h)**

Study of geographic variation and distribution of organismal diversity using theoretical, historical and ecological information with specific applications to conservation and sustainability. P-BIO 113 or BIO 150, 150L, 160, and BIO 160L.

**BIO 358L. Biogeography Lab. (1 h)**

Introduces methods of analysis related to the study of biogeography. P or C-BIO 358.

**BIO 360. Metabolic Diseases. (3 h)**

Explores genetic and biochemical pathways in the context of inborn errors of metabolism. P-BIO 370/CHM 370/BMB 370.

**BIO 361. Principles of Biological Microscopy. (4 h)**

Introduces the fundamentals of biological imaging techniques. Students will explore a variety of microscopic methods as well as image acquisition, post-image processing, and scientific figure creation. Emphasis will be on both a theoretical and practical understanding of microscopic imaging principles. Concepts of experimental design and data critique will be explored through student projects and presentations. P-BIO 214 or BIO 265.

**BIO 362. Immunology. (3 h)**

Study of the components and protective mechanisms of the human immune system, including innate and acquired immunity. P-BIO 214 or BIO 265.

**BIO 363. Sensory Biology. (3 h)**

Introduction to sensory physiology and other aspects of sensory systems, e.g. molecular biology and anatomy. Also offered in Salamanca. P-BIO 114 and 214 or BIO 150, 150L, 160, and BIO 160L.

**BIO 363L. Sensory Biology Lab. (1 h)**

Laboratory emphasizing electrophysiological and behavioral techniques to examine sensory systems. Students will design and complete their own projects. C-BIO 363.

**BIO 365. Biology of the Cell. (3 h)**

Lecture course on classic and recent experiments in cell biology. Analysis and interpretation of experimental data from the primary literature is emphasized. P-BIO 213 and 214 or any BIO course at the 211 level or above.

**BIO 365L. Biology of the Cell Lab. (1 h)**

Laboratory course introducing basic techniques in cell biology, leading to an independent project. P or C-BIO 365.

**BIO 367. Virology. (3 h)**

Introduces molecular virology, including viral replication, viral-cell interactions, viral disease, and methods for studying and controlling viruses. P-BIO 213 and 214 or BIO 265.

**BIO 368. The Cell Biological Basis of Disease. (3 h)**

Examines defects in basic cellular mechanisms that may lead to disease. P-BIO 214 or BIO 265.

**BIO 368L. The Cell Biological Basis of Disease Lab. (1 h)**

Lab uses advanced microscopic and histological techniques to investigate basic properties of cells. P or C-BIO 368.

**BIO 369. Cancer Biology. (3 h)**

Analysis of molecular and cellular mechanisms that transform normal cells, trigger abnormal proliferation, and lead to tumor formation. Emphasis is on the biological basis of cancer, with some exploration of clinical and social consequences. P-BIO 213 and 214, or BIO 235 or BIO 245, or BIO 265.

**BIO 370. Biochemistry I: Macromolecules and Metabolism. (3 h)**

Introduces principles of biochemistry including structure, function, and biosynthesis of biological molecules, analysis of enzyme function and activity, bioenergetics, and regulation of metabolic pathways. Also listed as BMB 370 and CHM 370. P-any two of the following with associated labs: CHM 122 (or CHM 123), CHM 280 or BIO 214; or any two of the following: CHM 122 (or CHM 123), CHM 280, or BIO 265.



**BIO 370L. Biochemistry Lab. (1 h)**

Overview of biochemical approaches to study structure and function of macromolecules. Also listed as CHM 370L. Credit allowed for BIO 370L/CHM 370L or BIO 371L/BMB 371L/CHM 371L, but not both. P or C-BIO 370/BMB 370/CHM 370.

**BIO 371L. Advanced Biochemistry Lab. (1.5 h)**

Emphasizes approaches for isolation and analysis of enzymes.

Required for BMB major and the chemistry major with concentration in biochemistry. Recommended for research focused students. Also listed as BIO 371L and CHM 371L. Credit allowed for BIO 370L/CHM 370L, or BMB 371L/BIO 371L/CHM 371L, but not both. P or C-BMB 370/BIO 370/CHM 370.

**BIO 372. Advanced Molecular Biology. (3 h)**

Presents molecular mechanisms by which stored genetic information is expressed including the mechanisms for and regulation of gene expression, protein synthesis, and genome editing. Emphasizes analysis and interpretation of experimental data from the primary literature. Also listed as BMB 372. P-BIO 370/BMB 370/CHM 370.

**BIO 372L. Advanced Molecular Biology Laboratory. (1.5 h)**

Introduces modern methods of molecular biology to analyze and manipulate expression of genes and function of gene products. Also listed as BMB 372L. P or C-BIO 372/BMB 372 or BMB 373/CHM 373.

**BIO 374. Neuropharmacology. (3 h)**

Introduces how pharmacological agents affect cellular and molecular functions in the nervous system of normal and disease states. Lecture and case studies will be used to examine topics including drugs targeting mood and emotion, memory and dementia, and movement disorders. Drugs of abuse and the neurological basis of addiction will also be evaluated. P-BIO 214 or BIO 150, 150L, 160, and BIO 160L.

**BIO 379. Introduction to Geographic Information Systems (GIS). (4 h)**

Introduces the concepts and use of GIS as a mapping and analytical tool with emphasis on applications environmental modeling, global change, sociodemographic change, and site suitability analyses. P-BIO 113 or BIO 150, 150L, 160, and BIO 160L.

**BIO 380. Biostatistics. (3 h)**

An introduction to statistical methods used by biologists, including descriptive statistics, hypothesis-testing, analysis of variance, and regression and correlation. P-BIO 114 or BIO 150, 150L, 160, and BIO 160L. (QR)

**BIO 381. Epigenetics. (3 h)**

Studies the molecular mechanisms for inheritance of genome modifications. Uses primary literature to explore the environmental and developmental signals that influence epigenetic controls of gene expression and disease. Also listed as BMB 381. P-BIO 213 and 214, or BIO 265.

**BIO 381L. Epigenetics Laboratory. (1 h)**

Provides hands-on experiences with genome editing and molecular genetics to address the function and expression of genes. Also listed as BMB 381L. P or C-BIO 381 or POI.

**BIO 382. Molecular Signaling. (3 h)**

Examines the molecular and biochemical mechanisms by which hormones, neurotransmitters, and other signaling molecules act to change growth, development, and physiological and behavioral responses of organisms with a focus on discussion of primary literature. Also listed as BMB 382. P-BIO 213, 214, and BIO 370/BMB 370/CHM 370 or BIO 265 and BIO 370/BMB 370/CHM 370.

**BIO 383. Genomics. (3 h)**

Examines the architecture, expression, and evolution of genomes. Uses current primary literature to examine the functional and evolutionary dynamics of genomes and the modern analytic techniques used to investigate genome-wide phenomena. Also listed as BMB 383. P-BIO 160 and 160L or CSC 112 or STA 212; and an introductory statistics course such as STA 111, ANT 380, BIO 380, or PSY 311.

**BIO 383L. Genomics Lab. (1 h)**

Introduces analytic methods and interpretation of genome wide data through practical tutorials. Also listed as BMB 383L. P or C-BIO 383.

**BIO 384. Molecular Evolution. (3 h)**

Study of the evolutionary analysis of biological sequences in population genetic and phylogenetic contexts. Explores statistical and bioinformatic techniques for investigating population evolution, molecular adaptations, and reconstruction of evolutionary history through primary literature. P-BIO 160 and 160L or CSC 112 or STA 212; and an introductory statistics course such as STA 111, ANT 380, BIO 380, or PSY 311.

**BIO 384L. Molecular Evolution. (1 h)**

Introduces evolutionary analytic methods and interpretation of molecular data through practical tutorials. P or C-BIO 384.

**BIO 385. Bioinformatics. (3 h)**

Introduction to computational approaches essential to modern biological inquiry. Approaches may include large biological dataset analyses, sequence similarity and motif searches, and analysis of high-throughput genomic technologies. Emphasizes interdisciplinary interaction and communication. Also listed as CSC 385 and PHY 385. P-CSC 201 or 221 (and BIO 150, 150L, 160, and BIO 160L if taken as BIO 385) or POI.

**BIO 387. Computational Systems Biology. (3 h)**

Introduction of concepts and development of skills for comprehension of systems biology problems, including both biological and computational aspects. Topics may include genome-wide transcriptomic analysis, protein interaction networks, large-scale proteomics experiments, and computational approaches for modeling, storing, and analyzing the resulting data sets. Emphasizes interdisciplinary interaction and communication. Also listed as CSC 387. P-CSC 201 or 221 (also requires BIO 150, 150L, 160, and BIO 160L if taken as BIO 387) or POI.

**BIO 388. Methods in Molecular Genetics. (4 h)**

Hybrid lecture/laboratory course gives students a hands-on introduction to a diverse array of techniques commonly used in molecular genetics laboratories. P-BIO 213 and 214, or BIO 150, 150L, 160, and BIO 160L.

**BIO 390. Mentored Research. (2 h)**

Introduces the technology and techniques of research. Working under the supervision of a faculty member or research staff, students will obtain experience in experimental design and analysis. The course may be taken as a precursor to BIO 391. Satisfies the research requirement for the BA and BS degrees. Pass/Fail option. P-BIO 150, 150L, 160, 160L, and POI required.

**BIO 391. Independent Research. (2 h)**

Students participate in a research project involving collection or analysis of data to investigate a defined research question. Students are required to submit a written paper or poster documenting research progress. The same numbered course cannot be repeated. Subsequent courses must be taken in consecutive order. Satisfies the research requirement for the BA and BS degree. Pass/Fail option. P-BIO 150, 150L, 160, 160L and POI required.



**BIO 392. Independent Research. (2 h)**

Continuation of research beyond BIO 391. Students are required to submit a written paper or poster documenting research progress. The same numbered course cannot be repeated. Pass/Fail option. P-BIO 391 and POI required.

**BIO 393. Research in Biology. (2 h)**

Continuation of research beyond BIO 392. Students are required to submit a written paper or poster documenting research progress. The same numbered course cannot be repeated. Pass/Fail option. P-BIO 392 and POI required.

**BIO 394. Research in Biology. (2 h)**

Continuation of research beyond BIO 393. Students are required to submit a written paper or poster documenting research progress. The same numbered course cannot be repeated. Pass/Fail option. P-BIO 393 and POI required.

**BIO 399. Mentored Biology. (2 h)**

Students explore career opportunities in biology-related fields or experiences. Students are required to submit a written paper or poster describing research internship or experience to their adviser. Plans must be approved in advance by the adviser. Course can be repeated for credit, but only 4 total hours will count toward the BA BIO major. Does not count toward the BS BIO major or the BIO minor. Pass/Fail only. P-BIO 150, 150L, 160, 160L and POI required.

## Business & Enterprise Mgmt (BEM)

**BEM 201. Quantitative Analysis I. (3 h)**

Emphasizes the understanding and application of quantitative tools used in the business decision-making process. Issues covered include collection and presentation of data, sampling, and inferences. P-ACC 111 with a C or better and sophomore standing; or POI. (QR)

**BEM 202. Quantitative Analysis II. (3 h)**

Emphasizes the understanding and application of quantitative tools for analysis and managerial decision-making. Topics include such statistical tools as Chi-Square methods, analysis of variance and regression, and correlation analysis. Management science tools include statistical decision theory and some deterministic optimization models such as linear programming and its various extensions. Application of these methods to the analysis of decisions from various functional areas of business is an important component of the course. P- BEM 201.

**BEM 211. Organizational Behavior. (3 h)**

This survey course provides a broad overview of several evidence-based theories and frameworks of organizational behavior (OB) at the individual, group and organizational levels of analysis that can be applied to help identify, diagnose and provide solutions to important organizational challenges. In this way, students will gain the requisite knowledge and skills necessary to become more effective working professionals. P- or C- (For BEM majors only) BEM 287.

**BEM 221. Principles of Marketing. (3 h)**

Investigates the means by which firms create, maintain, and improve relationships with customers through the development of strong brands and effective marketing programs. Emphasizes the application, rather than the acquisition, of marketing knowledge. Explores how the four Ps-product, price, place, and promotion-can be used to solve problems, exploit opportunities and meet challenges in the global marketplace. Discussions, cases, objective tests, in-class exercises and a marketing campaign project are among the instructional methods used. P-ECN 150, ACC 111, or POI.

**BEM 241. Production and Operations Management. (3 h)**

Introduces the basic concepts of operations strategy and operations planning in support of the business strategy of the firm. Topics include: operations strategy, quality management, project planning and control, capacity planning, location, layout, demand forecasting, supply chain management, aggregate planning, production scheduling, and inventory systems. P-BEM 201; STA 212 for MBU majors.

**BEM 251. Management Information Systems. (3 h)**

Introduction to the business issues associated with information systems, designed to provide a broad perspective for utilizing and managing an organization's information resources. Frameworks are presented for understanding the placement and relationship of different types of information systems within an organization. Includes an overview of computing technology currently used in business organizations, techniques for developing and implementing information systems, advanced applications of information technology, and the strategic implications of information systems and technology for business.

**BEM 261. Legal Environment of Business. (3 h)**

Study of the legal environment in which business decisions are made in profit and nonprofit organizations. Emphasis is on how the law develops and how economic, political, social, international, and ethical considerations influence this development. Includes an overview of private law topics (such as torts, contracts, and agency) and public regulation of the employment relationship, the competitive marketplace and the environment. P- or C-ACC 111.

**BEM 287. Professional Development Workshop Series A. (0-1.5 h)**

Enhances students' career-building skills through a series of workshops designed to address specific dimensions of professional development and career management. Students select from a menu of opportunities available during their first year in the management program, content varies. Pass/Fail only. P-Admission to the School of Business and the BEM major.

**BEM 312. Human Resource Management. (3 h)**

Focuses on important human resources management (HRM) skills that are frequently used by general managers. Upon completion of the course, students should be literate in basic HRM concepts, knowledgeable of general managers' HRM responsibilities, and skilled in HRM applications as prospective managers. P- BEM 211.

**BEM 315. Managing in a Global Context. (3 h)**

Focuses on professional effectiveness in a global setting, whether in a global company, leading a global team, or doing business abroad. Emphasis is on cross-cultural differences and their impact on the conduct of business. Conducted in a seminar format, the course examines the complexities involved in operating in different cultures and the implications which these cultural differences have on managing organizations and employee behavior. P-BEM 211 or POI.

**BEM 316. Leading in Nonprofit Sector. (3 h)**

Explores the role of nonprofit organizations (churches, schools, civic organizations, health clinics, etc.) and examines how to effectively lead them. Basic knowledge areas of responsibility in nonprofit organizations (i.e. legal classifications and issues, recruiting and managing volunteers, community development, fundraising, board development and ethical concerns) are covered. Pertinent leadership theories and issues addressed. One half of the available seats are open to non-School of Business majors. P-Junior or senior standing.

**BEM 318. Calloway Leadership Experience. (3 h)**

Explores the history, art, science and practice of leadership in organizational settings. Focuses on theories and contemporary applications of such issues as change, vision, communication, coaching, followership, and motivation. The experience will capitalize on liberal arts background, previous business courses and students' practicum experience to demonstrate practical leadership insights. Emphasis will be placed upon merging theory and practice using experiential learning to prepare students to excel in leadership positions in their organizations and communities. P - Senior standing and BEM 287.

**BEM 322. Global Marketing Strategy. (3 h)**

Builds on BEM 221 to explore strategic issues in the global marketplace in greater depth through intensive examination of cases from consumer and industrial markets; product and service businesses; and for-profit and nonprofit organizations. Analyzes social, cultural, economic, legal, and political factors present in the global marketplace and their impact on planning and implementing marketing strategy. Focuses on building analytical and decision-making skills. Objective is to ensure students understand the key role of marketing strategy in achieving and maintaining competitive advantage in an ever-changing, increasingly complex global business environment. P-BEM 221.

**BEM 323. Selected Topics in Marketing. (3 h)**

Identifies the most current marketing topics and practices in the dynamic global marketplace and covers them in detail. Focuses on the application of leading-edge concepts and ideas in the creation of superior marketing strategies. Seminar approach requires active student participation in the identification, elaboration, and discussions of course material. P-BEM 221.

**BEM 324. Marketing Research. (3 h)**

Introduction to fundamentals of research methodology and use of research information in marketing decision-making. Topics include research design, data collection methods, scaling, sampling, and alternate methods of statistical data analysis. Students design and execute their own research projects. P- BEM 201 and 221.

**BEM 325. Consumer Behavior. (3 h)**

Focuses on understanding the customers/consumers/buyers/clients/patients/ patrons without whom marketing and business cannot survive. Examines consumer motivations, influences, decision-making processes and behaviors as they relate to the development of competitive marketing strategy. Discussions, mini-cases, in-class exercises, and a project are among the instructional methods used in the course. P- BEM 221 or POI.

**BEM 326. Brand Management and New Product Development. (3 h)**

Provides students with a unique insight into the role of a brand manager charged with identifying and implementing strategies to measure, manage and build brand equity over time. Special emphasis will be placed on identifying new sources of profitable growth while enhancing brand equity through strategic new product development. A team-based approach is utilized and supported by lectures, case studies, guest speakers, and a semester-long brand equity assessment/new product development project. P-BEM 221.

**BEM 327. Marketing Communications. (3 h)**

Designed for students whose career plans involve making strategic marketing decisions. Emphasizes ways to foster relationships with consumers by establishing a dialogue through advertising, consumer and trade promotions, the Internet, direct mail, publicity, packaging, point of sale material and event sponsorship. Discussions, cases, in-class exercises, oral presentations, and a marketing communications campaign project are among the instructional methods used in the course. P-BEM 221.

**BEM 328. Sports Marketing. (3 h)**

Focuses on the application of the strategic marketing process to the rapidly growing sports industry. Varied elements of the industry are examined: understanding the sports consumer; marketing and media; advertising and communication; promotion and special events; licensing; and corporate sponsorships. Current research, including gender-specific marketing, using athletes as endorsers, segmenting the sports market, measuring value of sponsorship, and the impact of technology on sports are covered. P- ECN 150 or equivalent.

**BEM 329. Marketing Analytics. (3 h)**

This course will cover the principles and strategic concepts of marketing analytics, a high-growth area that uses quantitative strategies, resource allocation decisions, and return on marketing investment (ROMI). Topics may include forecasting and positioning; predictive analytics; customer profitability; digital and social media analytics; and resource allocation. P - BEM 201, 221.

**BEM 332. Financial Statement Analysis. (1.5 h)**

This course is intended to present you with a framework for using financial and market information to analyze a business and assess its potential market value. The focus will be on the information included in a firm's financial statements and the accompanying notes, however you will also consider how other available information is relevant to this analysis. Throughout the semester we will examine (i) how to analyze and assess a company's business strategy, (ii) how to interpret and analyze differences in firm-specific application of accounting techniques, (iii) how to analyze financial data in a systematic and logical method, (iv) techniques for forecasting financial information, and (v) techniques for equity valuation. These components will then be pulled together into a comprehensive framework for evaluating a business focusing on the available financial information. P—ACC 111, 221; FIN 231; BEM 201, P or C—BEM 371, or POI.

**BEM 342. Project Management. (1.5 h)**

With today's problems being increasingly more complex, this course offers an important skill set addressing these problems by covering concepts and issues important in effectively managing projects. Some of the topics are project selection, project planning, resource allocation, project control, project auditing, as well as team creation and team leadership. Upon completion of this course, students will have an understanding of the challenges and opportunities involved in project management. They will also understand the types of decisions involved in effectively completing a project meeting stakeholders' expectations, on time, and within budget. P—ACC 111, 221; FIN 231; BEM 201, P or C—BEM 371, or POI.

**BEM 362. Contemporary Issues in Law and Public Policy. (3 h)**

In a seminar setting, the course explores emerging topics that have the capacity to affect the marketplace in significant ways. Flowing naturally from previous law-oriented classes, it provides the opportunity for students to delve more deeply and critically into the actual policies that give rise to legislation, case precedent, and regulation. As such, the course encourages strategic thinking about decision-making in a complex, ever-changing business environment. P-BEM 261.

**BEM 365. Ethics and Business Leadership. (3 h)**

An interdisciplinary exploration of ethics applied to business. Lectures, readings, and case-based approach introduce the necessary background information. Examples of ethical and unethical situations are used to develop an understanding of how an efficient and effective business can also be ethical. P- Junior or senior standing.

**BEM 371. Strategic Management. (3 h)**

Focuses on the derivation of competitive advantage and sustainable, superior performance by organizations. Emphasizes the shape, character, and overall direction of the total enterprise, and the activities of managers who are responsible for achieving strategic coordination and coherence across functions and divisions. Course content includes analyzing the effects of industry and competitive environments on the firm, determining the basis upon which the firm should compete, formulating and implementing integrative action plans, and strategic leadership. Strategy analysis frameworks are applied to situations including for-profit and nonprofit organizations, diversification, global strategy, and strategic change. This is a discussion-oriented class in which principles of strategic management are applied to complex case studies. P-(all majors) BEM 211, 221 and FIN 231. P or C-(all majors) BEM 241. P-(BEM majors only) BEM 287, 389.

**BEM 372. Strategic Management in Entrepreneurial Firms. (3 h)**

Core foundational concepts in strategic management are critically examined in the context of entrepreneurial firm settings. Emphasis is placed on applying principles of competitive analysis and strategic planning using case studies of startups, fast-growth firms, young firms in rapidly-changing industries, firms confronting early organizational life cycle problems, and new ventures seeking to expand internationally. Unique strategy issues confronted by new venture and by firms operating in electronic commerce, technology, and other fast-paced industries will be considered. This is a discussion-oriented class in which principles of strategic management are applied to complex case studies. P (All majors)-BEM 211, 221 and FIN 231. P or C-BEM 241. P-(BEM majors only)-BEM 287 and BEM 389.

**BEM 375. Contemporary Issues in Business and Foundations of Capitalism. (3 h)**

Explores contemporary business issues such as corporate social responsibility, government regulation of business, health care and/or tax policy implications for business, stakeholders versus stockholders, and sources of economic development in less-developed nations. To do so we examine the foundations of capitalism its moral and intellectual underpinnings, the principal arguments that challenge and support capitalism and free markets, and the obligations of free institutions in society. This will be accomplished by reading a combination of novels, the work of leading political economists who have shaped generations of thinking at the highest levels of government and academia about capitalism, economics and free markets and recently-published works by business and political leaders.

**BEM 376. Introduction to Consulting. (1.5 h)**

This course is designed to expose you to the consulting mindset and the typical phases of a consulting engagement – selling a project, defining the problem/objective, gathering data, analysis, diagnosing solutions, and implementing recommendations. Effort will be placed on developing proficiencies in a range of skills required to practice consulting –e.g., critical thinking; data analysis; communication; relationship management; and the advanced use of software tools.

**BEM 377. Entrepreneurship. (3 h)**

Exposes students to multiple facets of entrepreneurship and teaches about creating new ventures in a very hands-on fashion. A broad range of ideas, readings, and cases enable students to understand the ambiguous and highly-charged environment of entrepreneurship, the contribution of entrepreneurial endeavors to business and society, and the characteristics of successful new venture startups. Focuses on three areas that define successful entrepreneurial pursuit of new for-profit, non-profit, and social enterprise initiatives: recognizing opportunity, management, and assembling resources. The completion of a team-based business plan for a new venture is usually required. Guest speakers present their views of entrepreneurial organizations based on real-world experiences- startup, financing, legal, transition, failure, etc. P- BEM 211, 221, and FIN 231, or POI.

**BEM 380. Selected Topics in Business. (1-3 h)**

An examination of selected topics in business. May be repeated if course title differs.

**BEM 381. Individualized Reading and Research. (1-3 h)**

Directed study in specialized areas of business. P- POI.

**BEM 382. Management in the Visual Arts. (3 h)**

Taught by faculty from the School of Business and the Art Department. It provides both art and business students with the essential skills, pragmatic experiences, and a conceptual framework for understanding the role the visual arts play within the national and international economies. Students receive preparation for involvement in art galleries, auction houses, museums, and publishing, as well as for contributions to various boards and organizations that commission or purchase works of art. The marketing, financial, legal, and strategic aspects of art management are explored. Emphasis is on dialogue between art majors and business majors enrolled in the course. Field study in at least one major metropolitan area for the purpose of gaining intensive exposure to professional arts management is required, but the majority of travel costs are covered by the University. One half of enrollment spaces are available for students who have been accepted into the School of Business; the remaining half of the spaces are available to declared art majors with junior standing or higher. Also listed as ART 297. P-Junior or senior standing and POI.

**BEM 383. Seminar in Negotiations. (3 h)**

Focuses on the process of conducting successful negotiations in a business setting. Introduces concepts, theories, and analytical frameworks that underlie common negotiation techniques. Practical skills are emphasized through negotiation exercises and the analysis of contemporary business situations. Lectures, discussions, and role plays are among the instructional methods used. P- Senior status or POI.

**BEM 384. Design-Thinking and High-Performance Teams. (3 h)**

In this experiential class, we study the evolution of high-performance teams in design-thinking environments. At its core, design thinking is an approach to innovative problem solving that balances art, science, and business perspectives in realistic and highly impactful ways. In this course we develop the ability to participate in and lead high-performance teams within a design-thinking environment. The course involves an action-learning project that applies the perspectives of anthropology, history, political science, communication, and psychology, among others, in solving a real-world problem. Also listed as ENT 384.

**BEM 385. Why Business. (3 h)**

Business is about the creation of value in society, but the goals of the noble profession of business are often deemphasized. This course examines the philosophical, legal, and economic foundations of business and the ways the institutions of our society challenge and support the creation of value. Students will explore their place in this system as professionals who steward the broader system of business. P-Junior or senior standing; or POI.

**BEM 386. Selected Topics in Real Estate. (1.5 h)**

Examines the most pertinent topics in real estate. Focuses on subjects such as ownership and interest, the legal aspects of real estate, real estate finance and real estate trends. P-Senior standing and POI.

**BEM 388. Management Simulation. (1.5 h)**

Designed to integrate the functional areas of business through the use of an experiential simulation exercise. The simulation that provides the foundation of this course requires students to draw on their learning from previous courses in operations, marketing, finance, human resource management, information systems and strategic management. Students are organized into cross-functional management teams, and the teams are required to make plans for a business enterprise operating in a competitive environment, make critical managerial decisions in response to real-world situations that arise, and present their work to a faculty committee. P-Senior standing and BEM 211, BEM 221, BEM 241, BEM 251, and FIN 231; P or C-BEM 371 or 372 (MBU majors are exempt from strategy requirement).

**BEM 389. Management Internship. (3 h)**

The internship is a supervised learning experience that applies business coursework to an actual work environment for academic credit. The internship is subject to approval and consists of both academic and on-the-job learning components. P- Acceptance as a BEM major and completion of 15 hours of School of Business credit which must include BEM 211 and 287.

**BEM 391. Global Business Studies. (3 h)****BEM 392. Seminar in Mathematical Business Analysis. (3 h)**

Provides mathematical business majors with a forum where they can actually see how the mathematical, statistical and computer techniques can be brought to bear on many business problems in a variety of business functions. Emphasis is more on studying the process of modeling and implementation issues of the solutions and less on the algorithmic details. Critical and reflective thinking about models and translation of their results into management action that will add value to a process or a system is a major objective. Another objective of the seminar is to foster group work and the sharpening of presentation skills. P-BEM 211, 221, 241, FIN 231, MST 253, 353, and STA 212.

**BEM 393. Principles of Risk Management. (3 h)**

Intended to assist students in identifying and analyzing risk and in managing it through a variety of mechanisms. Techniques such as loss control, risk retention, and risk transfer are discussed. This course also includes professional risk management field work, under the direction of a faculty member. Students will gain relevant practical experience that is integrated with casework and risk management theory. Emphasis is on analysis, decision-making in a global environment, teamwork, written and verbal skills, presentation skills, and using technology to solve problems. P-Junior or senior standing and POI.

## Business (BUS)

**BUS 101S. Introduction to Business Software. (1.5 h)**

Provides students with basic skills in business software. Focuses on software for presentations, spreadsheets, and databases. In addition, students are familiarized with databases provided through the library and through the Internet that facilitate their ability to do research. This course does not count towards a School of Business degree. Summer only.

**BUS 111. Professional Life Skills. (1.5 h)**

Provides students with the basics of managing their personal finances and employee benefits. Focuses on topics such as: personal banking and budgeting fundamentals; individual credit and tax issues; employee investment and insurance options; and home rental or purchase considerations. Open to School of Business and non-School of Business students. Does not count towards a School of Business degree. Pass/Fail only.

**BUS 131. Personal Finance for Everyone. (3 h)**

This course is designed to set students with no required previous financial knowledge on a path to a life of financial empowerment and freedom. The course covers financial planning, budgeting, credit cards, investing, income taxes, financial markets, insurance, purchasing a home or car, estate planning and many other critical financial issues. The course emphasizes current relevant laws and regulations, construction of detailed models, and relevant research. Open to all Wake Forest students. Does not count toward a School of Business major or concentration.

**BUS 181. Field Study. (1 h)**

Directed field study in specialized areas of business. Does not count towards a School of Business degree. Pass/Fail only. Limit of 2. P-ACC 111, POI.

**BUS 281. Individualized Reading and Research. (1-3 h)**

Directed study in specialized areas of business. P-POI.

**BUS 295. Summer Management Program. (8 h)**

A study of the various functions of business including accounting, finance, information systems, management, marketing, production, and strategic planning. Special application and admission procedures. Does not count towards a Calloway Major. Pass/Fail only. Offered only in the summer and open only to junior and senior liberal arts majors.

**BUS 296. Silicon Valley Practicum. (3 h)**

The practicum, which includes on-the job and academic components, is a supervised learning experience that applies the foundational business skills learned in the Summer Management Program. Required residency in Northern California. Special application and admissions procedures. Applicants must successfully complete BUS 295 Summer Management Program. Does not count toward a business major.

**BUS 297. SportsBIZ. (6 h)**

Study of the concepts, operations, and management principles associated with the sports industry. Students are introduced to such areas as the foundation of sports management, sociology of sports, sports marketing, psychology of coaching, sports economics and finance, ethics in management of sports organizations, legal issues in sports management, athletics administration, facilities management, and the strategic management of sports organizations. Students may not receive credit for both BUS295 and BUS297. Pass/Fail only. Offered only in the summer with preference given to first-year students.

**BUS 350. General International Elective. (1-3 h)**



# Chemistry (CHM)

## CHM 108. Everyday Chemistry. (4 h)

Introduction to chemistry for non-science majors. Laboratory covers experimental aspects of topics discussed in lecture. Does not count towards the major or minor in chemistry. C-CHM 108L. (D, QR)

## CHM 108L. Everyday Chemistry Lab. (0 h)

C-CHM 108.

## CHM 111. College Chemistry I. (3 h)

Fundamental chemical principles. Also offered in Salamanca. C-CHM 111L. (D, QR) (Offered Fall Only)

## CHM 111L. College Chemistry I Lab. (1 h)

Laboratory covers experimental aspects of basic concepts. C-CHM 111. (Offered Fall Only)

## CHM 120. Physics and Chemistry of the Environment. (4 h)

Covers the basic physical and chemical processes in the earth's atmosphere, biosphere and the oceans. Also listed as PHY 120. (D, QR)

## CHM 120L. Physics and Chemistry of the Environment Lab. (0 h)

C-CHM 120.

## CHM 122. Organic Chemistry I. (3 h)

Principles and reactions of organic chemistry. Students may not receive credit for both CHM 122 and CHM 123. P-CHM 111. C-CHM 122L. (D) (Offered Spring Only)

## CHM 122L. Organic Chemistry I Lab. (1 h)

P-CHM 111. C-CHM 122. (Offered Spring Only)

## CHM 123. Organic Chemistry I Honors. (3 h)

Principles and reactions of organic chemistry. Freshmen only, by invitation. P-CHM 111. C-CHM 123L. (D) (Offered Fall Only)

## CHM 123L. Organic Chemistry I Honors Lab. (1 h)

P-CHM 111. C-CHM 123. (Offered Fall Only)

## CHM 223. Organic Chemistry II. (3 h)

Principles and reactions of organic chemistry. P-CHM 122 or 123. (Offered Spring and Fall)

## CHM 223L. Organic Chemistry II Lab. (1 h)

P or C-CHM 223.

## CHM 280. College Chemistry II. (3 h)

Advanced study of fundamental chemical principles. P-CHM 111. (D, QR) (Offered Spring Only)

## CHM 280L. Theory and Methods of Quantitative Analysis Lab. (1 h)

Emphasizes technique development for accuracy and precision. P or C-CHM 280. (Offered Spring Only)

## CHM 301. Elective Research. (0 h)

P-POI. Summers only.

## CHM 302. Elective Research. (0 h)

P-POI. Summers only.

## CHM 311. Current Topics. (1-4 h)

Course exploring current topics in chemistry. May be repeated for credit if course content differs. Does not count toward the major or minor in chemistry. P-POI.

## CHM 321. Intermediate Organic Chemistry. (3 h)

Survey of advanced topics in organic chemistry including stereochemistry, conformational analysis, reaction mechanisms, organometallic chemistry and asymmetric synthesis. P-CHM 223, CHM 223L, and CHM 280.

## CHM 324. Medicinal Chemistry I. (3 h)

An introduction to drug targets, mechanism, design, and synthesis. P-CHM 223, 370. (Offered Fall Only)

## CHM 324L. Medicinal Chemistry Laboratory. (1.5 h)

A lab designed to introduce the concept of structure-activity relationships (SAR) using computation, synthetic chemical, physiochemical, and biological techniques. P-CHM 223L. P or C-CHM 324.

## CHM 334. Chemical Analysis. (4 h)

Theoretical and practical applications of modern methods of chemical analysis. P-CHM 280L. C-CHM 334L. (Offered Fall Only)

## CHM 334L. Chemical Analysis Lab. (0 h)

Lab only. No credit. C-CHM 334.

## CHM 341. Physical Chemistry I. (3 h)

Fundamentals of thermodynamics and phenomenological kinetics, and introductory computational methods. Also offered in Salamanca. P-CHM 280, MST 112. P or C-PHY 114 or 124. (Offered Fall Only)

## CHM 341L. Physical Chemistry I Lab. (1 h)

P-CHM 280L. P or C-CHM 341, PHY 114 or 124.

## CHM 342. Physical Chemistry II. (3 h)

Fundamentals of quantum mechanics, statistical thermodynamics, and introductory computational methods. P-CHM 341, MST 112, and PHY 114 or 124. P or C-MST 113. (Offered Spring Only)

## CHM 342L. Physical Chemistry II Lab. (1 h)

P or C-CHM 342.

## CHM 351. Special Topics in Chemistry. (3 h)

Courses in selected special topics in chemistry. May be repeated for credit if course content differs. P- POI.

## CHM 361. Inorganic Chemistry. (3 h)

Principles and reactions of inorganic chemistry. P or C-CHM 280. C-CHM 361L. (Offered Spring only)

## CHM 361L. Inorganic Chemistry Lab. (1 h)

P-CHM 280L. C-CHM 361.

## CHM 362. Nanochemistry in Energy and Medicine. (3 h)

Advanced topics in nanomaterials science, photochemistry, energy conversion optoelectronics and biomedical photonics. P-CHM 280 and CHM 280L.

## CHM 364. Materials Chemistry. (3 h)

A survey of inorganic-, organic-, bio-, and nano-materials, including hybrid materials and applications. P-CHM 280 (Offered every other spring).

## CHM 364L. Materials Chemistry Lab. (1 h)

Synthesis of inorganic and organic based materials and their characterization. P-CHM 280L. P or C-CHM 364.

## CHM 366. Chemistry and Physics of Solid State Materials. (3 h)

Design, synthesis, structure, chemical and physical properties, and the application of solid state materials. P- CHM 280.

## CHM 370. Biochemistry I: Macromolecules and Metabolism. (3 h)

Introduces principles of biochemistry including structure, function, and biosynthesis of biological molecules, analysis of enzyme function and activity, bioenergetics, and regulation of metabolic pathways. Also listed as BIO 370 and BMB 370. P-any two of the following with associated labs: CHM 122 (or CHM 123), CHM 280 or BIO 214; or any two of the following: CHM 122 (or CHM 123), CHM 280, or BIO 265.



**CHM 370L. Biochemistry Lab. (1 h)**

Overview of biochemical approaches to study structure and function of macromolecules. Does not count towards the chemistry major with concentration in biochemistry. Also listed as BIO 370L. Credit allowed for CHM 370L/BIO 370L or CHM 371L/BIO 371L/BMB 371L, but not both. P or C-CHM 370/BIO 370/BMB 370.

**CHM 371L. Advanced Biochemistry Lab. (1.5 h)**

Emphasizes approaches for isolation and analysis of enzymes. Required for BMB major and the chemistry major with concentration in biochemistry. Recommended for research focused students. Also listed as BIO 371L and CHM 371L. Credit allowed for BIO 370L/CHM 370L, or BMB 371L/BIO 371L/CHM 371L, but not both. P or C-BMB 370/BIO 370/CHM 370.

**CHM 373. Biochemistry II. (3 h)**

Examines the structure, function, and synthesis of proteins and nucleic acids and includes advanced topics in biochemistry including catalytic mechanisms of enzymes and ribozymes, use of sequence and structure databases, and molecular basis of disease and drug action. Also listed as BMB 373. P-CHM 223 and BIO 370/BMB 370/CHM 370.

**CHM 376. Biophysical Chemistry. (3 h)**

Fundamentals of physical chemistry applied to biological molecules, including thermodynamics, kinetics, quantum mechanics, and spectroscopy. Emphasizes modern experimental approaches used to analyze biological systems. Also listed as BMB 376. P-CHM 280, BIO/BMB/CHM 370, PHY 114. P or C-MST 112.

**CHM 381. Chemistry Seminar and Literature. (0.5 h)**

Discussions of contemporary research and introduction to the chemical literature and acquisitions of chemical information. Pass/Fail only. P-CHM 122 or 123. (Offered Fall Only)

**CHM 390. Chemical Research Experience. (0, 1.5 h)**

Research experience and written report. Requires pre-approval of research project conducted off the Reynolda campus, by prearrangement. Pass/Fail only. May be repeated for credit.

**CHM 391. Undergraduate Research. (0.5-3 h)**

Undergraduate research and written report. Lab-3-16 hours. May be repeated for credit. P-POI. (Offered Fall Only)

**CHM 392. Undergraduate Research. (0.5-3 h)**

Undergraduate research and written report. Lab-3-16 hours. May be repeated for credit. P-POI. (Offered Spring Only)

**CHM 395. Senior Capstone. (0.5 h)**

Discussions of contemporary research and integration of chemical information with scientific dissemination. Pass/fail only. P or C-CHM 361. (Offered Spring Only)

## Chinese (CHI)

**CHI 101. First-year Chinese I. (4 h)**

Two-semester sequence designed to develop students' elementary Chinese communication skills in simple daily life contexts. Reading, writing, listening, and speaking are given equal weight, with emphasis on listening and speaking skills in class.

**CHI 102. First-year Chinese II. (4 h)**

Two-semester sequence designed to develop students' elementary Chinese communication skills in simple daily life contexts. Reading, writing, listening, and speaking are given equal weight, with emphasis on listening and speaking skills in class. P-CHI 101 or equivalent.

**CHI 153. Second-year Chinese I. (4 h)**

Two-semester sequence designed to develop students' Chinese communication skills in a wide range of daily life contexts, including some work scenarios. Students will gain a basic appreciation of cultural differences. P - CHI 102 or equivalent.

**CHI 201. Second-year Chinese II. (4 h)**

Two-semester sequence designed to develop students' Chinese communication skills in a wide range of daily life contexts, including some work scenarios. Students will gain a basic appreciation of cultural differences. P - CHI 153 or equivalent.

**CHI 220. Third-year Chinese I. (4 h)**

Two-semester sequence designed to enhance students' Chinese communication skills, with emphasis on accuracy and fluency on various topics at more abstract levels. Students will deepen their understanding of cultural differences. P - CHI 201.

**CHI 230. Third-year Chinese II. (4 h)**

Two-semester sequence designed to enhance students' Chinese communication skills, with emphasis on accuracy and fluency on various topics at more abstract levels. Students will deepen their understanding of cultural differences. P - CHI 220 or POI.

**CHI 231. Fourth-year Chinese. (3 h)**

Continuation of CHI 230, with emphasis on comprehending and producing more complex and sophisticated Chinese. Students will develop an advanced understanding of cultural differences. P - CHI 230 or POI.

**CHI 255. Business Chinese. (3 h)**

Communicating in Mandarin Chinese for business purposes. This course will prepare students to start a job search and build partnerships in Chinese-speaking areas, with emphasis on developing advanced intercultural communicative capability. P-CHI 230 or POI.

**CHI 291. Special Topics in Chinese. (3 h)**

Develops students' confidence and skills in handling topical issues in Chinese society and culture using authentic materials. Designed for students who have completed CHI 231 at Wake Forest and/or through study abroad. P-CHI 231 or POI.

**CHI 296. Chinese across the Curriculum. (1 h)**

Coursework in Chinese completed as an adjunct to specially-designated courses throughout the college curriculum. P-POI.

**CHI 299. Individual Study. (1-3 h)**

P-POI.

**CHI 351. Classical Chinese. (3 h)**

Vocabulary and syntax of the written Chinese language prior to the 20th century, including readings from the 4th century BC authors such as Mencius, along with writings from later centuries. P-POI.

## Classics (CLA)

**CLA 151. Ethics in Greece and Rome. (1.5 h)**

Reading and discussion of Aristotle's Ethics and Cicero's On Moral Duties, with attention to our own ethical dilemmas. A knowledge of the Greek and Latin languages is not required.

**CLA 252. Women, Gender, and Sexuality in Antiquity. (3 h)**

Exploration of women's roles in the ancient Mediterranean world and the intersections of gender, sexuality, and power in Greek and Roman society through the study of historical, archaeological, artistic, and literary sources, with a variety of theoretical and methodological approaches. A knowledge of the Greek and Latin languages is not required. (CD, D)

**CLA 255. Classical Epic: Iliad, Odyssey, Aeneid. (3 h)**

Study of the three principal epic poems from ancient Greece and Rome. A knowledge of the Greek and Latin languages is not required. (D)

**CLA 259. Vergil and His English Legacy. (3 h)**

Study of Vergil's "Eclogues," "Georgics," and selected passages of the "Aeneid," and their reception by English literature, using translations and original works by writers of the sixteenth through the eighteenth centuries, including Spenser, Marlowe, Milton, Dryden, and Pope. Knowledge of Latin is not required. (D)

**CLA 261. Greek Myth. (3 h)**

Consideration, principally through close study of selected literary works, of Greek myth from the Classical, Archaic, and Hellenistic periods, and in Roman literature; the course also will consider Greek myth's afterlife in the modern period. A knowledge of the Greek language is not required. (D)

**CLA 263. Greek Tragedy. (3 h)**

Study of the plays of Aeschylus, Sophocles, and Euripides. A knowledge of the Greek language is not required. (D)

**CLA 264. Greek & Roman Comedy. (3 h)**

Study of representative works of Aristophanes, Menander, Plautus, and Terence, with attention to the performance and audiences of comedy and to the differences among and within comic genres. A knowledge of the Greek and Latin languages is not required. (D)

**CLA 272. A Survey of Latin Literature (in English). (3 h)**

Study of selections from Latin literature in English translation. A knowledge of Latin language is not required. (D)

**CLA 280. Topics in the Ancient Mediterranean World. (3 h)**

Study of topics in the literary and material culture of the Greco-Roman World. (CD, D)

**CLA 281. Classics Beyond Whiteness. (1.5, 3 h)**

Studies misconceptions that ancient Greeks and Romans were white; race in Graeco-Roman societies; the role of Classics in modern racial politics; and non-white approaches to Classics. Considers race as social construct; white supremacy, fragility, and privilege; and critical-race-theoretical study of ancient cultures. (CD, D only with the 3-hour option)

**CLA 374. Special Topics. (1.5-3 h)**

Special topics in classical literature and culture. May be repeated for credit.

**CLA 375. The Age of Pericles. (3 h)**

Study of Greek culture in all its aspects during the 5th century. A knowledge of the Greek language is not required. (CD, D)

**CLA 376. The Age of Augustus. (3 h)**

Study of Roman culture in all its aspects during the early Empire. A knowledge of the Latin language is not required. (CD, D)

**CLA 381. Seminar in Classical Studies. (3 h)**

Offered by members of the faculty on topics of their choice. A knowledge of Greek and Latin languages is not required. May be repeated for credit. P-any previous course in Classics, Greek, or Latin, or POI.

**CLA 388. Individual Study. (1.5, 3 h)**

Course may be repeated for a total of 6 hours. P-POI.

**CLA 391. Honors in Classical Studies. (1.5 h)**

Directed research for the honors paper. P-POD.

**CLA 392. Honors in Classical Studies. (1.5 h)**

Directed research for the honors paper. P-POD.

## Communication (COM)

**COM 100. Introduction to Communication and Rhetoric. (1.5 h)**

An introduction to the discipline of Communication through an overview of related subfields, including their history, influential theories, and trends in research and practice. (D)

**COM 102. Debate and Advocacy. (3 h)**

The use of argumentative techniques in oral advocacy: research, speeches, and debate. (D)

**COM 110. Public Speaking. (3 h)**

A study of the theory and practice of public address. Lab experiences in the preparation, delivery, and critique of informative and persuasive speeches. (D)

**COM 113. Relational Communication. (3 h)**

Introduction to relational communication theory, research and principles. (D)

**COM 120. Introduction to Film and Media Aesthetics. (3 h)**

Introduction to the major theories and aesthetics of motion pictures and other media forms through a study of styles related to writing, directing, cinematography, editing, and sound. (D)

**COM 162. Introduction to Integrated Marketing Communications. (3 h)**

Provides a broad and basic understanding of the principles of integrated marketing communication in all its forms. The course is a foundational course for the ICS concentration for those wishing to pursue marketing communication as a career. Covers the building blocks of integrated marketing communication, the strategic use of such communication to reach a specific target across multiple media platforms, and the understanding of how to develop and shape messages to suit platform, purpose and audience.

**COM 215. Broadcast Journalism. (3 h)**

An introduction to the theory and practice of broadcast journalism. Topics will include ethics, technology, and the media as industry. Projects will address writing, producing, and performing for radio and television. Also listed as JOU 355.

**COM 220. Empirical Research in Communication. (3 h)**

An introduction to methodological design and univariate statistics as used in communication research. (QR)

**COM 225. Rhetorical Theory and Criticism. (3 h)**

Introduces students to rhetorical theory and criticism with a view to researching and composing a critical essay in the field.

**COM 230. Interactive Digital Media. (3 h)**

Theoretical and applied study of new digital technologies. Students produce a short-form interactive media project. Offered only in Salamanca.

**COM 245. Introduction to Mass Communication. (3 h)**

A historical survey of mass media and an examination of major contemporary media issues. (D)

**COM 247. Media Production I. (3 h)**

Students produce a variety of short-form media projects. P-COM 120.

**COM 250. Communication in Entrepreneurial Settings. (3 h)**

This course examines the contemporary workplace, including startup organizations, freelance work, and gig work. We examine how communication underpins organizational culture, teamwork, mentoring and networking, diversity programming, and more. Reading and discussion are balanced with opportunities to engage and apply tools for workplace success. Also listed as ENT 250.

**COM 262. Writing for Public Relations and Advertising. (3 h)**

Principles and techniques of public relations and applied advertising. Students use case studies to develop public relations and advertising strategies. Also listed as JOU 350. (D)

**COM 270. Special Seminar. (1-3 h)**

An examination of selected topics in communication.

**COM 280. Communication Internship I. (1.5-3 h)**

Individual communication internships to be approved, supervised, and evaluated by an appropriate faculty adviser. Pass/Fail only. P-POI.

**COM 282. Debate Practicum I. (1.5 h)**

Individual projects in debate to be approved, supervised and evaluated by an appropriate faculty adviser. Pass/Fail only. P-POI.

**COM 283. Debate Practicum II. (1.5 h)**

Individual projects in debate to be approved, supervised and evaluated by an appropriate faculty adviser. Pass/Fail only. P-POI.

**COM 284. Production Practicum I. (1.5 h)**

Individual projects or collaborations with appropriate professionals in media production to be approved, supervised, and evaluated by a faculty advisor. Pass/Fail only. P-POI.

**COM 285. Production Practicum II. (1.5 h)**

Individual projects or collaborations with appropriate professionals in media production to be approved, supervised, and evaluated by a faculty advisor. Pass/Fail only. P-POI.

**COM 286. Individual Study. (1-3 h)**

Directed study in an area of interest to be approved and supervised by a faculty adviser. P-POI.

**COM 287. Research Practicum I. (1.5 h)**

Credit opportunities for students to collaborate with faculty on research projects. Awards credit to students assisting faculty with research initiatives led by the faculty. Projects may be short term, culminating in presentation or publication, or longitudinal, where the student participates in an on-going effort. Pass/Fail only. P-POI.

**COM 288. Research Practicum II. (1.5 h)**

Credit opportunities for students to collaborate with faculty on research projects. Awards credit to students assisting faculty with research initiatives led by the faculty. Projects may be short term, culminating in presentation or publication, or longitudinal, where the student participates in an on-going effort. Pass/Fail only. P-POI.

**COM 300. Ancient Persuasions: Rhetoric and Democracy in Greece and Rome. (3 h)**

A study of major writings in Greek and Roman rhetorical theory from the Sophists to Augustine.

**COM 301. Film Genre. (3 h)**

Explores the conventions and variations of film and media genres such as Science Fiction, Horror, Western, Anime, Epic, Noir, and others (content variable). Explores the history of the content in an international context from the beginning of the genre to the present. Film Genre may be repeated for credit as long as the genre type is different.

**COM 302. Argumentation Theory. (3 h)**

An examination of argumentation theory and criticism; examines both theoretical issues and social practices.

**COM 305. Communication and Ethics. (3 h)**

A study of the role of communication in ethical controversies.

**COM 307. The Prophetic Mode in American Public Discourse. (3 h)**

Investigates prophetism as a rhetorical act by examining Biblical forms of prophetic speech and investigating how these forms influence American public discourse.

**COM 308. Speechwriting. (3 h)**

Examines representative historic and contemporary speechwriting, including composition and delivery of ceremonial, legal, and political speeches. Builds practical knowledge through delivery, discussion, and interviews with professional speechwriters.

**COM 309. Visual Storytelling. (3 h)**

The course overviews digital media as well as studying the meaning of how visual images are used in our society. The course is designed to look at the changing landscape of visual storytelling.

**COM 310. Media Production II. (3 h)**

Students produce advanced media projects over which they assume significant creative control. P-COM 247.

**COM 311. Narrative Production. (3 h)**

From script to screen, covers theory and practice of digital cinema production by creating short fiction films with emphasis placed on storytelling and collaboration. Working solo and in groups, students develop their storytelling skills and gain experience with conceptualization, project development, camerawork, sound recording, and editing. P-COM 247.

**COM 312. Film History to 1945. (3 h)**

A survey of the developments of motion pictures to 1945. Includes lectures, readings, reports, and screenings.

**COM 313. Film History Since 1945. (3 h)**

A survey of the development of motion pictures from 1946 to the present day. Includes lectures, readings, reports, and screenings.

**COM 314. Media Effects. (3 h)**

Theory and research on the influence and effects of mass media on audiences. These include reception, cognitive processing, and attitudinal and behavioral influences.

**COM 315. Communication and Technology. (3 h)**

An exploration of how communication technologies influence the social, political, and organizational practices of everyday life.

**COM 316. Screenwriting. (3 h)**

Introduction to the art and practice of writing for the screen. Through numerous exercises, students learn to use experiences, observations, and imagination to create compelling characters and stories for a variety of mediums and complete an original, short screenplay.

**COM 317. Communication and Popular Culture. (3 h)**

Explores the relationship between contemporary media and popular culture from a cultural studies perspective using examples from media texts.

**COM 318. Culture and Sitcom. (3 h)**

Explores the intersection of American culture and the television situation comedy, one of the oldest and most ubiquitous forms of television programming.

**COM 319. Media Ethics. (3 h)**

Examines historical and contemporary ethical issues in the media professions within the context of selected major ethical theories while covering, among other areas, issues relevant to: journalism, advertising, public relations, filmmaking, and media management.

**COM 320. Media Theory and Criticism. (3 h)**

Critical study of media including a survey of major theoretical frameworks. P-COM 120.

**COM 323. Superheroes, Cinema, and American Mythology. (3 h)**

Examines the emergence of superhero films in American cinema as a representation and response to historical and ideological contexts.

**COM 324. Children and Media. (3 h)**

Investigates theory and research in media and child development in order to explore how children and adolescents process and are affected by electronic media from television to new media.

**COM 325. On Camera Performance. (3 h)**

Introduces the theory and practice of performing for the camera. Covers basic camera, commercial work, how-to videos, newscasting, and other performance formats.

**COM 326. Advanced Screenwriting. (3 h)**

An advanced approach to narrative theory as well as examination of the role of the screenwriter in the motion picture industry, the influence of film genre on screenwriting, and the politics of nontraditional narrative structures. Students are expected to complete an original, feature-length screenplay. P-COM 316.

**COM 327. Social Media Effects. (3 h)**

Explores how we use, make sense of and are affected by social media both intrapersonally and interpersonally. Traditional media and information processing theories are explored; recent research on social media effects is discussed.

**COM 329. The Arab-Israeli-Palestinian Conflict as a Communication Phenomenon. (3 h)**

Explores the evolution of the Arab-Israeli-Palestinian conflict as a communication phenomenon; focusing on the narratives of the parties to the conflict as viewed through the lens of extant communication-grounded conflict theory.

**COM 330. Communication and Conflict. (3 h)**

A review of the various theoretical perspectives on conflict and negotiation as well as methods for managing relational conflict.

**COM 331. Communication and Terrorism. (3 h)**

Examines domestic and international terrorism as grounded in extant communication theory, with emphasis on explicating the role that communication plays in current conceptualizations and responses to terrorism.

**COM 332. Sports, Culture, and Society. (3 h)**

Examines how sport media coverage frames our understanding of society's biggest social issues, including race, gender, and human rights and challenges students to find their voices on these issues through participatory exercises and production projects.

**COM 333. Business of Sports Media. (3 h)**

Examines the intersection of media content, production and business practices, and examines how the digital revolution is changing the game for content creators, leagues and teams.

**COM 334. Narrative Approaches to Entrepreneurship. (3 h)**

This course uses narrative theory to examine how myths, stories, and other tropes form the basis on which we understand entrepreneurs and entrepreneurship. Attention is given to diverse and alternative stories and practices. Students will collect and analyze entrepreneur narratives.

**COM 335. Survey of Organizational Communication. (3 h)**

An overview of the role of communication in constituting and maintaining the pattern of activities that sustain the modern organization.

**COM 336. Organizational Rhetoric. (3 h)**

Explores the persuasive nature of organizational messages—dealing with risk, reputation, image, legitimacy and strategic communication—including those exchanged between organizational members and those presented in behalf of the organization as a whole.

**COM 337. Social Media Marketing in the Creative Arts. (3 h)**

Explores how social media is changing not just what content creators produce, but also how creators engage with their audience through the use of social media and marketing techniques.

**COM 338. African-American Rhetoric. (3 h)**

This course explores how African Americans have invented a public voice in the twentieth century. The course focuses on how artistic cultural expression, in particular, has shaped black public speech. (CD)

**COM 339. Practices of Citizenship. (3 h)**

Explores the history and theory of citizenship as a deliberative practice linked to the rhetorical tradition of communication with an emphasis on participatory and deliberative skills as part of the process in which communities are formed and citizens emerge as members.

**COM 340. Democracy, Slavery and Sex: Emancipation Discourse from the Founding to the Civil War. (3 h)**

Examines the influence of emancipation movements on American public discourse by reading and analyzing original speeches and documents with emphasis on abolition of slavery and woman's rights.

**COM 341. Class, Race, Sex and War: Emancipation Discourse from the Civil War to the Second Wave of Feminism. (3 h)**

Examines the influence of emancipation movements on American public discourse by reading and analyzing original speeches and documents. Among the movements addressed are labor, civil rights, student protest, and women's liberation.

**COM 342. Political Communication. (3 h)**

Study of electoral communication, including candidate and media influences on campaign speeches, debates, and advertising.

**COM 343. Presidential Rhetoric. (3 h)**

Examines theory and practice of speechmaking and mediated presidential communication.

**COM 344. Conspiracy Theories in American Public Discourse. (3 h)**

Study of the role of conspiracy discourse in American public discourse from the nation's founding through modern events.

**COM 345. Rhetoric of Science and Technology. (3 h)**

Examination of how scientific and technological discourses function rhetorically in public arenas to affect non-scientific publics' understanding.

**COM 346. Sport, Media, and Communication. (3 h)**

Examines the role of sport in society, cultural, and institutional practice. Surveys the value represented by interpersonal and mediated messages regarding key dimensions of sport including competition, ethics, gender, and race.

**COM 347. Rhetoric of the Law. (3 h)**

Examination of legal discourses including trial and appeal processes through motions to closing arguments.

**COM 348. Legal Theory, Practice, and Communication. (3 h)**

Introduces students to legal education, the legal system and legal analysis. (Co-taught by Law and Communication faculty - summer)

**COM 349. Advocacy, Debate and the Law. (3 h)**

Students develop and critique speeches, debates, trial practice and moot court across a variety of legal speaking venues. (Co-taught by Law and Communication Faculty - summer).



**COM 350. Intercultural Communication. (3 h)**

Introduction to the study of communication phenomena between individuals and groups with different cultural backgrounds. (CD)

**COM 351. Comparative Communication. (1.5, 3 h)**

A comparison of communicative and linguistic processes in one or more national cultures with those of the United States. Also listed as LIN 351 and INS 349. Credit not given for both COM 351A and INS 349. (CD)

**COM 351A. Comparative Communication: Japan. (1.5, 3 h)****COM 351B. Comparative Communication: Russia. (1.5, 3 h)****COM 351C. Comparative Communication: Great Britain. (1.5, 3 h)****COM 351D. Comparative Communications: Multiple Countries. (1.5, 3 h)****COM 351E. Comparative Communication: China. (1.5, 3 h)****COM 352. Interpersonal Seminar. (3 h)**

Advanced study of theories and research in one or more of the specialized concentrations of interpersonal communications.

**COM 353. Persuasion. (3 h)**

An examination of theories and research concerning the process of social influence in contemporary society.

**COM 354. International Communication. (3 h)**

An in-depth look at the role of mass media in shaping communication between and about cultures using examples from traditional and emerging media systems. (CD)

**COM 355. Survey of Health Communication. (3 h)**

An examination of theories, research, and processes of health communication in contemporary society.

**COM 356. Health Communication: Patient-Provider. (3 h)**

Explores contemporary issues related to communication in health care contexts, notably theories and research on patient-provider communication.

**COM 357. Health Communication and Bioethics. (3 h)**

Examination of the principles behind designing, implementing, and evaluation a health campaign, including message design and application of media theories for behavior change.

**COM 358. Health Communication and Bioethics. (3 h)**

Examination of the principles behind designing, implementing, and evaluating a health campaign, including message design and application of media theories for behavior change.

**COM 360. Communication and Cultures of India: Immersed in India. (3 h)**

Examines the different patterns of communication of the people of India through an immersive experience, a journey from the Himalayas to the oceans, studying the connections between the geography, history, and cultures of India.

**COM 361. Family Communication and Health across the Lifespan. (3 h)**

Investigates how family communication intersects with physical, psychological, and social health across the lifespan.

**COM 362. Advanced Campaigns. (3 h)**

Creation of fully integrated communication campaigns for major brands, from uncovering target audience insights to articulating brand strategy and key messaging, through development of the big campaign idea and activation plans for the market. Culminates with team presentation pitches to their "client" and is designed for Communication majors who have demonstrated interest in pursuing careers in marketing communication. P-COM 262 or JOU 350.

**COM 363. Communication and Consumer Behavior. (3 h)**

Focuses on understanding the psychology of consumer purchasing behavior and how marketing communications can influence that. Examines consumer motivations, influences, decision-making processes, and behaviors as they relate to the development of a marketing communications strategy. P-COM 162.

**COM 364. Narrative, Communication, and Health. (3 h)**

Combines theory and research in social science with narrative in multiple forms: film, visual art, memoir, short story, and poetry. Explores the power of story to transform human lives with an emphasis on health. Asks: What is narrative? How does narrative shape who we are? How does narrative inform our understanding and experience of wellness and illness? How does narrative influence health communication in our personal relationships? What role can narrative play in medical education, medical practice, and public health campaigns? Through careful study and reflection, students discover how story can create positive change on a personal, professional, and societal level.

**COM 365. Imagination Project. (3 h)**

The production of short films, digital study guides, or E-books and/or other types of multimedia materials on important social, political, cultural and economic issues. Opportunities for students to immerse themselves in a topic and interact with scholars from various disciplines (topics vary each year).

**COM 370. Special Topics. (1-3 h)**

An examination of topics not covered in the regular curriculum.

**COM 380. Great Teachers. (1-3 h)**

An intensive study of the ideas of three noted scholars and teachers in the field of communication. Students will interact with each teacher during a two- to three-day visit to Wake Forest.

## Computer Science (CSC)

**CSC 101. Overview of Computer Science. (3 h)**

An introduction to fundamental principles of computer science including abstraction, data and information, the World Wide Web, algorithms, programs, creative computer use, and the global impact of computing. Students cultivate their understanding by working with data, logically solving problems individually and collaboratively, and writing simple computer programs. May not be counted towards the computer science major or minor. (D)

**CSC 102. Problem Solving with Python. (3 h)**

An introduction to fundamental principles of computer science including abstraction, data and information, algorithm development, and computer programming. Students apply computational problem solving skills to representative problems from a range of domains using the Python programming language. Appropriate for students who want computing experience applicable to other disciplines. May not be counted towards the computer science major or minor. (D)

**CSC 111. Introduction to Computer Science. (4 h)**

Introduction to computer programming and algorithmic problem solving in an object-oriented programming language. Topics include basic control structures, methods, parameters, objects, classes, arrays, and program testing and debugging. Recommended as the first course for students considering a major or minor in computer science. (D)



**CSC 112. Fundamentals of Computer Science. (4 h)**

A study of algorithm development and problem solving using top-down design, data abstraction, object-oriented programming, and program debugging and testing. Topics include memory allocation, recursion, data structures such as arrays, lists, stacks, queues, and trees, simple sorting and searching algorithms, and algorithm complexity. P-CSC 111 or POI. (D)

**CSC 165. Problem Solving Seminar. (1 h)**

A weekly seminar designed for students to develop their problem solving skills designing and implementing software. Does not count towards the computer science major or minor. May be taken twice. Pass/Fail. P-CSC 112 or POI.

**CSC 191. Special Topics. (1-3 h)**

Topics in computer science that are not covered in regular courses or that give special practice in skills used in other courses. Not to be counted toward the bachelor of science in computer science. May be repeated for up to 6 hours if the topic changes.

**CSC 192. STEM Incubator. (1 h)**

An engaging and relevant introduction to STEM (science, technology, engineering, and mathematics) through creative exploration, collaboration, and computational problem-solving. Pass/Fail. May be repeated once.

**CSC 192H. Honors STEM Incubator. (1 h)**

Leadership role in developing STEM (science, technology, engineering, and mathematics) ideas and applications through scientific exploration, creative collaboration, and computational problem-solving. For students with some programming experience. Pass/Fail. May be repeated once. P - POI.

**CSC 193. Independent Study. (1-3 h)**

A course of independent study directed by a faculty adviser, not to be counted toward the bachelor of science in computer science. May be repeated for up to 3 hours. Enrollment requires prearrangement with a computer science faculty member and departmental approval P-POI.

**CSC 201. Data Structures and Algorithms. (3 h)**

A study of fundamental data structures and the algorithms that act upon them. Data structure topics include the application, implementation, and complexity analysis of trees, hash tables, heaps, maps, sets, and graphs. Algorithmic topics include advanced sorting and searching methods and an introduction to divide-and-conquer and greedy techniques, graph algorithms, backtracking, and dynamic programming. P-CSC 112 and MST 117. (D)

**CSC 211. Computer Organization. (4 h)**

Lecture and laboratory. Computer organization from the perspective of instructions, including the central processor, busses, input and output units, and memory units. A weekly two-hour laboratory covers combinational logic, loaders and linkers, assembly language, address computation, and other architecture-related functions. Lab-2 hours. P-CSC 111. (D)

**CSC 221. Data Structures and Algorithms I. (3 h)**

Analysis, implementation, and application of abstract data structures such as lists, stacks, queues, trees, hash tables, heaps, and graphs. Complexity analysis of algorithms that operate upon these structures. P-CSC 112. P or C-MST 117. (D)

**CSC 222. Data Structures and Algorithms II. (3 h)**

Study of algorithms, algorithm design strategies, and the derivation of time complexity bounds. Case studies illustrate greedy algorithms, divide and conquer, backtracking, and dynamic programming techniques. An introduction to the classes P, NP, NP-complete, and Turing decidability is included. P-CSC 221 and MST 111 or 112. (QR)

**CSC 231. Programming Languages. (3 h)**

Comparative study of programming language paradigms, including imperative languages, functional programming, logic programming, and object-oriented programming. Syntax, semantics, parsing, grammars, and issues in language design are covered. P-CSC 112 and MST 117.

**CSC 241. Computer Systems. (4 h)**

Lecture and laboratory. Introduction to concepts of operating systems and networks including processor and memory management, concurrency, and protocol independent data communications. Lab-2 hours. P-CSC 112 and MST 117.

**CSC 250. Computer Systems I. (4 h)**

Study of computer system mechanisms supporting program execution, with a focus on mapping programs to underlying hardware. Topics include data representation, assembly language, processor architecture, and the memory system, with an introduction to system-level programming. P-CSC 112 and MST 117. (D)

**CSC 251. Computer Systems II. (3 h)**

Study of computer system mechanisms supporting program execution, with a focus on process and resource management. Topics include process control, virtual memory, concurrency, parallelism, file-based and network-based I/O, and additional coverage of system-level programming. P-CSC 250.

**CSC 301. Algorithm Design and Analysis. (3 h)**

A study of techniques for designing algorithms, analyzing their time and space complexity, and demonstrating their correctness. The algorithm design techniques include divide-and-conquer, greedy algorithms, dynamic programming, randomized algorithms, string processing algorithms, and parallel algorithms. The algorithm analysis includes computational models, best/average/worst case analysis, and computational complexity (including lower bounds and NP-completeness). P-CSC 201 and MST 112. (QR)

**CSC 311. Computer Architecture. (3 h)**

An in-depth study of computer system and architecture design. Topics include processor design, memory hierarchy, external storage devices, interface design, and parallel architectures. P-CSC 211 or 250.

**CSC 321. Database Management Systems. (3 h)**

Introduction to database management systems. Topics include data independence, database models, query languages, security, integrity, and transactions. P-CSC 201 or 221.

**CSC 322. Data Management and Analytics. (3 h)**

Management, analysis, and visualization of large-scale data sets. Topics includes key-value databases, distributed file systems, map-reduce techniques, similarity measures, link analysis, and clustering. P - CSC 321.

**CSC 331. Software Engineering. (3 h)**

Study of fundamental topics in software engineering including software processes, agile software development and project management, requirements engineering, system modeling, design patterns and implementation, and software testing. Students practice software engineering principles through team projects. P-CSC 201 or 221.

**CSC 332. Mobile and Pervasive Computing. (3 h)**

Study of the fundamental design concepts and software principles underlying mobile and pervasive computing, including mobile interface design, data management, mobile networks, location aware computing, and mobile security. Involves significant programming on modern mobile platforms. P-CSC 201 or 221.

**CSC 333. Principles of Translators for Compilers and Interpreters. (3 h)**

Study of techniques for translating high-level programming languages to a target language. Typical target languages include Java bytecode and assembly language. Topics include lexical analysis, parsing, intermediate representations, language semantics, code generation, and optimization. P-CSC 231 and either CSC 211 or 250.

**CSC 341. Operating Systems. (3 h)**

Study of the different modules that compose a modern operating system. In-depth study of concurrency, processor management, memory management, file management, and security. P-CSC 241 or 251.

**CSC 343. Internet Protocols. (3 h)**

Study of wide area connectivity through interconnection networks. Emphasis is placed on Internet architecture and protocols. Topics include addressing, routing, multicasting, quality of service, and network security. P-CSC 241 or 251.

**CSC 346. Parallel Computation. (3 h)**

Study of techniques for parallel and high performance computing. Topics include an overview of modern high-performance computer design, pipelining, concurrency, data dependency, shared memory, message passing, and graphics processors. Select parallel algorithms and methods for asymptotic scalability analysis are also presented. Assignments may include coding with OpenMP, MPI, and the CUDA library. P-CSC 201 or 221.

**CSC 347. GPU Programming. (3 h)**

An introduction to general purpose parallel program development on Graphics Processing Units (GPUs). Topics covered will include data parallelism, memory and data locality, parallel algorithm patterns and performance metrics, and application test studies. P-CSC 201 or 221 and MST 121 or 205.

**CSC 348. Computer Security. (3 h)**

Introduction to computer security concepts and associated theory. Detailed coverage of the core concepts of access control, cryptography, trusted computing bases, digital signatures, authentication, network security, and secure architectures. Legal issues, security policies, risk management, certification and accreditation are covered in their supporting roles. Students will learn to analyze, design, and build secure systems of moderate complexity. P-CSC 241 or 251.

**CSC 352. Numerical Linear Algebra. (3 h)**

Numerical methods for solving matrix and related problems in science and engineering using a high-level matrix-oriented language such as MATLAB. Topics include systems of linear equations, least squares methods, and eigenvalue computations. Special emphasis given to applications. Also listed as MST 326. P-MST 112; and MST 121 or 205. (D)

**CSC 355. Introduction to Numerical Methods. (3 h)**

Numerical computations on modern computer architectures; floating-point arithmetic and round-off error. Programming in a scientific/engineering language such as MATLAB, C, or FORTRAN. Algorithms and computer techniques for the solution of problems such as roots of functions, approximation, integration, systems of linear equations, and least squares methods. Also listed as MST 355. P-MST 112; and MST 121 or 205. (D)

**CSC 361. Digital Media. (3 h)**

Study of the mathematics and algorithms underlying digital sounds, image, and video manipulation. Topics may include sampling and quantization, resolution, filters, transforms, data encoding and compression, multimedia file types and transmission, 3D printing, and digital media in multimedia and web programming. P-CSC 201 or 221 and MST 111 or 112.

**CSC 363. Computer Graphics. (3 h)**

Study of software and hardware techniques in computer graphics. Topics include line and polygon drawing, hidden line and surface techniques, transformations, and ray tracing. P-CSC 201 or 221; and either MST 121 or 205.

**CSC 365. Image Processing Fundamentals. (3 h)**

Study of the basic theory and algorithms for image enhancement, restoration, segmentation, and analysis. P-CSC 112; and MST 121 or 205.

**CSC 371. Artificial Intelligence. (3 h)**

An overview of areas of study in artificial intelligence. Topics are chosen from among knowledge representation, formal logic, fuzzy logic, intelligent agents, expert systems, machine learning, robotics, and natural language processing. P-CSC 201 or 221.

**CSC 373. Data Mining. (3 h)**

An overview of data mining methods and algorithms for classification, association analysis, clustering, and anomaly detection. A major focus will be on the implementation of algorithms for and design and construction of solutions to data mining problems. Applications and ethical considerations of data mining in humanities, arts, and healthcare are discussed. P-CSC 201 or 221.

**CSC 374. Machine Learning. (3 h)**

An introduction to concepts and application of machine learning algorithms and techniques, focusing on supervised and unsupervised learning. Students learn the theoretical concepts behind several types of machine learning algorithms and gain practical experience applying them. Algorithms covered could include logistic regression, support vector machines, regularization, dimensional reduction, clustering, and neural networks. P-CSC 201 or 221, MST 112 and MST 121 or 205.

**CSC 375. Neural Networks and Deep Learning. (3 h)**

An introduction to concepts and applications of neural networks and deep learning, a branch of machine learning that uses additional layers of high-level representations of data to maximize performance on a given task. The topics covered may include basic neural networks, deep neural networks, and convolutional and recurrent neural networks. Students learn the theoretical concepts behind several types of neural network algorithms and gain practical experience applying them. P-CSC 201 or 221, MST 112, and MST 121 or 205.

**CSC 385. Bioinformatics. (3 h)**

Introduction to computational approaches essential to modern biological inquiry. Approaches may include large biological dataset analyses, sequence similarity and motif searches, and analysis of high-throughput genomic technologies. Emphasizes interdisciplinary interaction and communication. Also listed as BIO 385 and PHY 385. P-CSC 201 or 221 (and BIO 150, 150L, 160, and 160L if taken as BIO 385) or POI.

**CSC 387. Computational Systems Biology. (3 h)**

Introduction of concepts and development of skills for comprehension of systems biology problems, including both biological and computational aspects. Topics may include genome-wide transcriptomic analysis, protein interaction networks, large-scale proteomics experiments, and computational approaches for modeling, storing, and analyzing the resulting data sets. Emphasizes interdisciplinary interaction and communication. Also listed as BIO 387. P-CSC 201 or 221 (also requires BIO 150, 150L, 160, and 160L if taken as BIO 387) or POI.

**CSC 391. Selected Topics. (1-3 h)**

Topics in computer science that are not studied in regular courses or which further examine topics covered in regular courses. May be repeated if topic changes. P - any 200-level CSC course and POI.

**CSC 393. Individual Study. (1-3 h)**

Independent study directed by a faculty adviser. By prearrangement. No more than three hours may be counted toward a computer science major or minor. Enrollment requires prearrangement with a computer science faculty member and departmental approval. P-any 200-level CSC course and POI.

**CSC 399. Computer Science Mastery Exam. (0 h)**

Evaluation of student mastery of core topics in the computer science discipline through standardized testing. Taken during the senior year. Pass/Fail.

## Counseling (CNS)

**CNS 334. Ethics in Health and Human Services. (3 h)**

Investigation of the ethical parameters of health and human services work. Topics include least restrictive interventions, privacy, human dignity and compassionate service. NOHS standards will be studied.

**CNS 335. Health and Human Services in a Diverse Society. (3 h)**

Covers the range and characteristics of health and human services systems and organization, the populations served and their needs and the models for prevention, maintenance, intervention, rehabilitation and healthy functioning. (CD)

**CNS 337. Skills in Human Services. (3 h)**

Introduction to communication skills of listening, reflecting, questioning, and problem-solving. These skills will be examined and practiced using role play and simulations.

**CNS 340. Professional Orientation to Health and Human Services. (3 h)**

Provides an overview of health and human services including history, roles, organizational structures, ethics, standards, specializations, and credentialing. Public policy processes and contemporary issues are also considered.

**CNS 342. Group Procedures. (3 h)**

A conceptual exploration of the psychological dynamics and interpersonal communication of teams and systems including structure, leadership models, process and practice, stages of development, techniques, and ethical principles.

**CNS 350. Wellness and Prevention. (3 h)**

An investigation of holistic approaches to wellness and prevention; frameworks for increasing positive well-being through empirically supported, strength-based concepts.; levels of prevention across applied health and human services settings.

**CNS 352. Addiction. (3 h)**

An exploration of the causes of addiction and pathways to recovery. Medical aspects of addiction and the impact of addiction on the brain and body, theories and models of addiction and recovery, and diagnosis and treatment of persons with substance abuse and co-occurring disorders are considered.

**CNS 353. College Student Development. (2 h)**

A course of study for resident advisors that provides the skills and knowledge necessary to work successfully with college students in a residence environment. Includes student development theory, coping with behavior problems, crisis management, mediating conflict, and other issues.

**CNS 364. Creative Arts in Counseling. (3 h)**

Examines the history, theories, processes and techniques of using the creative arts in counseling with clients throughout the lifespan. Attention is given to the visual and performing arts such as drawing, imagery, photography, cartooning, cinema, movement, dance, literature, drama and music. Juniors and Seniors only.

**CNS 396. Independent Study. (1-3 h)**

Independent study with faculty guidance. May be repeated for up to 6 credit hours. By prearrangement.

## Creative Writing (CRW)

**CRW 100. Introduction to Creative Writing. (3 h)**

This workshop explores the fundamentals of writing poetry, fiction, and creative nonfiction. Students analyze the forms of each genre with an eye toward creating literary texts of their own. Through workshops and class discussions, students also learn how to revise their own writing and offer feedback on the work of classmates.

**CRW 285. Poetry Workshop. (1.5, 3 h)**

Craft course in the writing of poetry with an emphasis on developing, reading, and discussing student poems in a supportive classroom community. Study of poetic techniques, forms, and revision as well as the works of historical and/or contemporary poets.

**CRW 286. Short Story Workshop. (1.5, 3 h)**

Study of fundamental principles of short fiction writing; practice in writing; extensive study of short story form.

**CRW 287. Literary Nonfiction Workshop. (3 h)**

Study of the fundamental principles of literary nonfiction, with a focus on subgenres, techniques, and the works of important literary nonfiction writers.

**CRW 300. Topics in Creative Writing. (3 h)**

Workshop centering on theme instead of genre. Students study creative writing through the lens of ideas such as hybridity, ecology, and the visual. Through analyzing important texts, workshops, and class discussions, students hone their skills in fiction, poetry, and/or literary nonfiction, as well as improve their abilities to revise and offer feedback on classmates' work. May be repeated with permission. P-a CRW 100- or 200-level course or POI.

**CRW 384. Playwriting. (3 h)**

Examines the elements of dramatic structure and their representations in a variety of dramatic writings. Explores the fundamentals of playwriting through a series of writing exercises. Also listed as THE 360.

**CRW 385. Advanced Poetry Workshop. (3 h)**

Emphasis on reading and discussing student poems in terms of craftsmanship and general principles. May be repeated once. P-a CRW 100 or 200 course or POI.

**CRW 386. Advanced Fiction Writing. (3 h)**

Primarily a short-story workshop, with class discussion on issues of craft, revision, and selected published stories. May be repeated once. P-a CRW 100- or 200-level course or POI.

**CRW 387. Advanced Literary Nonfiction Workshop. (3 h)**

Emphasis on the theory and craft of creative nonfiction as well as on contemporary writers of creative nonfiction. May be repeated once. P-a CRW 100- or 200-level course or POI.

## Dance (DCE)

**DCE 101. Beginning Tap Dance. (2 h)**

Fundamentals of tap dance technique with an emphasis placed on technique, rhythm, vocabulary, and performance qualities. May be taken two times for credit.

**DCE 120. Beginning Modern Dance Technique. (2 h)**

Fundamentals of modern dance technique, with an emphasis placed on movement concepts, vocabulary, technique, alignment, placement, and flexibility. May be taken two times for credit.

**DCE 122. Special Topics in Dance. (1-3 h)**

An intensive study of selected topics in dance. May be repeated.

**DCE 123. Introduction to Dance Composition. (2 h)**

Introduction to the fundamental study of improvisation, composition and choreography. P-DCE 221, 226, or DCE 227; or POI.

**DCE 124. Social Dance. (1.5 h)**

Fundamental techniques of social dance, providing basic skills, concepts of movement, style and fundamental step patterns found in social dance rhythms. Students will learn basic smooth dances, rhythm dances, Latin-American dances and Cuban dances.

**DCE 125. Folk and Social Dance. (1.5 h)**

Fundamentals of folk and social dance, providing the basic skills, concepts of movement, style and fundamental step patterns of folk and social dance. Emphasis is on the development of fundamental dance skills and practice in utilizing dance techniques.

**DCE 126. Beginning Jazz Dance. (2 h)**

Fundamentals of jazz technique with an emphasis on alignment, isolations, flexibility, basic turns, jumps, and combinations. May be taken two times for credit.

**DCE 127. Beginning Classical Ballet Techniques. (2 h)**

Fundamentals of classical ballet technique with an emphasis on alignment, placement, flexibility, barre work, adagio and petite allegro. May be taken two times for credit and two times Pass/Fail.

**DCE 128. Dance Performance. (1 h)**

Practical experience in the areas of rehearsal, production, and performance, as a performer in the Fall or Spring Dance Concert. May be taken up to four times for credit.

**DCE 129. Choreography. (1 h)**

Practical experience in the areas of rehearsal, choreography production and performance as a choreographer in the Spring Dance Concert. May be taken only once.

**DCE 130. Movement for All. (1.5 h)**

A beginning level dance class for all students that surveys jazz, modern and/or ballet techniques. Emphasis on flexibility, coordination, and efficiency of movement. Eight week course.

**DCE 131. African Dance. (1.5 h)**

Designed to develop basic West African dance technique, build students' musicality and performance skills and create an awareness of African culture. May be taken 2 times for credit.

**DCE 133. Hip Hop Dance. (1.5 h)**

Fundamentals of Hip Hop dance technique. May be taken 2 times for credit.

**DCE 150. Design and Production for Dance. (2 h)**

Introduction to the fundamentals of lighting, sound editing, dance floor installation, costumes and stage management for dance performance. Credit not allowed for both DCE 150 and THE 150. P-POI.

**DCE 200. Senior Dance Project. (2 h)**

An investigation of selected semi-professional problems involving the creative process of choreography, study of notation, research idea, or production.

**DCE 201. Intermediate Tap Dance. (2 h)**

A progressive development of technique and vocabulary from DCE 101, with an emphasis on exploring rhythm, dynamics and performance qualities. May be taken four times for credit. P-DCE 101 or POI.

**DCE 202. History of Dance. (3 h)**

A survey of the development of dance as a performing art from the Renaissance to the present with an emphasis on scope, style and function. (D)

**DCE 203. 20th-Century Modern Dance History. (3 h)**

Exploration of the history of modern dance from Isadora Duncan to contemporary modern dance trends in the U.S. and abroad. (D)

**DCE 205. Improvisation. (2 h)**

An investigation of the art and technique of improvised dancing. The course borrows from visual art, poetry, literature, theatre, and music as catalysts for original movement generation. P-DCE 120 or 221.

**DCE 221. Intermediate Modern Dance Technique. (2 h)**

A progressive development of movement concepts and vocabulary from DCE 120, with an emphasis on exploring both the classical and contemporary techniques of modern dance. May be taken four times for credit. P-DCE 120 or POI.

**DCE 222. Advanced Modern Dance Technique. (2 h)**

A progressive development of the concepts of DCE 221 with an emphasis on qualitative performance, virtuosity and versatility in a variety of technical forms within the modern dance discipline. May be taken four times for credit. P-DCE 221 or POI.

**DCE 223. Dance Composition. (3 h)**

Fundamental study of improvisation, composition, and choreography. P - DCE 221, 226, 229, or POI.

**DCE 224. Advanced Social Dance. (1.5 h)**

Progressive development of technique in rhythm, dance hold, footwork and patterns of ballroom and Latin dance. Emphasis on performance and competitive dance styles. May be taken two times for credit. P-DCE 124 or POI.

**DCE 226. Intermediate Jazz Dance. (2 h)**

This course pursues the mastery of basic jazz technique along with more complex center floor combinations. Emphasis is placed on performance qualities and musicality. May be taken four times for credit. P-DCE 126 or POI.



**DCE 227. Advanced Jazz Dance. (2 h)**

Pursues the mastery of jazz technique along with more complex center floor combinations. Emphasis is placed on performance qualities, musicality, technique, virtuosity, and creativity. May be taken four times for credit. P-DCE 226 or POI.

**DCE 229. Intermediate Classical Ballet. (2 h)**

Pursues the mastery of basic ballet technique along with more complex barre and center combinations, performance qualities, and musicality. May be taken four times for credit. P-POI.

**DCE 231. Advanced Classical Ballet. (3 h)**

Continues the mastery of basic ballet technique along with more complex barre and center combinations, performance qualities, musicality and pointe work. May be taken four times for credit. P-POI.

**DCE 233. Advanced Studio Classical Ballet. (3 h)**

Professional level pace of ballet technique. Complex barre and center combinations as well as more advanced pointe work in class. May be taken 4 times for credit. P-POI.

**DCE 235. Ballet Repertory. (2 h)**

An intermediate and advanced level technique class focusing on the development and performance of classical and contemporary ballet repertoires. May be repeated 4 times for credit. P-DCE 229 or POI.

**DCE 236. Multi-Ethnic Dance. (3 h)**

Exploration of the cultural importance of dance in major ethnic groups in American society. Also listed as AES 236. (CD)

**DCE 241. Advanced Tap Dance. (2 h)**

A progressive development of the concepts of DCE 201 with an emphasis on qualitative performance, virtuosity and versatility in a variety of technical forms within the tap dance discipline. May be taken four times for credit. P-DCE 201 or POI.

**DCE 285. Internship in Dance. (1-3 h)**

Internship, approved by the department, to be carried out under the supervision of a departmental faculty member, designed to meet the proposing student's needs and interests related to their study of dance. Requirements may include an evaluative paper and public presentation. Normally one course in an appropriate sub-filed is taken prior to the internship. P-POI.

**DCE 294. Individual Study. (1-3 h)**

Research and readings in an area of interest to be approved and supervised by a faculty adviser. May be taken for a total of not more than 3 hours. P-POI.

## E. Asian Languages and Culture (EAL)

**EAL 219. Major Works of Japanese Literature I. (3 h)**

A study of major works of Japanese literature, this course examines epic and lyric poetry, novels, drama, travelogues, and satirical pieces chosen both for their central place in the canon and for their insights into Japanese history and culture. (CD, D)

**EAL 220. Major Works of Japanese Literature II. (3 h)**

A study of major works of Japanese literature, this course examines novels, drama, modernity and modernization, and literary movements and genres chosen both for their central place in the canon and for their insights into Japanese history and culture. (CD, D)

**EAL 221. Themes in Chinese Literature I. (3 h)**

Examines selected themes in Chinese fiction, drama, and poetry with an emphasis on the modern and early modern periods. (CD, D)

**EAL 222. Themes in Chinese Literature II. (3 h)**

Examines selected themes in Chinese fiction, drama, and poetry with an emphasis on the early modern and pre-modern periods. (CD, D)

**EAL 223. Traditional Chinese Literature. (3 h)**

Surveys the history of the traditional Chinese fictional narrative across a variety of genres and forms such as the classical anecdote, folktale, vernacular story, dramas, and novel. (CD, D)

**EAL 231. Early 20th-century Chinese Modernism. (3 h)**

An interdisciplinary exploration of Chinese modernist experiments in literature, art, architecture, and graphic design in the first half of the 20th century. (CD)

**EAL 241. Gender in Japanese Literature. (3 h)**

A study of the changing aesthetics and ideologies of gender and sexuality in Japanese literature with a focus on modern fiction and poetry. (CD)

**EAL 252. Chinese Cinemas. (3 h)**

Provides a thorough examination of Chinese cinemas from mainland China, Hong Kong, and Taiwan, paying special attention to films' aesthetic responses to historical catastrophe, political upheaval, and social transformation. Examining film's concerns with the narration of history raises further questions regarding national and cultural identity, popular culture and cinematic form, gender and sexuality, exile and diaspora, and revolutionary aesthetics. (CD)

**EAL 253. Japanese Film: Themes and Methods. (3 h)**

Explores themes, artistic visions, and techniques in a variety of film genres, from historical dramas to contemporary comedies and from realism to fantasy and science fiction. Special focus is given to the films' historical and political context. (CD)

**EAL 270. Contemporary Japanese Culture. (3 h)**

Selected topics in Japanese literature, pop culture, film, animation, and other forms. May be repeated for credit when topic differs. (CD)

**EAL 271. Mass Culture in Modern China. (3 h)**

Inquiry into the critical concept of mass and popular culture by looking at newspapers, visual culture, fiction, film, television, music, and the internet, and tracing their sociopolitical, aesthetic impacts on modern China. (CD)

**EAL 272. Fiction and Film from Hong Kong, Taiwan, and Beyond. (3 h)**

Exploration of the development of Chinese-language fiction and film from Hong Kong, Taiwan, Malaysia, the U.S., and more. Special attention to the specific cultural, political, historical, and aesthetic contexts of these works and their expression of Chinese identity. (CD)

**EAL 273. Kung Fu China: Culture, Narrative, Globalization. (3 h)**

Survey of Chinese martial arts narratives in fiction, film, and visual cultures from ancient origins to the present day. Explores the forces of physical combat alongside issues such as philosophy, politics, gender, technology, and globalization.

**EAL 275. Survey of East Asian Cultures. (3 h)**

Explores the cultural traditions of China, Japan and Korean in their historical, regional and global contexts. (CD)

**EAL 279. Korean Cinema: History, Gender, and Genre. (3 h)**

Examines the history of Korean film and its political, historical, and aesthetic contexts. Pays special attention to the issues of gender, memory, technology, and the globalization of contemporary Korean popular culture.



**EAL 285. Contemporary East Asian Cinema. (3 h)**

Examination of the cinematic landscape of contemporary East Asia. Focus on recent works from amateur directors, genre film, and blockbusters. (CD)

**EAL 290. Special Topics. (3 h)**

Selected themes and approaches to East Asian literature, drama, culture, and film. Specific topics decided by faculty prior to the term the course is offered. May be repeated for credit. P-POI.

**EAL 299. Individual Study. (1-3 h)**

P-POI.

**EAL 303. Field Research Preparation. (1 h)**

Development of target language (Chinese or Japanese) field research materials and preparation for field research practicum in China, Japan, or Taiwan. P-POI.

**EAL 304. Field Research Practicum. (2 h)**

Use of target language research materials in field research project in China, Japan, or Taiwan to investigate aspects of culture and belief systems and to apply specific disciplinary frameworks. Not offered at the Wake Forest campus. P-POI.

**EAL 375. Senior Research Seminar. (3 h)**

A critical, theoretical, and practical foundation for developing students' capstone research projects.

**EAL 376. Honors Thesis. (3 h)**

Directed research for the honors thesis. P-EAL 375 and POI.

## E. Asian Studies (EAS)

**EAS 311. Special Topics in East Asian Studies. (1-3 h)**

An intensive survey of one or more important issues in East Asian studies not included in the regular course offerings. P-POI.

**EAS 381. Independent Research in East Asian Studies. (1-3 h)**

Supervised independent research project on a topic related to East Asia. May be repeated for credit. P-Permission of both instructor and coordinator of East Asian Studies.

## Economics (ECN)

**ECN 150. Introduction to Economics. (3 h)**

A survey of micro and macroeconomic principles. Introduction to basic concepts, characteristic data and trends, and some analytic techniques. (D)

**ECN 205. Intermediate Microeconomics I. (3 h)**

Development of demand and supply analysis, neoclassical theory of household and firm behavior, and alternative market structures. P-ECN 150 and MST 111 or 112. (D)

**ECN 207. Intermediate Macroeconomics. (3 h)**

Development of macroeconomic concepts of national income, circular flow, income determination, causes of unemployment, IS-LM analysis, inflation, and growth models. Emphasizes contributions of Keynes and the Keynesian tradition. P-ECN 150 and MST 111 or 112. (D)

**ECN 209. Applied Econometrics. (3 h)**

An introduction to regression analysis methods used to estimate and test relationships among economic variables. Selected applications from microeconomics and macroeconomics are studied. Emphasis is on examining economic data, identifying when particular methods are appropriate and interpreting statistical results. P-ECN 150 and STA 111, (or similar course, including ANT 380; BIO 380; BEM 201; HES 262; SOC 271, or STA 311). (D, QR)

**ECN 210. Intermediate Mathematical Microeconomics. (3 h)**

Mathematically intensive approach to demand and supply analysis, neoclassical theory of household and firm behavior, and alternative market structures. P - ECN 150 and MST 112. (D)

**ECN 211. Intermediate Mathematical Macroeconomics. (3 h)**

Mathematically intensive approach to macroeconomic analysis of national income, unemployment, inflation, and growth. P - ECN 150 and MST 112. (D)

**ECN 215. Econometric Theory and Methods. (3 h)**

Estimation and inference in relation to quantitative economic models. Methods covered include Ordinary Least Squares, Generalized Least Squares and Maximum Likelihood. P-ECN 150, STA 111 or MST 357/ STA 310, MST 113 and MST 121. (D, QR)

**ECN 240. Economics of Health and Medicine. (3 h)**

Applications of the methods of economic analysis to the study of the health care industry. P-ECN 150 and an applied statistics course such as ANT 380, BIO 380, BEM 201, HES 262, PSY 311, SOC 271 or STA 111, or POI. (D)

**ECN 241. Environmental and Natural Resource Economics. (3 h)**

Develops the economic theory of natural resource markets and explores public policy issues in natural resources and the environment. P-ECN 150 (D)

**ECN 243. Economics of Global Health. (3 h)**

Applications of economic analysis to study health issues in low and middle-income countries. P-ECN 150 and an applied statistics class such as: ANT 380, BIO 380, BEM 201, HES 262, STA 111 (previously MST 109), PSY 311, or SOC 371, or POI. (D)

**ECN 261. American Economic Development. (3 h)**

The application of economic theory to historical problems and issues in the American economy. P-ECN 150. (D)

**ECN 270. Current Economic Issues. (3 h)**

Examines current economic issues using economic theory and empirical evidence. Topics may include recent macroeconomic trends, the distribution of income, minimum wages, immigration, Social Security, war, climate change, trade, regulation and deregulation, antitrust policy, health care, labor unions, tax reform, educational reform, and others. P-ECN 150. (D)

**ECN 271. Selected Areas in Economics. (1-3 h)**

A survey of an important area in economics not included in the regular course offerings. The economics of housing, education or technology are examples. Students should consult the instructor to ascertain topic before enrolling. P-ECN 150. (D)

**ECN 280. Economics Internship. (1 h)**

Receive course credit in the form of an internship class in order to satisfy Curricular Practical Training (CPT) to be approved, supervised, and evaluated by an appropriate faculty advisor. International students must also meet a set of eligibility criteria for CPT. One hour of credit from Washington DC Internship (WDC 100) or Wake West Internship may be approved for ECN 280. Does not count towards the Economics B.A., the Mathematical Economics B.S., or the Economics Minor. Pass/Fail only. P-POI.

**ECN 291. College Fed Challenge I. (1.5 h)**

Spring semester preparation course for the annual College Fed Challenge competition. The course will focus on understanding current macroeconomic events and theoretical economic models through the lens of monetary policy. P-POI.

**ECN 292. College Fed Challenge II. (1.5 h)**

Preparation for the annual fall College Fed Challenge competition. The course will focus on preparing a presentation on current economic conditions and a monetary policy recommendation for the competition. P-POI.

**ECN 306. Intermediate Microeconomics II. (3 h)**

More advanced theory of maximizing behavior of economic agents with discussion of risk, uncertainty, and economic dynamics. Theory employed in assessment of policy issues. P-ECN 205 or 210. (D)

**ECN 316. Game Theory. (3 h)**

An introduction to mathematical models of social and strategic interactions. P-ECN 205 or 210 and STA 111. (D)

**ECN 317. Market Design. (3 h)**

Theoretical analysis of the design of rules and algorithms to allocate scarce resources. Topics include matching markets, such as those for school choice, entry-level labor markets, and kidney exchanges; auctions with applications to the sale of natural resources, financial assets, and advertising; and online platforms. P-ECN 205 or 210. (D)

**ECN 318. Advanced Topics in Mathematical Economics. (3 h)**

Advanced mathematical techniques such as dynamic programming or lattice theory, and the applications of these techniques to optimization and equilibrium problems in various fields of economics such as growth theory, search theory, and auction theory. P-ECN 210, 211 and MST 112. (D)

**ECN 319. Behavioral Economics. (3 h)**

This course analyzes ways of decision-making that deviate from the standard economic understanding of rational decision-making. The main focus is on behaviors that fall under the umbrella of prospect theory. P-ECN 205 or 210. (D)

**ECN 322. Monetary Theory and Policy. (3 h)**

An investigation of the nature of money, the macroeconomic significance of money, financial markets, and monetary policy. P-ECN 207 or 211. (D)

**ECN 323. Financial Markets. (3 h)**

A study of the functions, structure, and performance of financial markets. P-ECN 205 or 210 and ECN 207 or 211. (D)

**ECN 324. Law and Economics. (3 h)**

An economic analysis of property, contracts, torts, criminal behavior, due process, and law enforcement. P-ECN 205 or 210. (D)

**ECN 326. Theory of Social Choice. (3 h)**

Development of Constitutional Economics in establishing rules for governmental and group decision-making by democratic means. Implications for various voting rules are considered in terms of both positive and normative criteria. P-ECN 205 or 210. (D)

**ECN 333. Economics in Sports. (3 h)**

Study of the design of sporting contests with particular attention paid to league governance decisions, measuring competitor productivity, and strategies used by competitors. P-ECN 205 or 210. (D)

**ECN 335. Economics of Labor Markets. (3 h)**

A theoretical and empirical survey of labor markets. Topics include: the demand and supply of labor, compensating wage differentials, education and training, discrimination, unions, public sector employment, earnings inequality, and unemployment. P-ECN 205 or 210. (D)

**ECN 351. International Trade. (3 h)**

Development of the theory of international trade patterns and prices and the effects of trade restrictions such as tariffs and quotas. P-ECN 205 or 210. (D)

**ECN 352. International Finance. (3 h)**

The study of the open macroeconomy, with a particular focus on the foreign exchange market and the history of the international monetary system. P-ECN 205 or 210 and ECN 207 or 211. (D)

**ECN 358. Economic Growth and Development. (3 h)**

A study of the problems of economic growth, with particular attention to the less developed countries of the world. P-ECN 205 or 210 or POI. (D)

**ECN 362. History of Economic Thought. (3 h)**

Historical survey of the main developments in economic thought from the Biblical period to the 20th century. P-ECN 205 or 210 and ECN 207 or 211. (D)

**ECN 365. Economic Philosophers. (3 h)**

An in-depth study of the doctrines and influence of up to three major figures in economics, such as Smith, Marx, and Keynes. P-ECN 205 or 210 and ECN 207 or 211. (D)

**ECN 372. Selected Areas in Economics. (1-3 h)**

Survey of an important area in economics not included in the regular course offerings. The economics of housing, education or technology are examples. Students should consult the instructor to ascertain topic before enrolling. P-ECN 205 or 210. (D)

**ECN 373. Selected Areas in Economics. (1-3 h)**

Survey of an important area in economics not included in the regular course offerings. The economics of housing, education or technology are examples. Students should consult the instructor to ascertain topic before enrolling. P-ECN 207 or 211. (D)

**ECN 374. Topics in Macroeconomics. (3 h)**

Considers significant issues and debates in macroeconomic theory and policy. Examples might include a New Classical-New Keynesian debate, currency crises, conversion of federal deficit to surplus, competing models of economic growth, alternative monetary and fiscal policy targets. P-ECN 207 or 211. (D)

**ECN 375. Macroeconomic Models. (3 h)**

Development of formal macroeconomic models of both Keynesian and classical types. Involves exploration of comparative statics, dynamic analysis and policy assessment. P-ECN 207 or 211. C-MST 113 and 121. (D)

**ECN 376. Quantitative Asset Pricing. (3 h)**

This class studies the theoretical and applied pricing of options. Topics include basic definitions and payoffs of options, the binomial asset pricing model, the Black-Scholes pricing model, and Monte Carlo simulations. Students will also study the ways in which options can provide a hedge against uncertainty. P-ECN 207 or 211 and MST 121.

**ECN 390. Individual Study. (1.5, 3 h)**

Directed readings in a specialized area of economics. P-POI.

**ECN 391. Public Finance. (3 h)**

An examination of the economic behavior of government. Includes reasons for and against government action, the appropriate response of governments in cases of market failures, and how private agents will respond to those government actions. P-ECN 209 or 215; and ECN 205 or 210. (D)

**ECN 392. Public Choice. (3 h)**

Traditional tools of economic analysis are employed to explore such topics in political science as political organization, elections, coalition formation, the optimal provision of public goods, and the scope of government. P-ECN 209 or 215; and ECN 205 or 210. (D)

**ECN 393. Economics of Industry. (3 h)**

Analysis of the link between market structure and market performance in United States industries from theoretical and empirical viewpoints. Examines the efficiency of mergers, cartels, and other firm behaviors. Case studies may include automobiles, steel, agriculture, computers, sports, and telecommunications. P-ECN 209 or 215; and ECN 205 or 210. (D)

**ECN 394. Economics of Higher Education. (3 h)**

Applies economic theory and data analysis in an investigation of important current issues in higher education. Issues of prestige, admissions, financial aid, access, student and faculty quality, alumni giving and endowments, and externalities will be addressed. P-ECN 209 or 215; and ECN 205 or 210. (D)

**ECN 395. Prediction Markets. (3 h)**

Prediction markets help make forecasts about upcoming events, and are used by large companies to manage risk. This course provides background on what these markets are, the theoretical reasons why they might work, and studies real world applications such as election forecasting. Students will participate and trade in a live prediction market throughout the semester. P-ECN 205 or 210; and ECN 209 or 215. (D)

**ECN 398. Preparing for Economic Research. (1.5 h)**

Designed to assist students in selecting a research topic and beginning a research project on the selected topic. P-ECN 209 or 215 and POI.

**ECN 399. Research. (1.5 h)**

Completion of a senior research project. Required of candidates for departmental honors. P-ECN 398 and POD.

## Education (EDU)

**EDU 101. Issues and Trends in Education. (3 h)**

Educational issues and trends with a focus on K-12 schools and teachers. Focus will vary by instructor. (D)

**EDU 103A. Preparing for Community Engagement. (1.5 h)**

Prepares students to extend their education beyond the classroom setting. Includes a focus on community-engaged service, mentoring, tutoring, teaching, and learning. Pass/Fail only.

**EDU 103B. Participating in Community Engagement. (1.5 h)**

Allows students to learn more about and participate in community-engaged service as part of a tutoring/mentoring practicum experience. Pass/Fail only. P-POI.

**EDU 111. Special Topics. (1.5 h)**

A survey of topics in education. Focus will vary by instructor.

**EDU 120. Personal Framework for Career Exploration. (1.5 h)**

First course in the College to Career series. Focuses on student self-assessment including personal attributes such as values, interests, personality/temperament, strengths, and beliefs. Begins the process of connecting student attributes with the exploration of options in the world of work. Open to all students, but designed especially for first- and second-year students. Students may not enroll in EDU 120 and EDU 299 in the same semester. Half semester.

**EDU 201. Educational Policy and Practice. (3 h)**

Philosophical, historical and sociological foundations of education, including analysis of contemporary accountability systems. (CD, D)

**EDU 201L. Field Lab I. (2 h)**

Practical experiences in classrooms with focus on school and society. Weekly public school experience and seminar. Pass/Fail only. Service Learning. P or C - EDU 201, or POI.

**EDU 202. Field Experience One. (2 h)**

Practical experiences in classrooms. Weekly public school experience and seminar. Pass/Fail only.

**EDU 203. Methodology and Management Lab. (2 h)**

Elementary education students observe classroom pedagogy and gain teaching experience in a diverse elementary school classroom through weekly observations and WFU seminars. Service Learning. Pass/Fail only. P- POI.

**EDU 204. Integrating Literacy, Technology and the Arts across the Elementary Curriculum. (2 h)**

Practical strategies for integrating literacy, technology and the arts in all areas of the elementary curriculum, including math, science, social studies and health. C-EDU 250.

**EDU 205A. Developing Literacy and Communication Skills in Elementary Schools, K-2. (2 h)**

Implementing research-based strategies for teaching and assessing reading, writing, listening and speaking in grades K-2. P-POI.

**EDU 205B. Developing Literacy and Communication Skills in Elementary Schools, Grades 3-6. (2 h)**

Implementing research-based strategies for teaching and assessing reading, writing, listening and speaking in grades 3-6. P-POI.

**EDU 206. Assessment for Positive Student Outcomes. (2 h)**

An exploration of K – 6 assessment models and strategies to support positive student outcomes. C-EDU 250.

**EDU 220. Options in the World of Work. (1.5 h)**

Second course in the College to Career series. Explores structure of the world of work, job functions and roles. Focus on nature and expectations of the world of work, including exploration of opportunities aligned with interests of students, and correlation between careers and education, career trajectories, graduate school, employment trends and the unique role work plays in creating meaning in the life of the individual. Open to all students, but designed for first and second year students. Students may not enroll in EDU 220 and EDU 299 in the same semester. Half semester. P or C-EDU 120 or POI.

**EDU 221. Children's Literature. (2 h)**

A survey of the types and uses of literature appropriate for elementary grades, including multicultural literature.

**EDU 222. Integrating the Arts and Movement into the Elementary Curriculum. (2 h)**

A survey of the materials, methods, and techniques of integrating the arts and physical development into the elementary curriculum. P-POI.

**EDU 223. Theatre in Education. (3 h)**

Practical experience for theatre and education students to work together with children in the classroom using theatre to teach core curriculum. Emphasis on methods and techniques as well as the development and implementation of creative lesson plans. Weekly public school teaching experience and seminar. Also listed as THE 270.

**EDU 231. Adolescent Literature. (3 h)**

A survey of literature that centers on the lives of adolescents and young adults. Attention is given to the reading and interpretation of classic and contemporary literature across genres.

**EDU 236. Creativity, Innovation, and Entrepreneurial Thinking in 21st Century Education. (2 h)**

Helps students recognize economic, business, and education changes brought about by increased globalization, the opportunities and challenges associated with globalization, and the need to develop human capacity for success in a global economy that values innovators and entrepreneurs. Designed for any student who is interested in exploring the intersections among the following major course topics: Creativity, Innovation, Entrepreneurial Spirit, Education and Globalization.

**EDU 250. Student Teaching: Elementary. (10 h)**

Supervised teaching experience in grades K-6. Full-time. Includes a weekly reflective seminar. Service Learning. Pass/Fail only. P- POI.

**EDU 271. Geography: The Human Environment. (3 h)**

A survey of the geography of human activity as it occurs throughout the world. Emphasis is placed on current problems related to population, resources, regional development, and urbanization. Credit not allowed for both EDU 271 and 274.

**EDU 272. Geography Study Tour. (3 h)**

A guided tour of selected areas to study physical, economic, and cultural environments and their influence on man. Background references for reading are suggested prior to the tour. Offered in the summer. (CD)

**EDU 273. Geography: The Natural Environment. (3 h)**

A systematic study of the major components of physical geography with special emphasis on climate and topography.

**EDU 274. Environmental Geography. (3 h)**

A systematic study of major environmental issues on a global scale with an exploration of implications and possible solutions. Credit not allowed for both EDU 274 and 271.

**EDU 281. Public Life and the Liberal Arts. (3 h)**

Devoted to topics of abiding significance. Fundamental dilemmas and resolutions associated with each topic will be examined through a consideration of their influence in the liberal arts tradition. Politics and the Arts, and Theory and Practice in Public Life are representative topics.

**EDU 293. Professional Development Seminar: Elementary. (3 h)**

Seminar in which student teachers reflect on all aspects of the elementary school curriculum, including meeting the needs of diverse learners, lesson planning, best practices, classroom management and leadership.

**EDU 294. Teaching Elementary Language Arts. (3 h)**

Methods and materials for teaching language arts, including adaptations for diverse and exceptional learners. P-POI.

**EDU 295. Teaching Elementary Social Studies. (3 h)**

Methods and materials for teaching social studies, including adaptations for diverse and exceptional learners. P-POI.

**EDU 296. Elementary Mathematics Methods: Inquiry Teaching and Learning. (3 h)**

Methods and materials for teaching elementary mathematics content, including adaptations for diverse and exceptional learners. P-POI.

**EDU 298. Elementary Science Methods: Inquiry Teaching and Learning. (3 h)**

Methods and materials for teaching elementary science content, including adaptations for diverse and exceptional learners. P-POI.

**EDU 299. Career Planning. (1.5 h)**

Covers all of the three components of the career-planning process: (1) personal assessment of work-related values, interests and skills; (2) exploration of career options; and (3) resume writing, interviewing, and job-search skills. Junior or senior standing only. Students may not receive credit for both EDU 320 and EDU 299. Students may not enroll in EDU 120 and EDU 299 in the same semester. Students may not enroll in EDU 220 and EDU 299 in the same semester. Half semester.

**EDU 300. School Leadership. (1 h)**

Development of leadership skills within the context of school and professional learning communities. P-EDU 250.

**EDU 303. History of Western Education. (3 h)**

Educational theory and practice from ancient times through the modern period, including American education.

**EDU 304. Social Justice Issues in Education. (3 h)**

This course facilitates exploration of issues of social justice and schooling from both theoretical and practical perspectives. It includes a focus on multi-cultural education, global awareness, issues of equity in school funding, urban and rural education, poverty, and marginalized populations. (CD)

**EDU 305. The Sociology of Education. (3 h)**

A study of contemporary educational institutions. This course examines such issues as school desegregation, schooling and social mobility, gender equity, and multiculturalism.

**EDU 307. Instructional Design, Assessment, and Technology. (3 h)**

Introduction to contemporary technologies and their applications for supporting instruction, assessment, and professional practice. P - EDU 311.

**EDU 308. School and Society. (3 h)**

A study of continuity and change in educational institutions, including analysis of teachers, students, curriculum, evaluation, contemporary problems, and reform movements.

**EDU 309L. Introduction to Secondary Education. (2 h)**

Practical experiences in classrooms with focus on secondary classrooms and learners. Weekly public school experience and seminar. Pass/Fail only. Service Learning.

**EDU 310. Race, Class, and Gender in a Color-blind Society. (3 h)**

An examination of issues surrounding race, class, and gender in the United States. Topics include income and wealth, theories of discrimination, public education, gender bias, and patterns of occupational and industrial segregation. Also listed as AES 310.

**EDU 311. Learning and Cognitive Science. (3 h)**

Theories and principles of cognition applied to teaching and learning. (CD, D)

**EDU 312. Teaching Exceptional Children. (3 h)**

Surveys the various types of learning differences in K-6 students. Emphasis is on effective teaching and assessment techniques to support diverse learner needs. Students tutor exceptional learners twice a week and complete a research case study on one student. Service Learning. P-POI.

**EDU 313. Human Growth and Development. (3 h)**

A study of the intellectual, emotional, and physical components of growth from birth to adolescence, with special concern for the educational implications of this process.



**EDU 315. Literacy Interventions. (3 h)**

Strategies for assessing the literacy skills of students who struggle with reading and writing and providing them with appropriate interventions. Students attend seminars focused on diagnosis and remediation, provide remedial instruction for one student, and complete a research case study on that student. Service Learning.

**EDU 320. Strategic Job Search Processes. (1.5 h)**

Third course in the College to Career series. Provides students with the fundamental knowledge, strategies, and skills required to conduct an effective job search including professional written and verbal communication; interviewing techniques; networking and other job search strategies; the branding and marketing of oneself; and evaluating offers and negotiation. Half semester. P-EDU 120 and 220 or POI.

**EDU 330. Fathers and Daughters. (3 h)**

Explores father-daughter relationships in contemporary American society through an interdisciplinary lens of film, literature, music, theater, media, and social science research. P-sophomore standing.

**EDU 337. TESOL Linguistics. (3 h)**

An introduction to the theoretical and practical linguistics resources and skills for teaching English to speakers of other languages (TESOL) within the U.S. or abroad. Also listed as LIN 337. P-LIN/ANT 150 or ENG 304; knowledge of a second language is recommended.

**EDU 351. Adolescent Psychology. (3 h)**

An introduction to theories of adolescent psychology as related to teaching and counseling in various settings. The readings emphasize researchers' suggestions for parenting, teaching, and counseling adolescents between the ages of thirteen and nineteen.

**EDU 353. Language in Education. (3 h)**

This seminar explores the role of language in education contexts. Topics include the study of bilingual and bicultural education, second language education, cross-cultural education, and communication in the classroom. Service-learning component. Also listed as ANT 353. (CD)

**EDU 354. Content Pedagogy. (3 h)**

Methods, materials, and techniques used in teaching particular secondary subjects (English, mathematics, science, second languages, social studies). P-POI.

**EDU 354L. Field Lab III. (2 h)**

Practical experiences in classrooms with focus on pedagogy and content. Weekly public school experience and seminar. Service Learning. Pass/Fail only. C-EDU 354.

**EDU 358. Studies in Contemporary Leadership. (3 h)**

An examination of contemporary leadership theory and its various applications in society. Students engage in practical leadership exercises, read on a variety of leadership topics, and develop their own philosophy of leadership. A twenty-five contact hour internship is required.

**EDU 360. Professional and Life Skills. (1.5 h)**

Fourth course in the College to Career series. Transition to life and work after college. Discusses work ethics and etiquette, work relationships, and ongoing career management. Also covers personal life skills such as budgeting and financial management, stress management, and avocations. Course applies liberal arts education to successful, meaningful life after college, including creation of an e-portfolio demonstrating professional competencies gained through the course of their Wake Forest experience. Senior standing only. Half semester.

**EDU 364L. Field Lab IV. (9 h)**

Supervised teaching internship in grades 9-12 (K-12 for foreign language). Full-time, 15-week field experience. Service Learning. Pass/Fail only. P-POI. C-EDU 365.

**EDU 365. Professional Development Seminars. (3 h)**

Analysis and discussion of problems and issues in secondary school teaching. Examination of research and practice-based strategies. Pass/Fail only. C-EDU 364L.

**EDU 368. Professional Experiences in Education. (3 h)**

This course offers students a placement in an educational setting under the supervision of a professional mentor. During this internship, student examine a critical topic in a local school, a community agency, a non-profit organization, or other educational setting. P-minimum gpa of 2.7 and POI.

**EDU 370. Professional Experience in the Engaged Liberal Arts. (3 h)**

This course offers students an opportunity to develop professional experience while exploring the value of their liberal arts education. Students will develop a professional plan and capture evidence of their own impact using the tools of the engaged liberal arts. During this internship, students will examine a critical topic related to leadership or professional development. P-POI.

**EDU 373. Comparative and International Education. (3 h)**

A study of various historical, political, economic, cultural, and social issues shaping education in selected countries throughout the world. The course aims to expand student understanding of differing educational and pedagogical structures and comparatively investigate educational issues around the globe. (CD)

**EDU 374. Student Teaching Seminar. (1.5 h)**

Analysis and discussion of problems and issues in the teaching of particular secondary subjects (English, mathematics, science, second languages, social studies). Emphasis on the application of effective instructional methods and materials.

**EDU 377. Literacy in the 21st Century. (3 h)**

This course examines the impact of emerging literacy trends on 21st century students in a digital, global world.

**EDU 381. Special Needs Seminar. (1 h)**

Analysis and discussion of practical problems and issues in the teaching of special needs students in the secondary classroom. Topics include reading and writing in the content area, inclusion, and evaluation. Pass/Fail only.

**EDU 382. Teaching Elementary Reading. (3 h)**

Methods and materials for teaching reading, including adaptations for diverse and exceptional learners. P-POI.

**EDU 383. Classroom Management Seminar. (1 h)**

Examination of research and practice based strategies for secondary school classroom management and discipline. Pass/Fail Only.

**EDU 385. Diversity Seminar. (1 h)**

Exploration of multi-cultural issues and relevant Spanish language and cultural teaching practices essential for classroom communication. Pass/Fail only.

**EDU 387. Tutoring Writing. (1.5 h)**

Introduction to composition theory and rhetoric with a special emphasis on one-to-one tutoring techniques. Students will analyze their own writing process and experiences, study modern composition theory, and practice tutoring techniques in keeping with these theories. Strongly recommended for those interested in working in the Writing Center as peer tutors. A student may not receive credit for both EDU 387 and WRI 341.



**EDU 388. Writing Pedagogy. (3 h)**

This course blends theory and practice, providing students from all content areas with a foundational understanding of writing-pedagogy methods and approaches. Topics of study will include writing across the curriculum, writing research, and assessment of writing.

**EDU 390. Methods and Materials for Teaching Foreign Languages (K-6). (3 h)**

A survey of the basic materials, methods, and techniques of teaching foreign languages in the elementary and middle grades. Emphasis is placed on issues and problems involved in planning and implementing effective second language programs in grades K-6.

**EDU 391. Teaching the Gifted. (3 h)**

An investigation of theory and practice pertinent to teachers of the gifted.

**EDU 392. The Psychology of the Gifted Child. (3 h)**

A discussion of giftedness and creativity in children and the relationship of those characteristics to adult superior performance. Topics to be covered include a history of the study of precocity, methods and problems of identification, the relationship of giftedness and creativity, personality characteristics and social-emotional problems of gifted children, and the social implications of studying giftedness.

**EDU 393. Individual Study. (1-3 h)**

A project in an area of study not otherwise available in the Department of Education. Permitted upon departmental approval of petition presented by a qualified student.

**EDU 394. Internship in Education of the Gifted. (3 h)**

An intensive period of observation and instruction of gifted students. Readings and directed reflection upon the classroom experience will be used to develop a richer understanding of such a special school setting.

**EDU 395. Teaching Diverse Learners. (3 h)**

This course addresses diversity in the classroom, particularly the needs of English Learners (EL) and exceptional children (EC). Examines differentiated instruction with appropriate instructional and behavioral strategies to meet the needs of all students.

## Engineering (EGR)

**EGR 110. Introduction to Human-Centered Engineering Design. (4 h)**

Introduction to the study and practice of engineering, systems thinking, human-centered design, research, creative and analytical problem-solving practices, and engineering for humanity. With laboratory. This course is targeted at students who are not interested in majoring nor minoring in Engineering. Credit for both EGR 110 and EGR 111 is not allowed. (D)

**EGR 111. Introduction to Engineering Design. (4 h)**

Introduction to the study and practice of engineering, systems thinking, design, research, creative and analytical problem-solving practices, and engineering for humanity. With laboratory. This course is targeted at students who are interested in majoring or minoring in Engineering. Credit for both EGR 110 and EGR 111 is not allowed. (D)

**EGR 112. Introduction to Engineering Experimentation. (4 h)**

Exploration of tools, processes, and quantitative and qualitative analysis for modern engineering practice. With laboratory.

**EGR 113. Integrated Sciences. (4 h)**

An integrated basic science course covering topics in the biological, chemical, and physical sciences. With laboratory.

**EGR 211. Materials and Mechanics. (4 h)**

Fundamentals of materials and mechanics (statics and dynamics) for engineering applications. With laboratory. P-CHM 111/111L, EGR 111, 112, MST 111, PHY 113. P or C-MST 112.

**EGR 212. Transport Phenomena. (4 h)**

An integrated course in the fundamentals of thermodynamics, fluid mechanics, and heat transfer with emphasis on principles of conservation and transport of mass, energy, and momentum. With laboratory. P-CHM 111/111L, EGR 111, 112, MST 111, 112, PHY 113. P or C-MST 113.

**EGR 213. Mechanical Computer Aided Design I. (2 h)**

Introduction to Computer Aided Design (CAD) for mechanical assemblies including design planning additive and subtractive manufacturing techniques. P-EGR 111.

**EGR 214. Embedded Microcontroller Systems. (2 h)**

Examination of the structure of digital electronic systems with specific focus on microcontroller architectures for embedded system applications, as well as interfacing with analog and digital peripherals. With laboratory. P-EGR 111 or EGR 112 and CSC 111.

**EGR 215. Digital Electronics. (2 h)**

Design and hardware implementation of digital electronic systems using basic Boolean logic gates and other common digital logic tools such as multiplexers, decoders, flip-flops, shift registers, and counters. With laboratory. P-EGR 111 or 112.

**EGR 280. Projects with Engineering for Non-Majors. (1-4 h)**

Specialized and focused learning via experiential projects. With laboratory. May be repeated for credit.

**EGR 281. Introductory Projects with Engineering for Majors. (1-4 h)**

Specialized and focused learning via experiential projects. Does not count towards engineering technical elective credit. With laboratory. May be repeated for credit.

**EGR 301. Special Topics in Engineering. (1-4 h)**

Seminar and/or lecture and/or project-based and/or laboratory courses in selected topics. Does not count towards engineering technical elective credit unless a designation of "Technical Elective" is noted. May be repeated if the course title changes.

**EGR 311. Control Systems and Instrumentation. (4 h)**

Fundamentals of circuits and semiconductor electronics as applied to the analysis and design of engineering instrumentation and control systems. With laboratory. P-EGR 211, 212, and MST 113. P or C-MST 205 (or MST 121 and MST 251).

**EGR 312. Computational Modeling in Engineering. (4 h)**

Fundamentals of computational problem solving tools (programming, systems modeling, numerical methods) for diverse engineering applications, with consideration of the economic and ethical outcomes of decisions that are made using such techniques. With laboratory. P-EGR 211, 212, MST 113, 205 (or MST 121 and MST 251). (STA 111 highly encouraged but not required).

**EGR 313. Capstone Design I. (1 h)**

The first course of the capstone design experience. C-EGR 311, 312.

**EGR 314. Capstone Design II. (4 h)**

The second course of the capstone design experience. With laboratory. P-EGR 311, 312, and EGR 313.

**EGR 315. Capstone Design III. (4 h)**

The third course of the capstone design experience. With laboratory. P-EGR 314.

**EGR 316. Mechanical Computer Aided Design II. (2 h)**

Advanced Computer Aided Design (CAD) for mechanical systems and stress/strain analysis with consideration of material properties and their role in manufacturability. With laboratory. P-EGR 211.

**EGR 317. Renewable Energy Systems. (2 h)**

Fundamentals of renewable energy systems, including wind, solar, biomass, and hydroelectric with economics evaluation and understanding technological innovations. With laboratory. P-EGR 212.

**EGR 318. Biomimetic Engineering. (2 h)**

Fundamentals of bioinspired design, functional modeling, and reverse engineering principles towards innovative solutions. With laboratory. P-EGR 211, 212.

**EGR 319. Environmental Engineering. (2 h)**

Fundamentals of environmental systems, including water supply, water quality, water treatment, air pollution, soil remediation, environmental risk assessment, and climate variation. Explore how engineers both leverage and sustain these systems and inform environmental and public health policies. With laboratory. P-EGR 211 and 212.

**EGR 320. Biomedical Engineering Applications. (2 h)**

An overview of biomedical engineering applications such as cardiovascular fluid mechanics, biomechanics, biomaterials, tissue engineering, signal processing and instrumentation, and biomedical ethics. With laboratory. P-EGR 211, 212, and MST 205.

**EGR 321. Chemical Engineering Separations. (2 h)**

Theory and design of chemical separation processes, and related flow diagrams, by applying material and energy balances and chemical equilibria fundamentals. Includes distillation, liquid-liquid extraction, ion exchange, and gas absorption. With laboratory. P-EGR 212, MST 205, CHM 122 and 280.

**EGR 322. Materials Engineering and Characterization. (2 h)**

Relationships between atomic structure, microstructure, and observable properties of metallic, ceramic, and polymeric materials. Measurement and modification of material properties. With laboratory. P-EGR 211, MST 112, CHM 111 and 111L.

**EGR 323. Chemical Reaction Engineering. (2 h)**

Rates of homogeneous, catalytic, and biological reactions; reactor design and analysis, and related flow diagrams. With laboratory. P-EGR 212, MST 205, CHM 122 and 280.

**EGR 324. Hydrologic and Hydraulic Engineering. (2 h)**

Fundamentals of the hydrologic cycle, estimating hydrologic fluxes, watershed-scale modelling, and open channel hydraulics. With laboratory. P-EGR 212.

**EGR 325. Medical Product Design. (2 h)**

Fundamentals of innovative and user-centered product design processes. Use of clinical observations and client interviews to derive new medical device designs and analysis for improving system performance. With laboratory. P-EGR 211 and 212.

**EGR 326. Human Factors Engineering. (2 h)**

A systems approach to understanding human-machine interfaces, psychology of design, ergonomics, human error and system reliability. With laboratory. P-EGR 211 and 212.

**EGR 327. Microengineering. (2 h)**

An overview of microengineering systems and an exploration of how size affects critical scaling law parameters, material properties, fabrication techniques, design and use. With laboratory. P-EGR 211 and 212.

**EGR 328. Inverse Problems in Engineering. (2 h)**

Fundamental approaches and techniques in solving inverse problems using mathematical, numerical, and statistical formulations. Applications include satellite remote sensing of the earth and environment, medical imaging, image and signal processing, and machine learning. With laboratory. P-EGR 211, MST 113 and 205, and STA 111.

**EGR 329. Functional Advanced Materials Characterization. (2 h)**

Relationships between atomic structure, microstructure, and observable properties of functional and advanced materials. measurement and modification of material properties. With laboratory. P-EGR 211, MST 113, CHM 111 and 111L.

**EGR 330. Infrastructure Systems Design. (2 h)**

Explore principles of infrastructure systems through experiential learning and application of concepts to design or redesign a local system with consideration of technical, social, environmental, and economic factors. With laboratory. P-EGR 211 and 212.

**EGR 331. Thermal Fluid Systems. (2 h)**

Applying fundamentals of fluid mechanics, heat transfer, and thermodynamics across diverse engineering applications in the analysis and design of thermal fluid systems. With laboratory. P-EGR 212 and MST 205.

**EGR 332. Structural Engineering I. (2 h)**

An introduction to structural engineering systems and materials such as steel, wood, and concrete. Emphasis on understanding the load path within real structures and how that impacts their design. With laboratory. P-EGR 211.

**EGR 333. Tissue Engineering. (2 h)**

Fundamentals of biomaterials, stem cells, and imaging technologies to analyze novel tissue engineering applications. With laboratory. P-EGR 211, 212, BIO 111 or 150, CHM 111 and 111L or POL.

**EGR 334. Mobile Robotics. (2 h)**

Introduction to mobile robotics, from hardware (energy, locomotion, sensors) and software (signal processing, control, localization, trajectory planning, high-level control). With laboratory. P-EGR 211, 212 and 311.

**EGR 335. Field Programmable Gate Array (FPGA) Design and Implementation. (2 h)**

An introduction to field programmable gate array (FPGA) design and implementation. With laboratory. P-EGR 311.

**EGR 336. Healthcare Engineering. (2 h)**

Beyond biomedical engineering, engineers play a critical role in bettering healthcare systems via big data analytics, next generation technologies, translational science and engineering, precision medicine, and diagnostic AI. With laboratory. P-EGR 312.

**EGR 337. Biofluid Mechanics. (2 h)**

Introduction to Bioengineering principles applied to the cardiovascular system. Specifically, this course will apply relevant theories in Fluid Mechanics and Solid Mechanics to the cardiovascular system. With laboratory. P-EGR 211 and 212.

**EGR 338. Bioprinting and Biofabrication. (2 h)**

Engineering principles applied to bioprinting and biofabrication with fundamentals of biomaterials, tissue engineering, and tissue construct design principles. With laboratory. P-EGR 211.

**EGR 339. Engineering Reynolda. (2 h)**

A historical engineering perspective with the historic Reynolda House as a case study. Fundamentals of reverse engineering and research in the context historical structures and systems. Introduction to design as it relates to existing structures. With laboratory. P-EGR 211 and 212.

**EGR 340. Acoustics. (2 h)**

Fundamentals in acoustics involving concepts of wave phenomena and sound perception, governing principles and mathematical modeling of acoustics applications. With laboratory. P-EGR 212.

**EGR 341. 3D Modeling and Additive Manufacturing. (2 h)**

Fundamentals of a variety of 3D printing techniques for rapid prototyping, 3D modeling of standard machine elements, creation of engineering drawings and animations. With laboratory. P-EGR 211.

**EGR 342. Design of Machine Elements. (2 h)**

Application of design theories to practical machine elements and selection of machine components for diverse applications. With laboratory. P-EGR 211.

**EGR 343. Biomaterials. (2 h)**

Fundamentals of different types of biomaterials and their application across a diverse set of biomedical scenarios. With laboratory. P-EGR 211.

**EGR 344. Mechanics of Intelligent Material Systems. (2 h)**

Fundamentals of material systems as actuator, sensors, and energy harvesters across diverse applications, including artificial muscle electroactive polymer technologies, with an emphasis on materials science and engineering design. With laboratory. P-EGR 211.

**EGR 345. System Engineering and Control Theory. (2 h)**

Fundamentals of system engineering and control theory across diverse applications, including mechanical, electrical, environmental, biological, and socio-economic systems. With laboratory. P-EGR 311 and 312.

**EGR 346. Engineering Analysis of Vibrations. (2 h)**

Modeling and solution of free and forced vibrating dynamic systems, including single and multiple degree of freedom systems, as well as continuous systems. Applications includes earthquake modeling, beam and membrane vibrations, etc. With laboratory. P-EGR 211. P or C-MST 112.

**EGR 347. Finite Element Analysis of Engineering Systems. (2 h)**

Fundamentals of finite element methods and commercial finite element codes for solid mechanics, heat transfer, and fluid mechanics applications in one, two, and three dimensions. With laboratory. P-EGR 312.

**EGR 348. Advanced Fluid Mechanics. (2 h)**

Advanced fluid kinematics, finite control volume analysis, and differential analysis of fluid flows. Includes applications of inviscid and viscous flows, similitude, dimensional analysis, open channel flows, compressible flows and flow in turbomachines. With laboratory. P-EGR 212. P or C-MST 113.

**EGR 349. Biomechanics of Human Movement. (2 h)**

Fundamentals of human (and animal) movement and modeling of skeletal, muscular, and neurological motion. Kinematic analysis of human and animal movement, and kinetics (forces) required to generate movement. With laboratory. P-EGR 211.

**EGR 350. Advanced Electronics. (2 h)**

Exploration and applications of operational amplifiers and other analog linear integrated circuits. With laboratory. P-EGR 311.

**EGR 351. Biomechanics of Animal Locomotion. (2 h)**

Biological and mechanical principles of animal movement on both solid ground and through fluids, including flying, swimming, running, jumping, climbing, etc. Considers force production and patterns of movement including muscular action and vortex behavior. With laboratory. P-EGR 211 and 212.

**EGR 380. Fundamentals of Engineering Exam Prep. (1 h)**

Review of engineering fundamentals in preparation for Fundamentals of Engineering exam. P or C-EGR 311 and 312.

**EGR 381. Engineering Research. (1-4 h)**

Engineering research project conducted under the guidance of a research mentor. Does not count towards engineering technical elective credit unless a designation of "Technical Elective" is indicated. Upon completion and review of project deliverables, engineering technical elective credit may be granted. With laboratory. May be repeated for credit.

## English (ENG)

**ENG 101. The Discipline of English Studies. (1 h)**

An opportunity to experience and reflect analytically in writing on the diverse cultural and intellectual life at Wake Forest, with an emphasis on literary studies, rhetorical studies, and creative writing events and topics. Pass/fail only. May not be repeated.

**ENG 150. Literature Interprets the World. (3 h)**

Introduction to ways literary artists shape experience, focusing on one topic or selected topics; primarily discussion; writing intensive. P or C-WRI 111 or exemption from WRI 111. (D)

**ENG 165. Studies in British Literature. (3 h)**

Emphasis on important writers representing different periods and genres; primarily discussion; writing intensive. P or C-WRI 111 or exemption from WRI 111. (D)

**ENG 175. Studies in American Literature. (3 h)**

Emphasis on important writers representing different periods and genres; primarily discussion; writing intensive. P or C-WRI 111 or exemption from WRI 111. (D)

**ENG 185. Studies in Global Literature. (3 h)**

Emphasis on important writers representing different periods and genres; primarily discussion; writing intensive. P or C-WRI 111 or exemption from WRI 111. (D)

**ENG 190. Literary Genres. (3 h)**

Emphasis on poetry, fiction, or drama; primarily discussion; writing intensive. P or C-WRI 111 or exemption from WRI 111. (D)

**ENG 265. British Literature before 1800. (3 h)**

Gateway course for the major. Significant works from the British literary tradition before 1800 and introduction to key ideas in literary interpretation. Required for all majors. (D)

**ENG 266. British Literature 1800 to the Present. (3 h)**

Gateway course for the major. Significant works from the British and postcolonial literary traditions since 1800. Either ENG 266 or ENG 275 required for all majors. (D)

**ENG 275. American Literature. (3 h)**

Gateway course for the major. Significant works from the American literary tradition. Either ENG 275 or ENG 266 required for all majors. (D)

**ENG 290. Foundations in Literary Criticism. (3 h)**

Considers figures and schools of thought significant in the history of literary criticism. Required for all majors. (D)

**ENG 298. WFU Press Internship. (1.5-3 h)**

Semester-length practical experience in literary publishing while working at WFU Press, the premier publisher of Irish poetry in North America. Interns learn aspects of editorial review, production, proofreading, marketing, and promotion. Students must submit a formal application through WFU Press before registering ([wfupress.wfu.edu](http://wfupress.wfu.edu)). Pass/Fail. Does not count toward the English Major or Minor. May be repeated once for credit.

**ENG 299. Individual Study. (1.5-3 h)**

Independent study with faculty guidance. Granted upon departmental approval of petition presented by a qualified student. May be repeated once for credit.

**ENG 301. Individual Authors. (3 h)**

Study of selected work from an important American or British author. May be repeated once for credit. (D)

**ENG 302. Ideas in Literature. (3 h)**

Study of a significant literary theme in selected works. May be repeated when the course is taught by a different professor on a different topic. (D)

**ENG 304. History of the English Language. (3 h)**

A survey of the development of English syntax, morphology, and phonology from Old English to the present, with attention to vocabulary growth.

**ENG 305. Old English Language and Literature. (3 h)**

An introduction to the Old English language and a study of the historical and cultural background of Old English literature, including Anglo-Saxon and Viking art, runes, and Scandinavian mythology. Readings from Beowulf and selected poems and prose. Fulfills pre-1800 British literature requirement. (D)

**ENG 308. Beowulf. (3 h)**

Intensive study of the poem; emphasis on language, translation skills and critical context. Fulfills pre-1800 British literature requirement. P-ENG 305 or POL. (D)

**ENG 309. Modern English Grammar. (3 h)**

A linguistics approach to grammar study. Includes a critical exploration of issues such as grammatical change and variation, the origins and effects of grammar prescriptions/proscriptions, the place of grammar instruction in education, and the politics of language authority. Also listed as LIN 309.

**ENG 310. The Medieval World. (3 h)**

Examines theological, philosophical, and cultural assumptions of the Middle Ages through the reading of primary texts. Topics may include Christian providential history, drama, devotional literature, the Franciscan controversy, domestic life, and Arthurian romance. Fulfills pre-1800 British literature requirement. (CD - Depending on topic covered.) (D)

**ENG 311. The Legend of Arthur. (3 h)**

The origin and development of the Arthurian legend in France and England, with emphasis on the works of Chretien de Troyes and Sir Thomas Malory. Fulfills pre-1800 British literature requirement. (D)

**ENG 312. Medieval Poetry. (3 h)**

The origin and development of poetic genres and lyric forms of medieval vernacular poetry. Fulfills pre-1800 British literature requirement. (D)

**ENG 313. Roots of Song. (3 h)**

Interdisciplinary investigation of poetry and song in the Middle Ages and early Renaissance. Study of the evolution of poetic and musical genres and styles, both sacred and secular. Students must complete a project or projects on the technical or theoretical aspects of early song. Fulfills pre-1800 British literature requirement. Also listed as MUS 283. (D)

**ENG 315. Chaucer. (3 h)**

Emphasis on The Canterbury Tales and Troilus and Criseyde, with some attention to minor poems. Consideration of literary, social, religious, and philosophical background. Fulfills pre-1800 British literature requirement. (D)

**ENG 320. British Drama to 1642. (3 h)**

British drama from its beginning to 1642, exclusive of Shakespeare. Representative cycle plays, moralities, Elizabethan and Jacobean tragedies, comedies, and tragicomedies. Fulfills pre-1800 British literature requirement. Also listed as THE 320. (D)

**ENG 323. Shakespeare. (3 h)**

Thirteen representative plays illustrating Shakespeare's development as a poet and dramatist. Fulfills pre-1800 British literature requirement. Also listed as THE 323. (D)

**ENG 325. 16th-Century British Literature. (3 h)**

Concentration on the poetry of Spenser, Sidney, Shakespeare, Wyatt, and Drayton, with particular attention to sonnets and The Faerie Queene. Fulfills pre-1800 British literature requirement. (D)

**ENG 326. Studies in English Renaissance Literature. (3 h)**

Selected topics in Renaissance literature. Consideration of texts and their cultural background. Fulfills pre-1800 British literature requirement. May be repeated once for credit pending approval of instructor. (D)

**ENG 327. Milton. (3 h)**

The poetry and selected prose of John Milton, with emphasis on Paradise Lost. Fulfills pre-1800 British literature requirement. (D)

**ENG 328. 17th-Century British Literature. (3 h)**

Poetry of Donne, Herbert, Vaughan, Marvel, Crashaw; prose of Bacon, Burton, Browne, Walton. Consideration of religious, political, and scientific backgrounds.

**ENG 330. Restoration and 18th-Century British Literature. (3 h)**

Representative poetry and prose, exclusive of the novel, 1660-1800, drawn from Dryden, Behn, Swift, Pope, Johnson, and Wollstonecraft. Consideration of cultural backgrounds and significant literary trends. Fulfills pre-1800 British literature requirement. (D)

**ENG 333. Jane Austen. (3 h)**

An intensive study of the works of British novelist Jane Austen, and her cultural contexts.

**ENG 335. 18th-Century British Fiction. (3 h)**

Primarily the fiction of Defoe, Richardson, Fielding, Smollett, Sterne, and Austen. Fulfills pre-1800 British literature requirement. (D)

**ENG 336. Restoration and 18th-Century British Drama. (3 h)**

British drama from 1660 to 1780, including representative plays by Dryden, Etherege, Wycherley, Congreve, Goldsmith, and Sheridan. Fulfills pre-1800 British literature requirement. Also listed as THE 336. (D)

**ENG 337. Studies in 18th-Century British Literature. (3 h)**

Selected topics in 18th-century literature. Consideration of texts and their cultural background. Fulfills pre-1800 British literature requirement. (D)

**ENG 338. Studies in Gender and Literature. (3 h)**

Thematic and/or theoretical approaches to the study of gender in literature. (D)

**ENG 339. Studies in Sexuality and Literature. (3 h)**

Thematic and/or theoretical approaches to the study of sexuality in literature. (D)

**ENG 340. Studies in Women and Literature. (3 h)**

Women writers in society. (D)

**ENG 341. Literature and the Environment. (3 h)**

Studies of the relationship between environmental experience and literary representation. (D)

**ENG 344. Studies in Poetry. (3 h)**

Selected topics in poetry. (D)



**ENG 345. Studies in Fiction. (3 h)**

Selected topics in fiction. (D)

**ENG 346. Studies in Theatre. (3 h)**

Selected topics in drama. (D)

**ENG 347. Modern English and Continental Drama and the London Stage. (3 h)**

Explores the works of major playwrights of England and Europe from 1875 to the present. May also include contemporary production of classic plays. Emphasizes plays currently being presented in London theatres. Also listed as THE 266. Offered in London. (D)

**ENG 350. British Romantic Poets. (3 h)**

A review of the beginnings of Romanticism in British literature, followed by study of Wordsworth, Coleridge, Byron, Keats, and Shelley; collateral reading in the prose of the period. (D)

**ENG 351. Studies in Romanticism. (3 h)**

Selected topics in European and/or American Romanticism with a focus on comparative, interdisciplinary, and theoretical approaches to literature. (D)

**ENG 353. 19th-Century British Fiction. (3 h)**

Representative major works by Dickens, Eliot, Thackeray, Hardy, the Brontës, and others. (D)

**ENG 354. Victorian Poetry. (3 h)**

A study of Tennyson, Browning, Hopkins, and Arnold or another Victorian poet. (D)

**ENG 356. Literature of the Caribbean. (3 h)**

Readings include significant works by authors from the Caribbean and authors writing about the Caribbean. Critical, historical, and cultural approaches are emphasized. All texts are in English. (CD, D)

**ENG 357. Studies in Chicano/a Literature. (3 h)**

Writings by Americans of Mexican descent in relation to politics and history. Readings in literature, literary criticism, and socio-cultural analysis. Fulfills the American literature requirement. Also listed as AES 357. (CD, D)

**ENG 358. Postcolonial Literature. (3 h)**

A survey of representative examples of postcolonial literature from geographically diverse writers, emphasizing issues of politics, nationalism, gender and class. (CD, D)

**ENG 359. Studies in Postcolonial Literature. (3 h)**

Examination of themes and issues in post-colonial literature, such as: globalization, postcolonialism and hybridity, feminism, nationalism, ethnic and religious conflict, the impact of the Cold War, and race and class. (CD, D)

**ENG 360. Studies in Victorian Literature. (3 h)**

Selected topics, such as development of genres, major authors and texts, and cultural influences. Readings in poetry, fiction, autobiography, and other prose. (D)

**ENG 361. Literature and Science. (3 h)**

Literature of and about science. Topics will vary and may include literature and medicine, the two culture debate, poetry and science, nature in literature, the body in literature. (D)

**ENG 362. Irish Literature in the Twentieth Century. (3 h)**

A study of modern Irish literature from the writers of the Irish Literary Renaissance to contemporary writers. Course consists of overviews of the period as well as specific considerations of genre and of individual writers. (D)

**ENG 363. Studies in Modernism. (3 h)**

Selected issues in Modernism. Interdisciplinary, comparative, and theoretical approaches to works and authors. (D)

**ENG 364. Advanced Studies in Literary Criticism. (3 h)**

Consideration of certain figures and schools of thought significant in the history of literary criticism. Builds on ENG 290 Foundations in Literary Criticism. (D)

**ENG 365. 20th-Century British Fiction. (3 h)**

A study of Conrad, Lawrence, Joyce, Forster, Woolf, and later British writers, with attention to their social and intellectual backgrounds. (D)

**ENG 366. James Joyce. (3 h)**

The major works by James Joyce, with an emphasis on *Ulysses*. (D)

**ENG 367. 20th-Century English Poetry. (3 h)**

A study of 20th-century poets of the English language, exclusive of the United States poets, are read in relation to the literary and social history of the period. (D)

**ENG 368. Studies in Irish Literature. (3 h)**

The development of Irish literature from the 18th century through the early 20th century in historical perspective, with attention to issues of linguistic and national identity. (D)

**ENG 369. Modern Drama. (3 h)**

Main currents in modern drama from 19th-century realism and naturalism through symbolism and expressionism. After an introduction to European precursors, focus is on representative plays by Wilde, Shaw, Synge, Yeats, O'Neill, Eliot, Hellman, Wilder, Williams, Hansberry, and Miller. (D)

**ENG 370. American Literature to 1820. (3 h)**

Origins and development of American literature and thought in representative writings of the Colonial, Revolutionary, and Federal periods. Fulfills the American literature requirement. (D)

**ENG 371. American Ethnic Literature. (3 h)**

Introduction to the diverse field of literature about race and racial formation as experienced by African Americans, Asian Americans, Jewish Americans, Chicana/o, Latinx, and Native American writers. The course introduces key genealogies of thought in critical race theory, intersectionality, diaspora, identity, alienation, assimilation, multiculturalism, stereotyping, systemic racism, and social justice. Fulfills the American literature requirement. (CD, D)

**ENG 372. American Romanticism. (3 h)**

Writers of the mid-19th century, including Emerson, Thoreau, Hawthorne, and Melville. Fulfills the American literature requirement. (D)

**ENG 373. Literature and Film. (3 h)**

Selected topics in the relationship between literature and film, such as film adaptations of literary works, the study of narrative, and the development of literary and cinematic genres. (D)

**ENG 374. American Fiction before 1865. (3 h)**

Novels and short fiction by such writers as Brown, Cooper, Irving, Poe, Hawthorne, Melville, Stowe, and Davis. Fulfills the American literature requirement. (D)

**ENG 375. American Drama. (3 h)**

A historical overview of drama in America, covering such playwrights as Boucicault, O'Neill, Hellman, Wilder, Williams, Inge, Miller, Hansberry, Albee, Shepard, Norman, Mamet, and Wilson. Fulfills the American literature requirement. Also listed as THE 375. (D)



**ENG 376. American Poetry before 1900. (3 h)**

Readings and critical analysis of American poetry from its beginnings to the end of the 19th century, including Bradstreet, Emerson, Longfellow, Melville, and Poe, with particular emphasis on Whitman and Dickinson. Fulfills the American literature requirement. (D)

**ENG 377. American Jewish Literature. (3 h)**

Survey of writings on Jewish topics or experiences by American Jewish writers. Explores cultural and generational conflicts, responses to social change, the impact of the Shoah (Holocaust) on American Jews, and the challenges of language and form posed by Jewish and non-Jewish artistic traditions. Fulfills the American literature requirement. (CD, D)

**ENG 378. Literature of the American South. (3 h)**

Study of Southern literature from its beginnings to the present, with emphasis upon such major writers as Tate, Warren, Faulkner, O'Connor, Welty, and Styron. Fulfills the American literature requirement. (D)

**ENG 379. Literary Forms of the American Personal Narrative. (3 h)**

Reading and critical analysis of autobiographical texts in which the ideas, style, and point of view of the writer are examined to demonstrate how these works contribute to an understanding of pluralism in American culture. Representative authors may include Hurston, Wright, Kingston, Angelou, Wideman, Sartre, Chuang Hua, Crews, and Dillard. Fulfills the American literature requirement. (D)

**ENG 380. American Fiction 1865 to 1915. (3 h)**

Study of such writers as Twain, James, Howells, Crane, Dreiser, Wharton, and Cather. Fulfills the American literature requirement. (D)

**ENG 381. Studies in African-American Literature. (3 h)**

Reading and critical analysis of selected fiction, poetry, drama, and other writings by American authors of African descent. Fulfills the American literature requirement. (CD, D)

**ENG 382. Modern American Fiction, 1915 to 1965. (3 h)**

Includes such writers as Stein, Lewis, Anderson, Hemingway, Fitzgerald, Faulkner, Dos Passos, Wolfe, Wright, Ellison, Agee, Flannery O'Connor, and Pynchon. Fulfills the American literature requirement. (D)

**ENG 385. 20th-Century American Poetry. (3 h)**

Readings of modern American poetry in relation to the literary and social history of the period. Fulfills the American literature requirement. (D)

**ENG 386. Directed Reading. (1.5-3 h)**

A tutorial in an area of study not otherwise provided by the department; granted upon departmental approval of petition presented by a qualified student. May be repeated once for credit.

**ENG 387. African-American Fiction. (3 h)**

Selected topics in the development of fiction by American writers of African descent. Fulfills the American literature requirement. Also listed as AES 387. (CD, D)

**ENG 388. Honors in English. (3 h)**

A conference course centering upon a special reading requirement and a thesis requirement. For senior students wishing to graduate with "Honors in English."

**ENG 389. African-American Poetry. (3 h)**

Readings of works by American poets of African descent in theoretical, critical, and historical contexts. Fulfills the American literature requirement. Also listed as AES 389. (CD, D)

**ENG 390. The Structure of English. (3 h)**

An introduction to the principles and techniques of modern linguistics applied to contemporary American English. Also listed as LIN 390.

**ENG 391. Studies in Postmodernism. (3 h)**

Interdisciplinary, comparative, and theoretical approaches to works and authors.

**ENG 393. Multicultural American Drama. (3 h)**

Examines the dramatic works of playwrights from various racial and ethnic communities such as Asian American, Native American, African American, and Latino. The course includes consideration of issues, themes, style, and form. Fulfills the American literature requirement. Also listed as THE 376. (CD, D)

**ENG 394. Contemporary Drama. (3 h)**

Considers experiments in form and substance in plays from Waiting for Godot to the present. Readings will cover such playwrights as Beckett, Osborne, Pinter, Stoppard, Churchill, Wertebaker, Albee, Shepard, Mamet, Wilson, Soyinka, and Fugard. Also listed as THE 372. (D)

**ENG 395. Contemporary American Literature. (3 h)**

A study of post-World War II American poetry and fiction by such writers as Bellow, Gass, Barth, Pynchon, Lowell, Ashbery, Ammons, Bishop, and Rich. Fulfills the American literature requirement. (D)

**ENG 396. Contemporary British Fiction. (3 h)**

Study of the British novel and short story, including works by Rushdie, Amis, Winterson and Ishiguro. (D)

**ENG 397. Internship in the Major. (1.5 h)**

Internship that involves both hands-on experience and academic study. Students will partner with a literature faculty member to integrate work in the community and engagement with his or her academic plan of study. P-POI.

**ENG 398. English Studies and the Professions. (1.5 h)**

A practicum course focused on career design and career planning, specific to career options in humanities fields. The course will broaden awareness of career opportunities available to English majors and minors. Pass-Fail Only. Cannot be repeated.

## Entrepreneurship (ENT)

**ENT 105. The Entrepreneurial Experience: From Mindset to Entrepreneurial Identity. (1 h)**

An exploration and analysis of the entrepreneurial lifecycle from ideation, concept development, launching and building a company, and eventually exiting, with specific focus on developing an entrepreneurial mindset and forming an entrepreneurial identity. The course features guest speakers who have founded companies in various industries.

**ENT 200. Foundations of Entrepreneurship: Identifying and Cultivating Valuable Ideas. (3 h)**

Examines and cultivates the notion of creativity from the perspective of value creation, inquiry, opportunity recognition, and idea generation. Topics examined through writing and design assignments, group projects, and discussions include awareness, empathy, risk, ethics, self-agency, and social engagement with the express objective of identifying and creating valuable ideas. Provides an introduction to the practice of entrepreneurship and design thinking, along with the development of an entrepreneurial mindset.

**ENT 201. Evidence-Based Entrepreneurship: Developing Validated Concepts. (3 h)**

Examines how individuals use entrepreneurial skills to craft innovative responses to societal and market needs. Using customer discovery and other evidence-based entrepreneurial methods, students participate in the progression of ideas into validated concepts. P or C-ENT 200.

**ENT 203. Writing for a Social Purpose. (3 h)**

Combines writing, service learning, and entrepreneurship approaches in communication by partnering students with a local nonprofit organization to provide a range of writing solutions in print and online. Also listed as JOU 325. P- JOU 270 or POI.

**ENT 205. Scaling the Entrepreneurial Venture: From Concept to Harvest. (3 h)**

Explores the stage in the entrepreneurial lifecycle where validated concepts transition to established ventures. The course is designed to provide exposure to topics critical to success, such as how to scale the venture past early adopters to meet the needs of more mainstream customers. It covers key functional domains including entrepreneurial marketing, finance, fundraising, leadership, and strategy. P - ENT 201.

**ENT 250. Communication in Entrepreneurial Settings. (3 h)**

This course examines the contemporary workplace, including startup organizations, freelance work, and gig work. We examine how communication underpins organizational culture, teamwork, mentoring and networking, diversity programming and more. Reading and discussion are balanced with opportunities to engage and apply tools for workplace success. Also listed as COM 250.

**ENT 301. Topics in Entrepreneurship. (1.5, 3 h)**

Seminar and/or lecture courses in select topics related to entrepreneurship. May be repeated if course title differs.

**ENT 302. Topics in Entrepreneurship. (1.5, 3 h)**

Seminar and/or lecture courses in select topics related to entrepreneurship. May be repeated if course title differs.

**ENT 303. Topics in Entrepreneurship. (1.5, 3 h)**

Seminar and/or lecture courses in select topics related to entrepreneurship. May be repeated if course title differs.

**ENT 304. Topics in Entrepreneurship. (1.5, 3 h)**

Seminar and/or lecture courses in select topics related to entrepreneurship. May be repeated if course title differs.

**ENT 305. Topics in Entrepreneurship. (1.5, 3 h)**

Seminar and/or lecture courses in select topics related to entrepreneurship. May be repeated if course title differs.

**ENT 306. Topics in Entrepreneurship. (1.5, 3 h)**

Seminar and/or lecture courses in select topics related to entrepreneurship. May be repeated if course title differs.

**ENT 310. Arts Entrepreneurship. (3 h)**

Introduces entrepreneurial processes and practices in the visual arts, theater, dance, music, and creative writing. Seminar format includes encounters with arts entrepreneurs, investigation of case studies, and research in new and evolving models for creative application of entrepreneurial practices in the arts.

**ENT 312. Management in the Visual Arts. (3 h)**

Provides art students with the skills, experiences, and frameworks for understanding the role that the visual arts play within the national and international economy. Also listed as ART 297. P-Junior or senior standing and POI.

**ENT 313. Whole Person Creativity. (3 h)**

Interactive studio/seminar that introduces students to the concepts and practices of creativity, innovation, design, and sustainability. Through whole-person engagement, architectural design processes, and place-making studies, students explore the impact of human behaviors on all areas of life and society along a continuum of local to global.

**ENT 315. Nonprofit Arts and Education Entrepreneurship: Promotion of Latin-American and Latino Visual Culture. (3 h)**

Explores entrepreneurship in promoting Latin-American and U.S. Latino cultures through educational and artistic events and fundraisers on campuses and in the community. Students gain hands-on experience by assisting in the production of Wake Forest exhibitions, events promoting Latin-American and U.S. Latino heritage and culture, related community fundraisers, and nonprofit organizations.

**ENT 320. Social Entrepreneurship. (3 h)**

Interdisciplinary seminar that introduces the concepts of entrepreneurship with a focus on entrepreneurial activities that further the public good through the integration of core concepts of social and cultural values and ecological sustainability.

**ENT 321. Social Entrepreneurship and the Humanities: Innovation, Public Engagement, and Social Change. (3 h)**

Introduction to the role played by humanities in social entrepreneurship, exploring the premise that norms can be developed for the application of the humanities, and that the knowledge derived in this process can empower and be a tool in community-based engagement and social change. Course includes a social entrepreneurial project in the local community. Also listed as HMN 295.

**ENT 322. Religion, Poverty, and Social Entrepreneurship. (3 h)**

Interdisciplinary study of major themes in religion, poverty reduction, and social entrepreneurship. Focus and community emphasis may vary with instructor. Also listed as REL 344.

**ENT 323. Social Entrepreneurship Summer Program. (3 h)**

This trans-disciplinary, 4-week program explores the role of social entrepreneurship in society today and challenges students, through a rigorous and integrated curriculum to master the entrepreneurial process involved in furthering the public good through community-based engagement and social change. P-POI.

**ENT 326. Telling Women's Lives: Writing about Entrepreneurs, Activists, and Community Leaders. (3 h)**

This course will use an interdisciplinary approach to address fundamental issues of female leadership by examining recent developments in long- and short-form narratives about women (biography, essays, profiles) and employing journalistic tools to interview and write profiles of women entrepreneurs, activists, and community leaders. Also listed as WGS 326.

**ENT 330. Entrepreneurship for Scientists. (3 h)**

Introduces students to the routes by which scientific discoveries and new technologies find their way to the market place. Covers ideation, determining market potential, business planning, intellectual property, entrepreneurship ethics, venture capital, and venture incubation.

**ENT 335. Renewable Energy Entrepreneurship: Science, Policy, and Economics. (4 h)**

This team-taught course provides overviews of the most important renewable energy sources. Explores the science, policy and economic issues related to renewable energy and investigates the potential for new markets, new products, and new entrepreneurial opportunities in the marketplace. P - Junior standing and Div V requirements, or POI.

**ENT 350. Internships in Entrepreneurial Studies. (1.5, 3 h)**

Offers the opportunity to apply knowledge in an entrepreneurial for-profit or not-for-profit environment. Requirements include a course journal and a comprehensive report that showcase the student's specific achievements and analyze the quality of his or her experience. P - POI.

**ENT 351. Green Technologies: Science and Entrepreneurship. (2, 3 h)**

Introduces the science and entrepreneurship opportunities of select green technologies. Students learn in the fundamental science associated with energy use and renewable energy and selected green technologies. Students also learn the basics of starting a new business and develop a business plan to bring a "green product" to the market. P-CHM 341 or ENT 201 or POI.

**ENT 357. Bioinspiration and Biomimetics. (3 h)**

Explores the ways in which biological mechanisms can inspire new technologies, products, and businesses. The course combines basic biological and entrepreneurial principles. Also listed as BIO 357.

**ENT 380. America at Work. (3 h)**

Examines the American entrepreneurial spirit within the broader context of industrial, social, and economic change from the colonial period to the present and explores the social and cultural meanings attached to work and workers, owner and innovators, businesses and technologies, management and leadership. Also listed as HST 380. (CD)

**ENT 384. Design-Thinking and High Performance Teams. (3 h)**

In this experiential class, we study the evolution of high-performance teams in design-thinking environments. At its core, design thinking is an approach to innovative problem solving that balances art, science, and business perspectives in realistic and highly impactful ways. In this course we develop the ability to participate in and lead high-performance teams within a design-thinking environment. The course involves an action-learning project that applies the perspectives of anthropology, history, political science, communication, and psychology, among others, in solving a real-world problem. Also listed as BEM 384.

**ENT 391. Independent Study in Entrepreneurship. (1.5, 3 h)**

An independent project involving entrepreneurship or social enterprise carried out under the supervision of the faculty member. P - POI.

**ENT 392. Independent Study in Entrepreneurship. (1.5, 3 h)**

An independent project involving entrepreneurship or social enterprise carried out under the supervision of a faculty member. P - POI.

**ENT 394A. Student Entrepreneurship in Action. (1.5, 3 h)**

This course is built around the real-time challenges and learning that occur as the students in the class launch, run, build, and sell or transition their venture. Promotes intense rigorous intellectual exchange in a seminar setting in which all will not only participate in critical thinking and analysis, but also in problem solving and leadership. Course may be repeated for credit. P - POI.

**ENT 394B. Student Entrepreneurship in Action. (1.5, 3 h)**

This course is built around the real-time challenges and learning that occur as the students in the class launch, run, build, and sell or transition their venture. Promotes intense rigorous intellectual exchange in a seminar setting in which all will not only participate in critical thinking and analysis, but also in problem solving and leadership. Course may be repeated for credit. P - POI.

**ENT 399. Startup Lab. (3 h)**

Startup Lab is designed to help students take high potential ideas and, after learning best practices on evidence-based entrepreneurship, apply lean startup methodology to their own startup. Students will learn key aspects of building an early stage company such as how to make crucial early stage sales, how to build brand loyalty with early stage customers, key aspects of accounting, finance, and human resources that apply to startups, and how to lead a team. This is a practicum and much of the learning is application-oriented and focuses directly on the startup or the startup team. P-POI.

## Environmental Program (ENV)

**ENV 201. Environmental Issues. (3 h)**

Topics include environmental literature, environmental history, human populations, resource management, pollution, global change, environmental activism and environmental ethics.

**ENV 202. Environmental Solutions. (3 h)**

Learn how to improve our environment by identifying and exploring innovative environmental solutions. Counts towards Environmental Minor requirements.

**ENV 203. Leadership for Sustainability. (3 h)**

Sustainability Ambassadors are student peer educators for sustainability. The mission of the Sustainability Ambassadors program is to support the development of sustainable behaviors among the student population at Wake Forest University. Through outreach activities, campaign development, event planning, sustainability assessments, and presentations, Sustainability Ambassadors are able to reach Wake students in a variety of settings. They help fulfill the Office's mission of empowering others to assume leadership roles in sustainability.

**ENV 220. Introduction to Earth Science. (3 h)**

Oceans, weather, climate, earthquakes, volcanoes, soil, and space all play important roles in our dynamic planet. Students will explore the lithosphere, hydrosphere, atmosphere, and biosphere, and gain a deeper understanding of how the Earth operates as a whole. Also listed as BIO 220. P-requires BIO 150, 150L, 160, and 160L if taken as BIO 220.

**ENV 230. Environmental Ethics. (3 h)**

Explores the complex relationships between ecosystems, cultures, and related moral imaginations. It reviews various ways in which humans have imagined the natural world and their ethical obligations toward it (if any).

**ENV 301. Topics in Environmental Studies. (1-4 h)**

Seminar and/or lecture courses in selected topics, some involving laboratory instruction. May be repeated if the course title differs.

**ENV 302. Topics in Environmental Studies. (1-4 h)**

Seminar and/or lecture courses in selected topics, some involving laboratory instruction. May be repeated if the course title differs.

**ENV 303. Topics in Environmental Studies. (1-4 h)**

Seminar and/or lecture courses in selected topics, some involving laboratory instruction. May be repeated if the course title differs.

**ENV 304. Topics in Environmental Studies. (1-4 h)**

Seminar and/or lecture courses in selected topics, some involving laboratory instruction. May be repeated if the course title differs.

**ENV 305. Topics in Environmental Studies. (1-4 h)**

Seminar and/or lecture courses in selected topics, some involving laboratory instruction. May be repeated if the course title differs.

**ENV 306. Topics in Environmental Studies. (1-4 h)**

Seminar and/or lecture courses in selected topics, some involving laboratory instruction. May be repeated if the course title differs.

**ENV 391. Individual Study. (1.5 h)**

A field study, internship, project or research investigation carried out under the supervision of a member of the environmental program faculty. Pass/fail or for a grade at the discretion of the instructor. Pass/fail is not an option if used as an elective for the environmental science or environmental studies minor.

**ENV 392. Individual Study. (1.5 h)****ENV 394. Environmental Internship. (1-4 h)**

Supervised internships with governmental agencies, nonprofit organizations and businesses.

**ENV 395. Sustainability Lab/Clinic. (4 h)**

Focuses on practical solutions to sustainability problems, and includes the use of makerspace, the fabrication lab, and the visualization lab.

## Film Studies (FLM)

**FLM 101. Internship in Film and Media Studies I. (1.5-3 h)**

Individual internships in film studies, to be approved, supervised, and evaluated by an appropriate member of the film studies faculty. The nature and extent of the internship will determine whether both sections can be taken simultaneously. Pass/fail only. P-POI.

**FLM 102. Internship in Film and Media Studies II. (1.5-3 h)**

Individual internships in film studies, to be approved, supervised, and evaluated by an appropriate member of the film studies faculty. The nature and extent of the internship will determine whether both sections can be taken simultaneously. Pass/fail only. P-POI.

**FLM 201. Film & Media Studies Practicum. (1.5-3 h)**

Practicum in film and media studies, to be approved, supervised, and evaluated by an appropriate member of the film studies faculty. May be repeated for up to six hours. Pass/fail only.

**FLM 286. Individual Study in Film and Media Studies. (1.5-3 h)**

Directed study in an area of interest to be approved and supervised by a faculty adviser. P-POI.

**FLM 390. Special Topics in Film and Media Studies. (1.5-3 h)**

Selected topics in film studies. May be repeated for credit if topic varies.

## Finance (FIN)

**FIN 203. Applied Quantitative Analysis for Finance. (3 h)**

Provides the basic mathematical and statistical tools needed for the study of applied finance. Topics: multiple regression, analysis of residuals and F-tests; analysis of time-series data; risk, preference and utility theory; stochastic processes; and applied optimization. P-BEM 201 and FIN 231 with a C or better; C-FIN 232; or POI.

**FIN 231. Principles of Finance. (3 h)**

Survey course examining the fundamentals of financial decision-making and including topics such as the time value of money, security valuation (corporate debt and equity pricing), risk and return, financial statement analysis, capital budgeting, and the cost of capital. Financial decision-making is developed within the context of domestic and international institutions and markets. P-ACC 111, P or C-ECN 150.

**FIN 232. Intermediate Finance. (3 h)**

Required for all finance majors and is intended as preparation for upper level electives. It provides an examination of financial decision-making under uncertainty stressing practical applications of technology. Topics include yield curves and interest rate risk; the uses and risks of derivative securities; capital structure and the impact of leverage; statistical estimation of the cost of capital for the firm and its projects; financial statement forecasting (pro forma); and discounted cash flow valuation of the firm. The course incorporates electronic spreadsheet applications (Excel) in problem solving, statistics and financial modeling. P-BEM 201 and FIN 231 with C or better; C-FIN 203; or POI.

**FIN 233. Equity Investments. (3 h)**

The Equity Investments course exposes students to equity research, portfolio formation and analysis, equity security valuation, and stock selection for portfolio construction. The course uses accounting, fundamental analysis and a discounted cash flow framework to value equity securities. P-FIN 203 and FIN 232 with a C or better. May be taken as a co-requisite with FIN 203 and/or FIN 232 with POI.

**FIN 234. International Finance. (3 h)**

The course examines the impact of international financial economics on markets and the management of both domestic and multinational firms. Emphasis is placed upon institutional and environmental factors influencing trade, foreign exchange, and capital acquisition and allocation. P-FIN 203 and FIN 232 with a C or better; or POI.

**FIN 235. Selected Topics in Finance. (3 h)**

Identifies the most current topics and practices in the dynamic global financial industry and covers them in detail; may also explore a more narrow finance topic in depth. Focuses on the application of leading-edge concepts and ideas in the financial services and/or banking industries. A seminar approach requires active student participation in the identification, elaboration and discussion of course materials. Oral and written skills are emphasized. P - FIN 203 and FIN 232 with a C or better. May be taken as co-requisite with FIN 203 and/or FIN 232 with POI.

**FIN 236. Private Equity. (3 h)**

Covers the full life cycle of private equity. The course covers buyout, venture capital and growth capital investing, both from an investing and managerial point of view. While being relevant to students interested in becoming private equity professionals, the course is also applicable to those who might interact with private equity firms from the view of being an investment banker, a funding source, a participant in acquisitions or divestitures (such as a seller or management partner) or as an institutional investor in private equity funds. P - FIN 203 and FIN 232 with a C or better; or POI.

**FIN 237. Financial Markets and Institutions. (3 h)**

The course provides students with an understanding of the structure and functioning of US and international financial markets. Topics covered in the class: banking theory, the roles of traditional and non-traditional financial intermediaries, the impact of securitization, international financial competition, financial system stability and financial regulation. P-FIN 203 and FIN 232 with a C or better; or POI.

**FIN 238. Financial Modeling. (3 h)**

This course is intended to strengthen your knowledge in Finance and provide you with practical skills for implementing financial models in a spreadsheet. While the specific tool used in this class is Microsoft Excel, the techniques can be generalized and applied to various implementation tools. The subject matter is a blend of Corporate Finance and Investments with a heavier weighting placed on Corporate Finance.

**FIN 239. Financial Data Analytics. (3 h)**

This course serves as an introduction to many aspects of financial technology and data. Topics include machine learning, data visualization, Excel pivot tables and dashboards, monte carlo simulation, encryption, safety and ethics when working with financial data, Python, and introductions to traditional programming languages. Students will become familiar with and use Bloomberg terminals, Excel, Python, Morningstar, and Crystal Ball to analyze, visualize, and manipulate data. Students will apply these skills to work with real world financial data solving problems they are likely to see outside of the classroom. P-FIN 203 and 232 with a C or better; or POI.



**FIN 331. Corporate Finance. (3 h)**

The course explores the practical application of corporate financial theory. The strategic financial decisions of firms are analyzed with regard to capital budgeting, capital structure, dividend policy, seasoned equity offerings, rights issues, the application of option theory to corporate finance strategy, and real options. P-FIN 203 and 232 with a C or better; or POI.

**FIN 332. Banking and Investment Banking. (3 h)**

Examines corporate restructuring and how commercial and investment banks facilitate the transactions. Investigates the impact of strategic financial alterations on the performance of the firm's assets. Examines IPO's, mergers and acquisitions, divestitures, spin-offs, and capital acquisition. Focuses on the application of financial modeling and the use of discounted cash flow valuation to analyze managerial decisions under uncertainty. P-FIN 203 and 232 with a C or better; or POI.

**FIN 333. Advanced Finance. (3 h)**

Focuses on maximizing the firm's market value in a dynamic environment by exploring the interplay between (1) its operating and strategic decisions, (2) the evaluation of the firm and its strategies by the investment community, and (3) the functioning of capital markets and economies within which the firm operates. The course integrates results from relevant research with the effective practice of financial management by business professionals. P —FIN 203 and FIN 232 with a C or better, or POI.

**FIN 335. Financial Derivatives. (3 h)**

Explores the pricing and uses of derivatives; the role of market participants; how market structures and practices facilitate risk transfer; and the uses of derivatives for hedging. Covers futures/forwards, options, and swaps, the three most important types of financial derivatives. P-FIN 203 and 232 with a C or better; or POI.

**FIN 336. Fixed Income and Financial Engineering. (3 h)**

Provides an introduction to interest rate risk management, the nature of fixed income markets, the structure and underlying economic rationale for various structured products including collateralized debt obligations, and the role of financial engineering in fixed income markets and risk management. P-FIN 203 and 232 with a C or better; or POI.

**FIN 338. Real Estate Finance. (3 h)**

Focuses on concepts and techniques used to value and finance income-producing property investments. Provides students a critical perspective for making financial decisions about real estate. The nature of real estate risk, at both the level of the individual project and the investment portfolio. Class sessions will rely on case discussions as we consider how economic characteristics of the property and the local market, motives of different actors, and institutional arrangements interact to shape decision-making in real estate. P-FIN 203 and 232 with a C or better; or POI.

**FIN 381. Individualized Reading and Research. (1-3 h)**

Directed study in specialized areas of finance. P-POI.

## First Year Experience (FYE)

**FYE 101. The College Transition. (1 h)**

Exploration of issues related to academic success, living in community, and wellbeing in the transition to college. Emphasizes principles, understanding, and skills to promote a successful college transition. Pass/fail only. First-year students only.

## First Year Seminar (FYS)

**FYS 100. First Year Seminar. (3 h)**

First year seminars are a basic requirement for graduation and are designed to enhance each student's academic and social integration into Wake Forest. They foster intellectual interchange, both written and oral, and encourage examination of opposing viewpoints through reading, writing, and debate of issues in a small group setting. Seminars are offered in most academic departments and programs.

## French (FRH)

**FRH 111. Elementary French. (3 h)**

The first course in a two-semester sequence designed to help students to understand and speak French and also learn to read and write French at the elementary level.

**FRH 112. Elementary French. (3 h)**

The second course in a two-semester sequence designed to help students to understand and speak French and also learn to read and write French at the elementary level. P-FRH 111.

**FRH 113. Intensive Elementary French. (4 h)**

Review of the material from 111-112 in one semester, intended for students whose preparation for 153 is inadequate. Credit not given for both 113 and 111 or 112. Offered in the fall semester only. By placement or faculty recommendation.

**FRH 153. Intermediate French. (4 h)**

Intermediate-level course covering the structure of the language, developing students' reading, writing, and conversation skills and preparing them for oral and written discussion of readings in French 212 and 213. Note that 153 and other 153 marked courses (153F, 154) are mutually exclusive. P-FRH 111 and FRH 112, or 113, or placement.

**FRH 154. Accelerated Intermediate French. (3 h)**

Intensive, intermediate-level course intended for students with a stronger background than required of 153 students. It offers the opportunity to develop further their reading, writing, and conversation skills and prepare them for oral and written discussion of readings in French 212 and 213. Offered in the fall semester. P-POI or placement.

**FRH 196. French Across the Curriculum. (1.5 h)**

Coursework in French done as an adjunct to specially designated courses throughout the college curriculum. May be taken for grade or Pass/Fail. P-POI.

**FRH 198. Internship in French Language. (1.5, 3 h)**

A French-language project taken under faculty supervision in conjunction with an off-campus service commitment or internship. Includes, but is not limited to, vocabulary building, keeping a journal, and reading professional material. Pass/Fail only. P-POD.

**FRH 199. Service Learning in French Language. (1.5 h)**

Experiential learning that links classroom instruction and community service done as an adjunct to specially-designated courses throughout the French curriculum. Pass/Fail only. May be repeated for credit. P-POI.

**FRH 212. Exploring the French and Francophone World. (3 h)**

Explores significant cultural expressions from the French and Francophone world. Emphasizes both the development of competence in speaking, reading and writing French, and understanding how particular French-speaking societies have defined themselves. Credit allowed for only one: FRH 212, FRH 213, or FRH 214. P-FRH 153 or equivalent.



**FRH 213. Encounters: French and Francophone Literature and Culture. (3 h)**

Encounters with significant literary expressions from the French-speaking world. Emphasizes the advancement of competence in speaking, reading and writing, and the analysis of literature in its cultural contexts. Credit allowed for only one: FRH 212, FRH 213, or FRH 214. P-FRH 153 or equivalent.

**FRH 214. Encounters: French and Francophone Literature and Culture (Honors). (3 h)**

Encounters with significant literary expressions from the French-speaking world. Emphasizes the advancement of competence in speaking, reading and writing, and the analysis of literature in its cultural contexts. Coursework in the honors sections focuses more intently on written and oral expression and on reading strategies. Intended for students with a strong background in French. Credit allowed for only one: FRH 212, FRH 213, or FRH 214. P-Placement or POI.

**FRH 216. Studies in French and Francophone Literature and Culture. (3 h)**

Study of the ways in which a given theme appears in a selection of literary and other cultural works in French. Emphasis on reading and discussion of selected texts. Specific thematic focus changes every semester. May be repeated once for credit when topics vary. Required for the major and minor. P-FRH 212 or 213 or 214; or POI. (CD)

**FRH 315. Introduction to French and Francophone Studies. (3 h)**

Orientation in French and francophone cultures through their historical development and their various forms. Includes the study of literary, historical, and social texts, and possibly films, art, and music. Required for the major and minor. Offered only once each academic year. (A student taking 350 as part of the Dijon program would receive credit for this course. Please see the description of the Dijon program for details.) P-FRH 200-level course or equivalent. (CD)

**FRH 319. Composition and Review of Grammar. (4 h)**

Systematic review of the fundamental principles of comparative grammar, with practical training in writing idiomatic French. Required for the major and minor. P-FRH 200-level course or equivalent.

**FRH 320. French Conversation. (3 h)**

A language course based on cultural materials. Designed to perfect aural skills and oral proficiency by systematically increasing vocabulary and reinforcing command of specific grammatical points. Short written works are assigned. Exclusively for second-language learners. P-FRH 200-level course or equivalent.

**FRH 321. Introduction to Translation. (3 h)**

Introduction to translation strategies through theory and practice. Emphasis is placed on translation of a broad variety of texts, including different literary and journalistic modes. Attention is given to accuracy in vocabulary, structures, forms, and to cultural concerns. P-FRH 319 or POI.

**FRH 322. French Phonetics. (3 h)**

Study of the principles of standard French pronunciation, with emphasis on their practical application as well as on their theoretical basis. P-POI.

**FRH 323. Advanced Grammar and Stylistics. (3 h)**

Review and application of grammatical structures for the refinement of writing techniques. Emphasis is on the use of French in a variety of discourse types. Attention is given to accuracy and fluency of usage in the written language. P-FRH 319 or POI.

**FRH 329. French for Business Communication. (3 h)**

Introduces the use of French in everyday professional interactions. Emphasizes oral and written practices, reading, and French business culture, as well as the job search and cross-cultural awareness. Exclusively for second-language learners. P - FRH 200 level course or equivalent.

**FRH 330. French for Management. (3 h)**

Explores oral and written French communication and develops intercultural skills in areas such as human resources, entrepreneurship, and marketing through case studies and current events. P-FRH 319, 329, or POI.

**FRH 341. Rise of French. (3 h)**

The development of French from an early Romance dialect to a world language. Study of ongoing changes in the language's sounds, grammar, and vocabulary system within its historical and cultural context. P-FRH 319 or POI.

**FRH 342. Structure of French. (3 h)**

Analysis of linguistic features of French including syntax, phonology, and morphology. P-FRH 319 or POI.

**FRH 343. Modern French. (3 h)**

Study of the features of contemporary French including colloquial French contrasting grammar, vocabulary, and pronunciation with standard forms. P-FRH 319 or POI.

**FRH 345. Language and Society. (3 h)**

Introduction to sociolinguistic issues relating to the French language and its role in societies around the world. P-FRH 319 or POI.

**FRH 350. Studies in French Language and Culture. (6 h)**

Familiarization with the language and culture of France and its people. Study of French civilization, practice in writing, participation in French family life, lectures on selected topics, and excursions to points of historical and cultural significance. Satisfies FRH 315 requirement for major or minor. Offered in Dijon. Grade mode only.

**FRH 351. Advanced Oral and Written French. (4 h)**

Study of grammar, composition, pronunciation, and phonetics, with extensive practice in oral and written French. Offered in Dijon. Grade mode only.

**FRH 352. Contemporary France. (3 h)**

Study of present-day France, including aspects of geography and consideration of social, political, and educational factors in French life today. Offered in Dijon.

**FRH 353. Studies in French Art. (2 h)**

Lectures and field trips in French painting, sculpture, and architecture, concentrating on the 19th and 20th centuries. Offered in Dijon.

**FRH 360. Cinema and Society. (3 h)**

Study of French and Francophone cultures through cinema. Readings and films may include film as artifact, film theory, and film history. P-FRH 216, 315 or POI. (CD)

**FRH 361. Special Topics in French and Francophone Film Studies. (3 h)**

In-depth study of particular aspects of French and/or francophone cinema. Topics may include film adaptations of literary works, cinematographic expressions of social or political issues, selected filmmakers, theories, genres, historical periods, or cinematographic trends. May be repeated for credit when topics vary. P-FRH 360 or POI.

**FRH 363. Trends in French and Francophone Poetry. (3 h)**

Study of the development of the poetic genre with analysis and interpretation of works from each period. P-FRH 216, 315 or POI.

**FRH 364. French and Francophone Prose Fiction. (3 h)**

A broad survey of prose fiction in French, with critical study of representative works from a variety of periods. P-FRH 216, 315 or POI.

**FRH 365. French and Francophone Drama. (3 h)**

Study of the chief trends in dramatic art in French, with reading and discussion of representative plays from selected periods. P-FRH 216, 315 or POI.

**FRH 370. Seminar in French and Francophone Studies. (3 h)**

In-depth study of particular aspects of selected literary and cultural works from different genres and/or periods. A capstone course for third- and fourth-year students only. Required for major. May be repeated for credit when topics vary. P-FRH 216, 315 or POI. (CD)

**FRH 374. Topics in French and Francophone Culture. (3 h)**

Study of selected topics in French and/or francophone culture. Works will be drawn from different fields (sociology, politics, art, history, music, cinema) and may include journalistic texts, films, historical and other cultural documents. May be repeated for credit when topics vary. P-FRH 216, 315 or POI.

**FRH 375. Special Topics in French and Francophone Literature. (3 h)**

Selected themes and approaches to French and francophone literature transcending boundaries of time and genre. May be repeated for credit when topics vary. P-FRH 216, 315 or POI.

**FRH 381. French Independent Study. (1.5-3 h)**

P-POD.

**FRH 382. Internship in French Studies. (1.5, 3 h)**

Individual internships in a bilingual business or professional setting, to be approved, supervised, and evaluated by an appropriate faculty adviser. Pass/Fail only. P-POD.

**FRH 390. Directed Reading. (1.5 h)**

Required for departmental honors in French Studies.

**FRH 391. Directed Research. (3 h)**

Extensive reading and/or research to meet individual needs. Required for departmental honors in French Studies. P-POD.

## German (GER)

**GER 001. German for Reading Knowledge. (1.5 h)**

For graduate students and motivated undergraduate students who will need a reading knowledge of German in their academic fields (Divinity School, Religious Studies, Philosophy, Music, etc.). Introductory training in understanding/translating a variety of texts from German into English, including grammar and vocabulary overview. No prior knowledge of German necessary. Level: Beginner to Intermediate. Taught online. Pass/Fail.

**GER 002. German for Reading Knowledge. (1.5 h)**

For graduate students and motivated undergraduate students who will need a reading knowledge of German in their academic fields (Divinity School, Religious Studies, Philosophy, Music, etc.). Continuation of grammar and vocabulary overview from GER 001, culminating in a personalized translation project. Includes German proficiency test samples. For students who have completed GER 001, or who have received instructor permission. Level: Intermediate to Advanced. Taught online. Pass/Fail.

**GER 100. German Pre-Orientation Tour. (1 h)****GER 110. Intensive Elementary German. (4 h)**

One-semester course covering the material of GER 111 and 112. For students whose preparation for GER 153 is inadequate or who have demonstrated proficiency in another language. Not open to students who have had GER 111 or 112. Offered only at the Flow House in Vienna.

**GER 111. Elementary German. (4 h)**

Introduction to German language and culture. First of a two-semester sequence.

**GER 112. Elementary German. (4 h)**

Introduction to German language and culture. Second of a two-semester sequence.

**GER 113. Intensive Elementary German. (4 h)**

A one-semester course covering the material of German 111 and 112. For students whose preparation for German 153 is inadequate or who have demonstrated proficiency in another language. Not open to students who have had German 111 or 112.

**GER 150. Intermediate German. (4 h)**

Review of principles of grammar; reading of selected prose and poetry. Offered only at the Flow House in Vienna. P - GER 110, GER 112, or GER 113.

**GER 153. Intermediate German. (4 h)**

Review of basic grammar; reading of selected prose and poetry. P-GER 110, GER 112 or GER 113.

**GER 208. Introduction to German Short Fiction. (3 h)**

Lecture and discussion in German. Offered only in Jena, Germany. P-GER 150 or 153 or equivalent.

**GER 210. Encounters with the German-Speaking World. (3 h)**

Formative events and figures of German-speaking cultures and the literary and political texts that define their identity. P-GER 150 or 153.

**GER 212. Introduction to German Short Fiction. (3 h)**

Introduction to short works of German literature. P-GER 150 or 153 or equivalent.

**GER 214. Masterpieces of Austrian Literature. (3 h)**

Study of masterpieces of Austrian literature of the 19th, 20th, and 21st centuries. Lecture and discussion in German. Offered only at the Flow House in Vienna P-GER 150 or 153 or equivalent.

**GER 317. Composition and Grammar Review. (3 h)**

Review of the fundamentals of German grammar with intensive practice in translation and composition. Required for majors and minors. Offered in fall. P-200-level course or POI.

**GER 318. German Conversation. (3 h)**

Vocabulary for everyday situations, fluency and pronunciation, discussion of various topics from easy to advanced, listening exercises, free speaking, oral presentations. P-200-level course or POI.

**GER 319. Advanced Writing and Stylistics. (3 h)**

Emphasis on improving and expanding writing skills and vocabulary acquisition. Introduction to writing in different genres and contexts, such as blogs, reports, summaries, opinion pieces, short stories, memoirs, emails, newspaper articles, and fairy tales. Includes a creative writing component, relevant grammar topics, and readings in Young Adult Literature. P-200-level course or POI.

**GER 320. German Culture and Civilization I. (3 h)**

Survey of German culture and civilization from prehistoric times to 1848. Conducted in German. P-200-level course or POI. (CD)

**GER 321. German Culture and Civilization II. (3 h)**

Survey of German culture and civilization from 1848 to the present, with emphasis on contemporary Germany. Conducted in German. P - 200-level course or POI. (CD)

**GER 322. Internship in German Language. (0.5-3 h)**

May be repeated for a total of 6 hours, only 3 of which may count towards the major or minor. Pass/Fail only. P- GER 317 or POI.

**GER 329. German for Professional Purposes I. (3 h)**

Emphasis on social market economy, writing resumes, the European Union, job ads and job interviews, current topics in German business, oral proficiency, business correspondence, grammar review, business etiquette, banking, and financing. P-GER 317 or POI.

**GER 330. German for Professional Purposes II. (3 h)**

Prepares students for the internationally acknowledged exam Wirtschaftsdeutsch als Fremdsprache, which is offered at the end of the semester. Other topics include: writing a business plan, the structure of German companies, current topics in German business, oral proficiency, business correspondence, and business theory. P-GER 329 or POI.

**GER 350. German-Jewish Literature and Culture. (3 h)**

An examination of the German literary representation of Jews and Judaism in the last two centuries. Through text by both Jewish and non-Jewish authors, the course explores the nationalistic, economic, and racial motivations behind anti-Semitism, as well as Jewish self-awareness within the German-speaking culture. Topics to be covered include the Enlightenment, 19th-century nationalism, and Holocaust. The course culminates with works by recent German-Jewish authors. P-200-level course or POI.

**GER 370. Individual Study. (1-3 h)**

Readings on selected topics in literature or current events not ordinarily covered in other courses. May be repeated once for major/minor elective credit. P - 200-level course and POI.

**GER 380. German Literature before 1700. (3 h)**

Survey of German literature of the Middle Ages, Reformation, and Baroque eras; emphasizes the chivalric period, Martin Luther, and the Baroque period. Offered in fall. P-200-level course or POI.

**GER 381. German Literature from 1700-1815. (3 h)**

Selected works from the Enlightenment, the Storm and Stress period, the poetry and major dramas of Goethe and Schiller, and German Romanticism. Offered in fall. P - 200-level course or POI.

**GER 383. German Literature from 1815-1900. (3 h)**

Study of selected works from the Realist period and subsequent Naturalist movement, with attention to their historical and social contexts. Offered in fall. P-200-level or POI.

**GER 385. German Literature from 1900 to Present. (3 h)**

Intensive study of representative works of major German, Austrian, and Swiss authors of the 20th and 21st centuries. Offered in fall. P - 200-level course or POI. (CD)

**GER 387. Honors in German. (2.5 h)**

Conference course in German literature or culture. A major research paper is required. Designed for candidates for departmental honors.

**GER 388. Honors in German. (2.5 h)**

Conference course in German literature or culture. A major research paper is required. Designed for candidates for departmental honors.

**GER 399. Seminar in the Major. (3 h)**

Intensive examination of a selected genre or special topic to be determined by the instructor. Intensive practice in critical discourse, including discussion and an oral presentation in German. Introduction to literary scholarship and research methodology leading to a major research paper. Required for all majors. May be repeated. Offered in spring. P-GER 350, 380, 381, 383, 385 or POI.

## German Studies (GES)

**GES 100. German Pre-Orientation Tour. (1 h)****GES 331. Weimar Germany. (3 h)**

Art, literature, music, and film of Weimar Germany, 1919-1933, in historical context. Also listed at HST 318.

**GES 335. German Film. (3 h)**

Survey of German cinema from the silent era to the present.

**GES 336. Special Topics in German Film. (3 h)**

Examination of a topic, movement, or director (to be determined by instructor).

**GES 337. Myth and National Identity Formation. (3 h)**

Explores the philosophical, social, religious, and political background of Germany and Austria in the context of the Nibelung cycle. Students read selected works of Tacitus, medical epics, medieval poetry, Herder, Wagner, Nietzsche, and Adorno. (D)

**GES 340. German Masterworks in Translation. (3 h)**

Examines selected works of German, Austrian, and Swiss fiction in English translation by such writers as Goethe, Schiller, Kafka, Mann, and Schnitzler. Literary periods, genres, and authors vary according to instructor. Can also be offered online in summer. (D)

**GES 341. Austrian Literature in Translation. (3 h)**

Examines the literature of Austria from the decline of the Habsburg Empire to the present day. Intended for current and/or prospective German major or minors. (D)

**GES 345. History of the German Language. (3 h)**

Survey of the development of the German language from prehistoric times to modern day German. Topics include: From Indo-European to Germanic, phonetical and lexical changes of the German language, Old High German, Middle-High German, Early New High German, and Modern Standard German. No prior knowledge of linguistics necessary.

**GES 350. Fin de Siècle Vienna. (3 h)**

Survey of major developments in Viennese art, music, literature, and society from roughly 1889 to 1918. Important figures to be discussed are Mahler, Schoenbert, Klimt, Schiele, Schnitzler, Musil, Freund, and Herzl. Offered only at the Flow House in Vienna. (D)

**GES 351. German-Jewish Literature and Culture. (3 h)**

Explores the history of relations, cross-cultural influences, and prejudices between German Jews and Christians in literature from the Middle Ages to the present. Texts and discussions will also draw attention to pertinent contemporary issues, such as various forms of intolerance and the complexity and malleability of religious identity. (D)

**GES 390. German Women Writers. (3 h)**

Examination of selected works by women authors. Literary periods, genres, and authors vary according to instructor. (D)

**GES 391. Germanic Myths and Monsters. (3 h)**

Examines myths and monsters in medieval and modern discourse of the German-speaking countries. Students read selected works such as the Edda, medieval epics and romances, as well as nineteenth-and twentieth-century authors. P - 200 level course or equivalent. (D)

**GES 393. Luther. (3 h)**

Examines the social political, and religious background of Germany on the eve of the Reformation, traces the formative (sometimes legendary) events of Luther's life, and explores several of his most important tracts, his translation of the Bible, and his more notorious confrontations and opponents. (D)

**GES 394. German Myths, Legends and Fairy Tales. (3 h)**

Study of German myths, legends and fairy tales since the Middle Ages and their role in the formation of German national identity. (D)

**GES 395. Special Topics in German Studies. (3 h)**

Individual topics vary by instructor. (D)

**GES 396. The German Novel. (3 h)**

Introduction to novels by German, Swiss, and Austrian authors. (D)

**GES 397. Intellectual History of Weimar. (3 h)**

Examines the philosophical, political and literary works that gave rise to the mythical status of Weimar as the intellectual heart of Germany. Students read selected works by Luther, Goethe, Schiller, Fichte and the Jena Romantics. (D)

## Greek (GRK)

**GRK 111. Elementary Greek. (3 h)**

Introduction to the language; provides a foundation for reading the ancient authors. P-POD.

**GRK 112. Elementary Greek. (3 h)**

Introduction to the language; provides a foundation for reading the ancient authors. P-POD.

**GRK 113. Intensive Elementary Greek. (3 h)**

Accelerated introduction to the language; provides a foundation for reading the ancient authors. Not open to students who have received credit GRK 111-112. C-GRK 113L.

**GRK 113L. Intensive Elementary Greek Lab. (2 h)**

Concentration on sight-reading and composition in Greek. Must be taken in the same semester as GRK 113.

**GRK 153. Intermediate Greek. (3 h)**

Review of grammar; readings in classical authors. P-Greek 112 or equivalent.

**GRK 154. Intensive Intermediate Greek. (3 h)**

Review of grammar in the context of reading classical authors. P - 113 or equivalent. C-GRK 154L.

**GRK 154L. Intensive Intermediate Greek Lab. (2 h)**

Concentration on sight-reading and composition in Greek. Must be taken in the same semester as GRK 154.

**GRK 201. Intermediate Greek. (3 h)**

Review of grammar; readings in classical authors. P-GRK 153.

**GRK 211. Introduction to Attic Prose. (3 h)**

Selections from the dialogues of Plato or other Attic prose. P-GRK 153, 154 or equivalent.

**GRK 312. Greek Poetry. (3 h)**

Selections from the Iliad and the Odyssey or from didactic and lyric poetry. P - Greek 211 or equivalent.

**GRK 321. Greek Readings. (1.5, 3 h)**

Designed to meet individual needs and interests. Course may be repeated for a total of six credit hours. P-POI.

**GRK 325. Advanced Grammar and Composition. (3 h)**

Intensive work in morphology and syntax, with practice in composition and stylistic analysis of selected readings. P-GRK 211 or equivalent.

**GRK 331. Greek Biblical Texts. (3 h)**

Selections from Greek Biblical texts. P-GRK 211 or equivalent.

**GRK 341. Greek Tragedy. (3 h)**

Close study of a selected tragedy or tragedies. P-GRK 211 or equivalent.

**GRK 342. Greek Comedy. (3 h)**

Close study of a selected comedy or comedies of Aristophanes or Menander. P-GRK 211 or equivalent.

**GRK 391. Honors in Greek. (1.5 h)**

Directed research for honors paper. P-POD.

**GRK 392. Honors in Greek. (1.5 h)**

Directed research for honors paper. P-POD.

## Health and Exercise Science (HES)

**HES 100. Lifestyles and Health. (1 h)**

A lecture course that deals with the effect of lifestyle behaviors on various health outcomes, including cardiovascular disease, cancer, and sexually-transmitted diseases.

**HES 101. Exercise for Health. (1 h)**

A laboratory course on physical fitness that covers weight control, cardiovascular endurance, muscular strength, and flexibility.

**HES 112. Sports Proficiency. (1 h)****HES 120. Fitness Activities. (1 h)**

This course is designed to promote health and well-being through a variety of exercise and skill based activities. The course focuses on providing the knowledge and skills needed for lifetime participation in these activities. Pass/fail only. May be repeated for up to 4 hours of credit if activities differ.

**HES 232. Emergency Medical Training. (3 h)**

Lectures and practical experiences in preparation for responding to medical emergencies, including: patient assessment; airway management; cardiopulmonary resuscitation; O2 therapy; management of shock; trauma and environmental emergencies; and head/spine/musculoskeletal injuries. Clinical hours and Saturday classes are required. EMT certification is offered, attendance is required for State and National Certification testing. Pass/fail only.

**HES 262. Statistics in the Health Sciences. (3 h)**

Basic statistics with an emphasis on application to research in the health sciences. Students are introduced to graphics and statistical software for statistical analysis. (QR)

**HES 310. Clinical Externship. (1, 2 h)**

Application of theory and methods of solving problems in a specialized area according to the student's immediate career goals. Open only to majors. Pass/Fail only. P-POI.

**HES 311. Clinical Internship. (1, 2 h)**

A semester experience in the campus rehabilitation or clinical research programs. Work includes active participation with individuals and groups with clinical conditions, such as heart disease, pulmonary disease, osteoarthritis, and obesity. Focus is on multiple intervention strategies, in conjunction with participation in physiologic monitoring of patients during therapeutic sessions. Open only to majors. Pass/Fail only. P-POI.



**HES 312. Exercise and Health Psychology. (3 h)**

A survey of the psychological antecedents of exercise and selected topics in health psychology with particular attention to wellness, stress, the biobehavioral basis of coronary heart disease, and the psychodynamics of rehabilitative medicine. P-HES 262 or POI.

**HES 320. Mindfulness Meditation in Behavioral Medicine. (2 h)**

Study of contemplative science and in the realm of behavioral medicine. Content includes recent evidence from neuroscience and outcome research on both mindfulness-based stress reduction and mindfulness-based cognitive therapy. Taught in a seminar format with laboratory experience. Pass/Fail only. P-POI.

**HES 350. Human Physiology. (3 h)**

A lecture course which presents the basic principles and concepts of the function of selected systems of the human body, with emphasis on the muscular, cardiovascular, pulmonary, and nervous systems.

**HES 350L. Human Physiology Lab. (1 h)**

A laboratory course that coincides with HES 350 human physiology lecture course. P or C-HES 350.

**HES 351. Nutrition in Health and Disease. (3 h)**

Lecture course which presents the principles of healthy nutrition including an understanding of nutrients and their metabolism as well as the impact of nutrition on weight management and chronic diseases. P-HES 350 or POI.

**HES 352. Human Gross Anatomy. (4 h)**

Lecture/laboratory course in which the structure and function of the musculoskeletal, neuromuscular, pulmonary, and cardiovascular systems are studied using dissected human cadavers.

**HES 353. Physiology of Exercise. (3 h)**

A lecture course which presents the concepts and applications of the physiological response of the human body to physical activity. Acute and chronic responses of the muscular and cardiorespiratory systems to exercise are examined. P-HES 350 or POI.

**HES 354. Assessment Techniques in Health and Exercise Science. (3 h)**

A lecture/laboratory course to develop clinical skills and knowledge in the assessment of health in areas of exercise physiology, nutrition/metabolism, biomechanics/neuromuscular function, and health psychology. The laboratory will emphasize use of instrumentation and analysis/interpretation of data collected on human subjects. P-HES 262, HES 350 and 352; or POI. (QR)

**HES 355. Exercise Programming. (1.5 h)**

Lecture/laboratory course which presents the scientific principles of safe and effective exercise prescription for fitness programs. P-HES 350 or POI.

**HES 360. Epidemiology. (3 h)**

Introduction to basic epidemiologic principles and methods used to assess disease occurrence and association between risk factors and health outcomes in human populations. Emphasis is placed on modifiable exposures (e.g. diet and physical activity) and chronic disease outcomes. P - An applied statistical methods course, such as ANT 380, BIO 380, BEM 202, HES 262, PSY 311, SOC 271, or STA 111; or POI. (QR)

**HES 362. Experimental Design for Clinical and Translational Health Science Research. (3 h)**

Examination of scientific methods as applied to Clinical and Translational Health Science Research. Emphasis is placed on understanding the strengths and weaknesses for a broad range of study designs that can be found in the health sciences. Special emphasis is placed on randomized controlled trials, bioethics, the interpretation of data within the context of internal and external validity, as well as skills in reviewing the scientific literature. P - An applied statistics course such as ANT 380, BIO 380, BEM 201, HES 262, PSY 311, SOC 271, or STA 111; or POI.

**HES 370. Biomechanics of Human Movement. (3 h)**

Study of the mechanical principles which influence human movement, sport technique, and equipment design. P-HES 352 or POI.

**HES 372. Anatomy Dissection Laboratory. (2 h)**

A laboratory course that involves human cadaver dissection of the musculoskeletal, neuromuscular, pulmonary, and cardiovascular systems. Open only to majors. P-POI.

**HES 375. Advanced Physiology of Exercise. (3 h)**

A lecture course which provides an in-depth examination of the physiological mechanisms responsible for both the acute and chronic changes which occur with exercise. Included are metabolic and cellular changes in response to exercise, as well as the alterations of the major organ systems from acute and chronic exercise training. P - HES 353 or POI.

**HES 376. Interventions in Behavioral Medicine. (3 h)**

Seminar course providing an overview of the development, implementation, and evaluation of interventions within the context of behavioral medicine. Attention is given to behavior change theories that have served as the framework for physical activity and weight loss interventions. Hands-on experience is included with current interventions through peer counseling and case study analysis.

**HES 382. Individual Study. (1-2 h)**

Independent study directed by a faculty adviser. The student must consult the adviser before registering for this course. Open only to majors. May be repeated for up to 4 hours of credit. P-POI.

**HES 384. Special Topics in Health and Exercise Science. (1.5-3 h)**

Intensive investigation of a current scientific research topic in health or exercise science with focus on a specific topic.

**HES 386. Honors Research. (2 h)**

Directed study and research in preparation for a major paper on a subject of mutual interest to the student and faculty honors adviser. Taken only by candidates for departmental honors. P-POI, approval of departmental honors committee, and prior completion of a 2-hour Individual Study.

**HES 388. Field Internship in Health Sciences. (3 h)**

An extensive hands-on experience in a discipline of the health sciences related to the student's career goals. This internship occurs outside the Wake Forest University community. Open only to majors. Pass/Fail only. P-POI.

## Health Policy & Administration (HPA)

**HPA 150. Introduction to Public Health. (3 h)**

Survey of the basic structure of the health care system in the United States. Includes discussion of current issues of public policy toward health, organization of health care delivery, and health system reform. Serves as the introduction to the interdisciplinary minor in health policy and administration. Offered fall semester only.



**HPA 250. Internship in Health Policy and Administration. (3 h)**

A semester experience in a health care policy or health care administration organization. Students will work in conjunction with a director who is a researcher on a public health science research project or with an administrator in health care delivery. Students gain relevant practical experience that builds on prior coursework and provides insight into public health policy issues. Open only to senior health policy and administration students. P-HPA 150, completion of one other course, and POI.

**HPA 262. Special Topics. (3 h)**

Seminar and/or lecture courses in selected topics. May be repeated if topic differs.

## Hindi-Urdu (HNU)

**HNU 111. Elementary Hindi-Urdu I. (3 h)**

Introduction to modern Hindi-Urdu. Designed for students with no knowledge of the language. Focus is on developing reading, writing, and conversation skills for practical contexts. Instruction in the Devanagari and Nastaliq scripts and the cultures of Indian and Pakistan. Fall only.

**HNU 112. Elementary Hindi-Urdu II. (3 h)**

Continued instruction in modern Hindi-Urdu. Students with previous background may place into this course with the instructor's permission. Focus is on developing reading, writing, and conversation skills for practical contexts. Instruction in the Devanagari and Nastaliq scripts and the cultures of India and Pakistan. Spring only. P-HNU 111.

**HNU 140. Introduction to the Hindi script (Devanagari). (1 h)**

Introduction to the Devanagari writing system used in Hindi, as well as other South Asian languages, including Nepali and Sanskrit. Includes an overview of the Hindi-Urdu sound system and language. Students with prior proficiency in spoken Hindi or Urdu may complete this course in preparation for entering Intermediate Hindi-Urdu (HNU 153 and 201).

**HNU 141. Introduction to the Urdu script (Nastaliq). (1 h)**

Introduction to the Nastaliq writing system used in Urdu, as well as Persian, Punjabi, and Kashmiri. Includes an overview of the Hindi-Urdu sound system and language. Students with prior proficiency in spoken Hindi or Urdu may complete this course in preparation for entering Intermediate Hindi-Urdu (HNU 153 and 201).

**HNU 153. Intermediate Hindi-Urdu I. (3 h)**

Second year of modern Hindi-Urdu. Students with comparable proficiency may place into this course with the instructor's permission. Focus is on building oral and written communication skills in a range of contexts. Exploration of the cultures of India and Pakistan through discussions of authentic materials. Instruction in Devanagari and Nastaliq scripts. Fall only. P-HNU 112.

**HNU 201. Intermediate Hindi-Urdu II. (3 h)**

Continued intermediate instruction in spoken and written Hindi-Urdu. Students with previous background may place into this course with the instructor's permission. Focus is on building oral and written communication skills in a range of contexts. Exploration of the cultures of India and Pakistan through discussions of authentic materials. Instruction in Devanagari and Nastaliq scripts. Spring only. P-HNU 153.

**HNU 287. Special Topics in Hindi-Urdu Language or Cultural Studies. (1-3 h)**

Selected themes and approaches to Hindi-Urdu language, culture, literature, drama, and/or film. May be repeated for credit when topic varies.

**HNU 288. Individual Study in Hindi-Urdu Language or Cultural Studies. (1-3 h)**

Course may be repeated for a total of 6 credit hours. P-POI.

## History (HST)

**HST 101. Western Civilization to 1700. (3 h)**

Survey of ancient, medieval, and early modern history to 1700. Focus varies with instructor. (CD, D)

**HST 102. Europe and the World in the Modern Era. (3 h)**

Survey of modern Europe from 1700 to the present. Focus varies with instructor. (CD, D)

**HST 103. World Civilizations to 1500. (3 h)**

Survey of the ancient, classical and medieval civilizations of Eurasia with a brief look at American and sub-Saharan societies. Focus varies with instructor. (CD, D)

**HST 104. World Civilizations since 1500. (3 h)**

Survey of the major civilizations of the world in the modern and contemporary periods. Focus varies with instructor. (CD, D)

**HST 105. Africa in World History. (3 h)**

Examines the continent of Africa from prehistory to the present in global perspective, as experienced and understood by Africans themselves. (CD, D)

**HST 106. Medieval World Civilizations. (3 h)**

Provides an overview of world civilizations in the period generally understood as "medieval," from 600 C.E. to 1600 C.E. The course examines cultures and societies in East Asia, India, Africa, and the Americas as well as Europe and asks if there is such a thing as a "medieval" world history. What characteristics do these widely differing cultures and geographic areas share, and where do they differ? (CD, D)

**HST 107. Middle East & the World. (3 h)**

Examines, in its global context, the Middle East region from the inception of Islam in the 7th century to the 20th century. Combines an introduction to Islamic civilization in its central lands with a close study of its interaction with other societies. (CD, D)

**HST 108. Americas and the World. (3 h)**

Examines North, Central and South America in global perspectives from premodern times to the present with particular attention to political, economic, social, and cultural developments and interactions. (CD, D)

**HST 109. Asia and the World. (3 h)**

Overview of Asia (primarily East, Southeast, and South Asia) since 1500 with emphasis on economic, diplomatic, cultural, and religious interactions with the outside world. (CD, D)

**HST 110. Atlantic World since 1500. (3 h)**

Examines the major developments that have linked the civilizations bordering the Atlantic Ocean from 1500 to the present. Themes include exploration; commerce; European colonization and indigenous responses; disease; religious conversion and revivalism; mestizo and creole culture; imperial warfare; enlightenment; revolution; slavery and abolition; extractive economies; nationalism; 'scientific racism,' invented traditions; the black diaspora and negritude; decolonization; the Cold War; segregation and apartheid; dictatorship; neoliberalism; and globalization. (CD, D)

**HST 111. Ancient World Civilizations. (3 h)**

Explores ancient civilizations from the perspective that each civilization is a reflection of local circumstances and the distinctive worldview that shaped its institutions to become a complex, state-organized society. (CD, D)

**HST 112. Big History: A History of the Cosmos and Humanity's Place In It. (3 h)**

Beginning 13.7 billion years ago and drawing on the sciences, social sciences, and history, this course offers a contemporary understanding of how the physical, social, and mental worlds people inhabit came to be. Its effort to integrate disciplines that usually remain unconnected should appeal to those who want to see how the pieces of education fit together. (CD, D)

**HST 113. Health, Disease and Healing in World History. (3 h)**

Examines political, economic, and cultural responses to sickness and disease in global historical context, paying particular attention to the intersection of religion and healing, as well as race, class, and gender, in ancient, medieval, early modern, pre-colonial, colonial, and post-colonial societies. (D)

**HST 114. Gender and Sexuality in World History. (3 h)**

Introduces the global and historical breadth of gender and sexual systems. Foundational and current approaches to cross-cultural historical analysis of masculinity, women's rights, and differences between LGBTQ identities and other models. Also listed as WGS 214. (CD, D)

**HST 119. Venice and the World. (3 h)**

The history of Venice is intertwined with many of the central themes of world history. Students will examine the history of Venice from its foundation to the present day, examining the ongoing reciprocal interactions between the city-state, Europe, and the wider world. Offered in Venice only. (CD, D)

**HST 120. Formation of Europe: Habsburg Empire and its Successor States. (3 h)**

The development of Central and East-Central Europe as a multiethnic unity under the Habsburgs, 1526-1918, and its dissolution into successor states and subsequent interactions, 1918-1989. Offered in Vienna. (D)

**HST 150. United States History. (3 h)**

Survey of U.S. history from the colonial period to the present.

**HST 151. The Golden Age of Burgundy. (1.5 h)**

Burgundian society, culture, and government in the reigns of Philip the Bold, John the Fearless, Philip the Good, and Charles the Rash, 1384-1477. Offered in Dijon.

**HST 161. History Museums. (1.5 h)**

Introduces students to history museums and surveys the major issues involved in the collection and display of historical objects, discusses the impact of social history on museum interpretations, and traces the ethical issues and public controversies stemming from the treatment of historical topics in museum settings.

**HST 162. History of Wake Forest. (1.5 h)**

A survey of the history of Wake Forest from its beginning, including its written and oral traditions. May include a visit to the town of Wake Forest.

**HST 171. Historical Biography. (1.5 h)**

Study of biographies of men and women who have influenced specific histories and civilizations. May be repeated for credit if topic differs.

**HST 172. Historical Novels. (1.5 h)**

The role of the historical past in selected works of fiction. May be repeated for credit if topic varies.

**HST 173. Historical Films. (1.5 h)**

Examines the value of film as a source for understanding the past. Includes viewing and discussing historical films in relation to primary and secondary source texts. May be repeated for credit if topic varies.

**HST 206. The Early Middle Ages. (3 h)**

European history from the end of the ancient world to the mid-12th century, stressing social and cultural developments.

**HST 207. The High Middle Ages Through the Renaissance. (3 h)**

European history from the mid-12th through the early 16th centuries, stressing social and cultural developments.

**HST 209. Europe: From Renaissance to Revolution. (3 h)**

A survey of European history from the 15th to the 18th century. Topics include the voyages of discovery, the military revolution, the formation of the modern state, religious reformation, witchcraft and the rise of modern science, and pre-industrial economic and social structures including women and the family.

**HST 216. General History of Spain. (3 h)**

History of Spain from the pre-Roman period to the present day. Counts as elective for the Spanish major. Offered in Salamanca.

**HST 217. France to 1774. (3 h)**

The history of France from the Paleolithic period to the accession of Louis XVI with particular attention to the early modern period.

**HST 218. France since 1815. (3 h)**

The history of France from the restoration of the monarchy to the Fifth Republic.

**HST 219. Germany to 1871. (3 h)**

Social, economic, and political forces leading to the creation of a single German nation-state out of over 1,700 sovereign and semi-sovereign German states.

**HST 220. Germany: Unification to Unification 1871 to 1990. (3 h)**

The Germans' search for stability and unity in a society riven by conflict and on a continent riven by nationalism.

**HST 221. The British Empire to 1815. (3 h)**

Explores the early history of the British Empire and imperialism until the end of the Napoleonic Wars in 1815, including the Elizabethan conquest of Ireland, global trade and exploration, the foundations of the East India Company, captivity and slavery, and revolution in the Atlantic world, with an emphasis on the place of religion, gender, race, and class in imperial rule.

**HST 222. The British Empire from 1815. (3 h)**

Examines the British Empire and British approaches to imperialism from the end of the Napoleonic Wars in 1815 through to the Brexit crises of the late 2010s. The course considers both formal and informal British influence in Latin America, the Caribbean, Africa, the Middle East and Asia, analyzing the interconnected political, economic, and socio-cultural drivers and outcomes of imperialism, as well as the many anti-imperial movements that developed in response to British rule.

**HST 223. The British Isles to 1750. (3 h)**

Discusses religious reformations in the 16th century; political and scientific experiments in the 17th century; and the commercial revolutions of the 18th century. Examines their effect on the way Englishmen and women conceived of their state, their communities and themselves, exploring social relationships and the changing experience of authority. The course also considers England's relationship to its neighbors, Scotland and Ireland, and these British Isles within the context of early modern Europe.

**HST 224. Great Britain since 1750. (3 h)**

Addresses topics in British history from the Industrial Revolution to New Labour, with attention to how politics and citizenship were linked to imperial power. Explores industrialization, liberalism and their discontents; colonization, decolonization, and immigration; social and urban riot and reform; world war; and the creation of the welfare state and its dismantling. The course also considers Britain's relationship with Ireland and European integration.

**HST 225. History of Venice. (3 h)**

The history of Venice from its origin to the fall of the Venetian Republic. Offered in Venice.

**HST 226. History of London. (1.5-3 h)**

Topographical, social, economic, and political history of London from the earliest times. Lectures, student papers and reports, museum visits and lectures, and on-site inspections. Offered in London.

**HST 228. Georgian and Victorian Society Culture. (3 h)**

Social and economic transformation of England in the 18th and 19th centuries, with particular attention to the rise of professionalism and developments in the arts. Offered in London.

**HST 229. Venetian Society & Culture. (3 h)**

An examination of Venetian society, including the role within Venetian life of music, theatre, the church, and civic ritual. Offered in Venice.

**HST 230. Russia: Origins to 1865. (3 h)**

A survey of the political, social, and economic history of Russia, from its origins to the period of the Great Reforms under Alexander II. Students taking HST 230 cannot receive credit for HST 232/REE 200.

**HST 231. Russia and Soviet Union: 1865 to Present. (3 h)**

A survey of patterns of socio-economic change from the late imperial period to the present, the emergence of the revolutionary movement, and the development of Soviet rule from its establishment to its collapse. Students taking HST 231 cannot receive credit for HST 232/REE 200.

**HST 232. Introduction to Russian and East European Studies. (3 h)**

An interdisciplinary survey of Russia and the Soviet Union, including an examination of society, polity, economy, and culture over time. Also listed as REE 200. Students taking HST 232/REE 200 cannot receive credit for HST 230 or 231. (CD)

**HST 235. The History of European Jewry from the Middle Ages to the Present. (3 h)**

Examines the Jewish historical experience in Europe from the medieval period to the Holocaust and its aftermath. Includes a consideration of social, cultural, economic and political history, and places the particular experience of Jews within the context of changes occurring in Europe from the medieval to the modern period.

**HST 236. The Nazi Holocaust to 1941. (3 h)**

Explores the preconditions and causes of the Nazi Holocaust and situates the Holocaust within the history of European colonial genocide and the rise of totalitarian regimes. Traces the development and radicalism of Nazism within Germany and discusses Nazi efforts to forge a racially pure state from Hitler's ascension to power in 1933 until the invasion of the Soviet Union in 1941. Examines the various ways that Jews and other groups targeted by Nazis responded to the rise of Nazism.

**HST 237. The Nazi Holocaust from 1941. (3 h)**

Examines the systematic attempt to exterminate European Jewry and other groups targeted by Nazi Germany on account of their perceived racial inferiority. In particular examines the period from the 1941 German invasion of the Soviet Union through the end of the war, and discusses the ghettoization of European Jews, the various means of mass murder, and the aftermath of the Holocaust. This class includes an optional trip to the United States Holocaust Memorial Museum in Washington, DC.

**HST 239. Jewish History in the Americas. (3 h)**

Examines the rich history of American Jewry from the period of first settlement to the present. Jews have been present in the Americas since the period of Dutch conquest in the mid-seventeenth century. Over the subsequent three and a half centuries, what was once a distant outpost of the Jewish world has today become a major center, and is home to one of the most diverse, populous, successful, and complicated communities in Jewish history.

**HST 242. Middle East before 1500. (3 h)**

A survey of Middle Eastern history from the rise of Islam to the emergence of the last great Muslim unitary states. The course provides an overview of political history with more in-depth emphasis on the development of Islamic culture and society in the pre-modern era. (CD)

**HST 243. Middle East since 1500. (3 h)**

A survey of modern Middle Eastern history from the collapse of the last great Muslim unitary states to the present day. Topics include the rise and demise of the Ottoman and Safavid empires, socio-political reform, the impact of colonialism, Islamic reform, the development of nationalism, and contemporary social and economic challenges. (CD)

**HST 244. Pre-Modern China to 1850. (3 h)**

Study of traditional China to 1850, with an emphasis on the evolution of political, legal and social institutions and the development of Chinese religion, learning and the arts. (CD)

**HST 245. Modern China since 1850. (3 h)**

Study of modern China from 1850 to the present, focusing on the major political, economic, and cultural transformations occurring in China during this period within the context of modernization, imperialism and (semi) colonialism, world wars and civil wars, revolution and reform, and the ongoing processes of globalization. (CD)

**HST 246. Japan before 1600. (3 h)**

A survey of Japan from earliest times to the coming of Western imperialism, with emphasis on regional ecologies, economic institutions, cultural practice, military organization, political ideology, and foreign relations. (CD)

**HST 247. Japan since 1600. (3 h)**

A survey of Japan in the modern world. Topics include political and cultural revolution, state and empire-building, economic "miracles", social transformations, military conflicts, and intellectual dilemmas. (CD)

**HST 249. Intro to East Asia. (3 h)**

An introduction to the histories and cultures of East Asia, from the earliest times to the present, focusing on China, Korea, Japan, and Vietnam, with some attention to the rest of South-East Asia, and emphasizing ecology and economy, trade and international relations, political ideology, religious belief, and cultural practice. (CD)

**HST 250. Premodern South Asia. (3 h)**

A survey of ancient and medieval South Asia beginning with the Indus Valley civilization to the decline of the Mughal Empire. (CD)

**HST 251. Modern South Asia. (3 h)**

A survey of colonial and post-colonial South Asia beginning with the political conquest of the British East India Company in the mid-18th century until the present. (CD)

**HST 254. American West to 1848. (3 h)**

The first half of a two-semester survey course of the North American West, from roughly 1400 to 1850. Topics include indigenous trade and lifeways, contact, conflict, and cooperation between natives and newcomers, exploration and migration, imperial geopolitical rivalries, and various experiences with western landscapes.

**HST 255. U.S. West from 1848 to the Present. (3 h)**

The second half of a two-semester survey course of the U.S. West, from 1848 to the present. Topics include industrial expansion and urbanization, conflicts with Native Americans, national and ethnic identity formations, contests over natural resources, representations and myths of the West, and religious, cultural, and social diversity.

**HST 256. The U.S. and the World, 1763-1914. (3 h)**

The first half of a two-semester survey on U.S. foreign relations. Major topics explore the economic, political, cultural, and social currents linking the U.S. to Europe, Africa, South America, and Asia between 1763 and 1914. Particular attention is given to the influence of the world system—ranging from empire, war, and migration to industrial competition and economic interdependence—on U.S. diplomacy, commerce, and domestic politics and culture.

**HST 257. The U.S. and the World since 1914. (3 h)**

The second half of a two-semester survey of U.S. foreign relations. Major topics explore the economic, political, cultural and social currents linking the U.S. to Europe, Africa, Latin America, the Middle East and Asia between since 1914. Particular attention is given to the influence of the international system—ranging from hot and cold wars, to decolonization, economic interdependence and transnational businesses and institutions—on U.S. diplomacy, commerce, and domestic politics and culture.

**HST 258. Colonial America. (3 h)**

Surveys and explores the encounters between natives and newcomers in North America between 1492 and 1763. Topics include development of new communities and cultures, as well as the roles warfare, trade, race, religion, and slavery played in the creation of "new worlds for all."

**HST 259. Revolutionary America. (3 h)**

Examines the transformation that unfolded during the struggles for sovereignty in North America between 1760 and 1800. Considers the political upheavals that converted some British colonists into insurgents and explores the unlikely unification of disparate provinces into a confederated republic.

**HST 262. Antebellum America. (3 h)**

Examines the sociocultural, economic, religious, and political transformations of American society from the period after the Revolutionary War through the onset of the American Civil War.

**HST 263. The U.S. Civil War and Reconstruction. (3 h)**

The political, social, and military events of the war and the economic, social, and political readjustments which followed.

**HST 264. U.S. History 1877-1933: Industrialization, Urbanization, and Conflict. (3 h)**

Political, social, and economic developments in the U.S. from 1877 to 1933 with emphasis on industrialization, urbanization, immigration, growth of Big Business, imperialism, Progressive reform, war, depression, and race, class, and gender conflicts.

**HST 265. US History since the New Deal. (3 h)**

Political, social, and economic history of the U.S. since 1933 with emphasis on the Depression, wars at home and abroad, unionism, civil rights movements, countercultures, environmentalism, religion, the Imperial Presidency, and liberalism and conservatism.

**HST 266. The History of the Slave South. (3 h)**

Examines slavery and southern distinctiveness, from the first interactions of Europeans, Native Americans and Africans through the Civil War and Emancipation. (CD)

**HST 267. The Making of the Modern South since the Civil War. (3 h)**

Traces the history of race relations and southern culture, politics, and economics from sharecropping and segregation through political reform, the Civil Rights Movement, and the Republican New South. (CD)

**HST 268. African History to 1870. (3 h)**

Overview of African history prior to the establishment of European colonial rule, covering the period from the 4th century until 1870. Focuses on sub-Saharan Africa and uses case studies in various regions. (CD)

**HST 269. African History since 1850. (3 h)**

Overview of African history, beginning with the period following the abolition of the Trans Atlantic Slave Trade and ending with contemporary challenges of independent African nations. Emphasizes sub-Saharan African perspectives, initiatives, and historical agency. (CD)

**HST 271. African American History to 1870. (3 h)**

Examines the experiences of African-descended people from Africa to America and from slavery to freedom, with each experience - the slave trade, enslavement, and emancipation - marking a fundamental transformation in black lives. (CD)

**HST 272. African American History since 1870. (3 h)**

Examines the experiences of African-descended people from the destruction of slavery to Reconstruction, from rural to urban, and from Jim Crow to Civil Rights, with each experience - emancipation, migration, and enfranchisement - marking a fundamental transformation in black lives. (CD)

**HST 275. Modern Latin America. (3 h)**

Survey of Latin-American history since independence, concentrating on the 20th century. Emphasizes race, gender, revolution, populism, dictatorship, resistance movements, and U.S.-Latin American relations. Examines cultural artifacts from multiple genres. (CD)

**HST 284. Latin America's Colonial Past. (3 h)**

Studies the history of Latin America's colonial past from the precolonial era to the wars of independence in the early 19th century. Topics include: Conquest controversies; autonomy, adaptation, and resistance in indigenous and African communities; sexuality and the Inquisition; and evolving systems of race, caste, and gender. (CD)

**HST 300. History Fin de Siecle Vienna. (3 h)**

Examination of major developments in Viennese culture, politics and society from the 1880s to 1918. Important figures to be discussed may include Mahler, Schoenberg, Klimt, Schiele, Kokoshchka, Schnitzler, Musil, Kafka, Freud and Herzl. Offered only in Vienna.

**HST 304. Travel, History and Landscape in the Mediterranean. (3 h)**

This course considers broader debates about the nature of "Mediterranean" societies in the late medieval and early modern period through case studies of particular places. Topics include cross-cultural cooperation and conflict, travel and travel narratives, the creation of national identities through public history, and contests over development and/or conservation of natural and cultural resources. Offered only in the Mediterranean.



**HST 305. Medieval & Early Modern Iberia. (3 h)**

Examines the variety of Christian, Muslim, and Jewish cultures that flourished on the Iberian peninsula between the years 700 and 1700. Themes include religious diversity and the imposition of orthodoxy, the formation of nation-states and empires, geographic exploration and discovery, and the economics of empire in the early modern period. (CD)

**HST 306. Science, Magic, and Alchemy in Europe, 1400-1700. (3 h)**

Examines scientists and magicians in medieval Europe, who developed theoretical models and practical approaches to understand and to manipulate the natural world. Looks at alchemists, who transformed matter to understand it as well as to make things for practical purposes: metals, gems, medicines, and the philosopher's stone.

**HST 307. Italian Renaissance. (3 h)**

Examination of the economic, political, intellectual, artistic, and social developments in the Italian world from 1350 to 1550. (CD)

**HST 308. World of Alexander the Great. (3 h)**

An examination of Alexander the Great's conquests and the fusion of Greek culture with those of the Near East, Central Asia, and India. Special emphasis placed on the creation of new political institutions and social customs, modes of addressing philosophical and religious issues, as well as the achievements and limitations of Hellenistic Civilization.

**HST 309. European International Relations since World War I. (3 h)**

Surveys European International Relations in the 20th century beyond treaties and alliances to the economic, social, and demographic factors that shaped formal arrangements between states. Covers the impact of new forms of international cooperation, pooled sovereignty, and non-governmental organizations on European diplomacy and internal relations.

**HST 310. 20th Century Eastern Europe. (3 h)**

Examination of the history of 20th century Eastern Europe, including the creation of nation-states, World War II, and the nature of Communist regimes established in the postwar period. Course includes a discussion of the collapse of the Eastern Bloc and the challenges of European integration.

**HST 311. Special Topics in History. (1-3 h)**

Subject varies with instructor.

**HST 311A. Special Topics: American. (1-3 h)**

Subject varies with instructor.

**HST 311E. Special Topics: European. (1-3 h)**

Subject varies with instructor.

**HST 311G. Special Topics: General. (1-3 h)**

Subject varies with instructor.

**HST 311W. Special Topics: Wider World. (1-3 h)**

Topic varies with instructor.

**HST 312. Jews, Greeks and Romans. (3 h)**

Largely from a Jewish context, the course explores the political, religious, social and philosophical values shaped by the collision between Jews, Greeks, and Romans, from the Hellenistic Period to the Middle Ages.

**HST 315. Greek History. (3 h)**

The development of ancient Greek civilization from the Bronze Age to the end of the Classical Period stressing social institutions, individual character, and freedom of social choice within the framework of cultural, political, and intellectual history.

**HST 316. Rome: Republic and Empire. (3 h)**

A survey of Roman history and civilization from its beginning to about 500 C.E., with emphasis on the conquest of the Mediterranean world, the evolution of the Republican state, the growth of autocracy, the administration of the empire, and the interaction between Romans and non-Romans.

**HST 317. The French Revolution and Napoleonic Empire. (3 h)**

The revolution and wars that constitute one of the pivotal points in modern history.

**HST 318. Weimar Germany. (3 h)**

Art, literature, music, and film of Weimar Germany, 1919-1933, in historical context. German or history credit determined at registration. Also listed as GES 331.

**HST 320. Write and Record! Diaries and Memoirs of the Nazi Holocaust. (3 h)**

Examines a wide range of diaries and memoirs to illuminate the historical period of Nazism, seeking to understand daily life under Nazi rule, the brutality of the perpetrators, and the many responses of Jews forced to live in such circumstances. From Anne Frank's account of hiding in an Amsterdam secret annex to Art Spiegelman's graphic novel of his parent's experience in Auschwitz, the diaries and memoirs of Holocaust victims provide an invaluable resource for historians.

**HST 321. Zionism, Palestine, and Israel in Historical Perspective. (3 h)**

Investigates both the European causes of Zionism and the Middle Eastern consequences of the establishment of the State of Israel. Through our discussion, students will be introduced to many of the scholarly debates over the history, practices, and consequences of Zionism, the State of Israel, and the Israel-Palestinian conflict.

**HST 322. Migrants and Refugees in Modern History. (3 h)**

Explores forced migrations and the development of the concept of refuge from the 16th to 20th centuries, drawing on cases from around the world. Considers how states, empires, and non-governmental organizations have handled migrants and refugees, as well as the lived experiences of displaced individuals.

**HST 323. Wives, Writers, and Witches: Women and Gender in Early Modern Europe, 1500-1800. (3 h)**

Examines the diverse range of women's experiences in early modern Europe, using gender as a lens for analyzing transformations in households, culture, society, and politics between 1500 and 1800. Considers how women negotiated dominant gender ideals and how they contributed to and were impacted by the Renaissance and Reformation, empire, the Scientific Revolution, the Enlightenment, and political revolution.

**HST 324. Fashion in the Eighteenth Century. (3 h)**

Examines the relationship between consumer culture and democratic politics in the eighteenth-century, focusing on Britain, North America, France, and Haiti. Considers laws regulating dress; the relationship between democracy, political resistance, and costume; the construction of political allegiance through clothes and symbols; and the ways fashion mediated ideas about empire, race, and gender.

**HST 325. English Kings, Queens, and Spectacle. (3 h)**

Examines how English royal authority was created, legitimized, performed, and challenged, between the reigns of Henry VIII and George III through ritual, image, and text. Topics include: gender and power; court culture; the press and political revolution; popular politics and propaganda; graphic satire; and the commercialization of politics.



**HST 326. The Industrial Revolution in England. (3 h)**

A study of the social, economic, and political causes and effects of the Industrial Revolution in England. Offered in London.

**HST 327. Profit and Power in Britain. (3 h)**

Examines economic ideas and British society between 1688 and 1914. Topics include connections between consumption and identity; the relationship of morals to markets; the role of gender and the household; knowledge, technology, and the industrial revolution; and the place of free trade in the political imagination.

**HST 328. History of the English Common Law. (3 h)**

A study of the origins and development of the English common law and its legacy to modern legal processes and principles.

**HST 331. The United States in Age of Empire, 1877 - 1919. (3 h)**

Explores the late 19th and early 20th centuries when the United States joined in the global scramble for empire. Examines the domestic and international causes of American imperial expansion; the modes of rule that the U.S. exercised in its formal and informal possessions; and the political and intellectual debates at home and abroad about America's expansion as a world power.

**HST 332. The United States and the Global Cold War. (3 h)**

Considers United States efforts to secure its perceived interests through "nation building" and economic development in Africa, Latin America, the Middle East, and much of Asia during the Cold War and after. Emphasizes the ideological and cultural dimensions of American intervention.

**HST 333. European Diplomacy 1848-1914. (3 h)**

The diplomacy of the great powers, with some attention given to the role of publicity in international affairs. Topics include the unification of Italy and of Germany, the Bismarckian system, and the coming of World War I.

**HST 334. Mystics, Monarchs, and Masses in South Asian Islam. (3 h)**

An introduction to Islam through South Asian social, political, cultural, and intellectual history. (CD)

**HST 335. Hindus and Muslims in India, Pakistan, and Beyond. (3 h)**

Examines the shared yet different, intertwined yet separate histories of the Hindus and Muslims of modern India, Pakistan, Bangladesh, and Sri Lanka primarily over the last two centuries. Explores the checkered existence of the two communities in order to understand diversity and questions of coexistence and conflict. (CD)

**HST 336. Gender and Power in African History. (3 h)**

Examines the close relationship between understandings of gender and power in African societies with particular focus on the last several hundred years. After addressing the sources and methods scholars have used to address these topics, the course examines conceptions of gender and power in pre-colonial African societies, the impact of the colonial period on men and women, the gendered nature of nationalism and independence, and the importance of gender and power to many of Africa's post-colonial challenges. (CD)

**HST 337. Women and Gender in Early America. (3 h)**

History of women and gender roles from 1600 through the Civil War, including the social constructions of femininity and masculinity and their political, economic, and cultural significance. (CD)

**HST 338. Sexuality, Race and Class in the United States since 1850. (3 h)**

History of gender relations from the mid-nineteenth century to the present. Analyzes the varying definitions of femininity and masculinity, the changing notions of sexuality, and the continuity and diversity of gender roles with special attention to race, class, and ethnicity.

**HST 339. Sickness and Health in American History. (3 h)**

Analysis of major trends in health, sickness, and disease within the broad context of social, political, and economic developments. Examines indigenous healing; colonial medicine; emergence of hospitals and asylums; public health; medical ethics; race, class and gender issues; and natural versus high-tech approaches to health care in the 20th century.

**HST 340. Urban Africa. (3 h)**

Examines how urban residents have worked to creatively shape some of sub-Saharan Africa's major transformations. Major topics include the social and cultural fabric of pre-colonial African cities, the impact of colonialism on African towns, cities as sites of revolution and independence, and the contemporary conditions and challenges facing urban residents. While popular imagination suggests that the African past is largely a rural one, many of the continents' most explosive social and cultural transformations have taken place in its cities. (CD)

**HST 341. Africans in the Atlantic World, 1750-1815. (3 h)**

Explores Africans' experience in the Atlantic world (Africa, Europe and the Americas) during the era of the slave trade by examining their encounters with Indians and Europeans and their adjustment to slave traders in West Africa. Also listed as AES 341. (CD)

**HST 343. The Silk Roads. (3 h)**

Explores the global exchanges across land and sea from the Bronze Age to the Early Modern Era, and their impact on the states and stateless societies connected by the Silk Road from China and Japan to the Mediterranean and the British Isles. (CD)

**HST 344. Early Modernity in China. (3 h)**

This course explores historic transformations in Chinese economy, society, thought, and culture from 1500 to 1800. These developments are placed within their local, global, and comparative context. Students read a wide variety of Chinese primary sources in English translation, including philosophical treatises, literary works, letters, diaries, and memoirs, some of which were written by Jesuit missionaries from Catholic Europe. (CD)

**HST 347. The Rise of Asian Economic Power since WWII. (3 h)**

An exploration of how Japan, South Korea, and China became dominant in world economies. Focus on business practices, foreign trade, government policy, and consumer and labor markets in the process of high-speed economic growth. Concludes with examination of recent challenges of national debt, increasing international competition, and aging societies. (CD)

**HST 348. Samurai and Geisha: Fact, Film, and Fiction. (3 h)**

Focuses on two well-known groups in Japanese history, the samurai (warriors) and geisha (entertainers). By analyzing historical studies and primary sources, as well as works of fiction and films about samurai and geisha, the course considers how Japanese and Western historians, novelists, and filmmakers have portrayed the two groups and by implication Japan and its history in the modern period. (CD)

**HST 349. American Foundations. (3 h)**

An interdisciplinary study of American art, music, literature, and social history with particular reference to the art collection at Reynolda House, Museum of American Art. Lectures, discussions, and field trips, including a tour of New York City museums. Term project in American history. Also listed as Art 331, Interdisciplinary Honors 393, 394, and Music 307. Offered at Reynolda House in summer only.

**HST 350. World Economic History: Globalization, Wealth and Poverty, 1500-Present. (3 h)**

Explores the growth of globalization and its role in the creation of wealth and poverty in both developed and underdeveloped nations. Focus on trade, industrialization, and agricultural and technological advances in global contexts. (CD)

**HST 352. Ten Years of Madness: The Chinese Cultural Revolution, 1966 to 1976. (3 h)**

A history of the Chinese Cultural Revolution from 1966 to 1976. Examines the origins, consequences, and collective memories of the catastrophic political events and the social and cultural transformations that took place in China during the last decade of Mao's leadership. (CD)

**HST 353. War and Society in Early America. (3 h)**

Examines the evolution of warfare among the indigenous and colonial societies of North America between 1500 and 1800 and considers the roles of economics, class, gender, race, religion, and ideology in cultures of violence.

**HST 354. The Early American Republic. (3 h)**

A history of the formative generation of the United States. Considers the dramatic transformations of the constitutional, economic, and racial orders, as well as new performances in politics, national identity, gender, and culture.

**HST 356. Jacksonian America 1815-1850. (3 h)**

The United States in the age of Jackson, Clay, Calhoun, and Webster.

**HST 358. Race, Gender and the Courts. (3 h)**

Examines the impact of state and federal court cases upon the evolution of race and gender relations in the U.S. from 1789 to the present. Each case is placed within the political, economic and social historical context for the given time periods. Race includes Native Americans, African Americans, Asian Americans, and Latino Americans. This class will analyze government intervention, inaction, and creative interpretation. (CD)

**HST 359. Prostitutes, Machos, and Travestis: Sex and Gender in Latin American History. (3 h)**

Explores gender and sexuality across 20th century Latin America and the Caribbean. Applies new theoretical developments in gender, masculinity, and LGBT studies to the region's history of race, revolution, labor, dictatorship, and social movements. Cases include the Mexican, Cuban, and Nicaraguan Revolutions and the Dominican and Argentine dictatorships. (CD)

**HST 362. American Constitutional History. (3 h)**

Origins of the Constitution, the controversies involving the nature of the Union, and constitutional readjustments to meet the new American industrialism.

**HST 365. Modern Native American History. (3 h)**

Considers broad historical issues and debates about Native American identity, experiences with and memories of colonialism, cultural preservation and dynamism, and political sovereignty from 1830 to the present. Focuses on individual accounts, tribal case studies, and popular representations of Native people. (CD)

**HST 366. Historic Preservation and Conservation. (3 h)**

Explores the history of the preservation and conservation movements organized to save historic buildings and landscapes in the U.S. and other nations. Examines the laws, international charters, national, statewide, and local agencies, practices, collaborations, and emerging challenges of historic preservation and conservation.

**HST 367. Public History. (3 h)**

Introduces students to the major issues involved in the practice, interpretation, and display of history for nonacademic audiences in public settings. Central themes include controversial historical interpretations, the role of history in popular culture, issues and aims in exhibiting history, and the politics of historical memory. Explores some of the many ways people create, convey, and contest history, major themes in community and local history, and the problems and possibilities of working as historians in public settings.

**HST 368. U.S. Environmental History. (3 h)**

Focuses on human actors and actions while highlighting how the material, or natural, world impacted Americans and shaped the nation. Students will investigate U.S. politics, society, and culture through the lens of the environment while exploring how Americans defined, represented, and used their natural environment over time.

**HST 369. Modern Military History. (3 h)**

Making war in the modern era, with special attention to the social context of military activity. Counts toward the American distribution for majors. Credit not allowed for both HST 369 and MIL 229.

**HST 370. Topics in North Carolina History. (3 h)**

A general chronological survey of North Carolina with emphasis on selected topics. May be repeated for credit if topic varies.

**HST 371. Transgender History, Identity, and Politics in the U.S. (3 h)**

This course explores the experiences of and responses to transgender, gender non-conforming, and intersex (TGI) people in nineteenth- and twentieth-century America. We will examine how scientific/medical authorities, legal authorities, and everyday people have understood and responded to various kinds of gender non-conformity. Same as WGS 305. (CD)

**HST 372. Queer Public Histories. (3 h)**

Explores how public history projects (oral histories, museums, archives, documentaries) document gay, lesbian, and queer communities in the U.S. Discusses how historical and contemporary LGBTQ stories have been collected and examines the various queer identities that emerge through this process. Same as WGS 306.

**HST 373. Anglo-American Relations since 1940. (3 h)**

A study of the relations between the United States and Britain from 1940 to the present. Offered in London.

**HST 374. Protest and Rebellion in Latin America. (3 h)**

A study of the history of protest movements and rebellions in Latin America from primitive and agrarian revolts to mass working class and socialist organizations. (CD)

**HST 375. Black Lives. (3 h)**

Explores both the lived experience and the historical reality of African Americans. Black lives are profoundly shaped by their group experience, influenced in no small part by the role of racism. The biographical approach individuates historical figures struggling to fashion identity. Topics include character development, intimacy, gender roles, public and private personas, self-deceptions or defenses, and personal perceptions of biases. The craft of writing biography is taught throughout the semester. (CD)

**HST 376. Civil Rights and Black Consciousness Movements. (3 h)**

A social and religious history of the African-American struggle for citizenship rights and freedom from World War II to the present. (CD)

**HST 378. Race, Memory, and Identity. (3 h)**

Explores the collective memory and identity of American-Indian and African-American communities and their response to historical trauma in their cultural imagination, spirituality, and political and social activism. Also listed as REL 348. (CD)

**HST 380. America at Work. (3 h)**

Examines the American entrepreneurial spirit within the broader context of industrial, social, and economic change from the colonial period to the present and explores the social and cultural meanings attached to work and workers, owners and innovators, businesses and technologies, management and leadership. Also listed as ENT 380. (CD)

**HST 381. Religious Utopias and the American Experience. (3 h)**

Religious groups of many different origins have found in North America an open space for creating settlements that would embody their ideals. This course surveys a range of such 18th- and 19th-century utopian communities, including Moravians, Rappites, Shakers, and the Oneida and Amana colonies. Also listed as REL 346.

**HST 382. Religion in the Development of Higher Education. (3 h)**

Examines the role of religious groups in the founding of American colleges and universities and explores how their role has changed across history up through contemporary trends and issues. Major themes include the heritage of religion in European higher education; institutions of higher education founded by specific American religious groups; religion in the liberal arts curriculum; religious activities in student life; the relationship of colleges and universities with religious sponsors and constituents, focusing on controversies such as science and religion; the impact of universities on liberal arts colleges; and the trends toward growth and "secularization" in the last 50 years.

**HST 384. Global Outlaws History since 1500. (3 h)**

Examines the motivations, ideologies, goals, and behavior of those who have been deemed "outlaws" to international society since 1500, including pirates, terrorists, smugglers, war criminals, and violators of copyright. Analyzes the role of power in creating the global regimes that define and target such activities.

**HST 385. History through Film: Bollywood and the Making of Modern India. (3 h)**

Juxtaposes historical films made by the world's largest film industry base out of Bombay/Mumbai with textual primary sources and secondary historical works and seeks to understand films as both interpretations and sources of history. Explores specific themes such as nation, gender, caste, and community that are critical to understanding modern Indian and South Asian history and culture. (CD)

**HST 387. The Last Great Muslim Empires. (3 h)**

Examines, in a comparative way, central themes in the history of the Ottoman, Mughal, and Safavid Empires in the early modern period (1400-1800). Considers the ways in which Muslim rulers fostered political legitimacy, ruled over non-Muslim and heterodox subject populations, and recruited persons of diverse religious and ethnic background into state service. (CD)

**HST 388. Nation, Faith, and Gender in the Middle East. (3 h)**

Traces the development of nationalism and its interaction with religious, transnational, and gender identities in the Middle East in the 19th and 20th centuries. Topics include Zionism, Arabism, Turkish nationalism, and Islamic revivalism. (CD)

**HST 389. The British Empire in the Middle East. (3 h)**

Covering the period from the late 18th to late 20th centuries, this course considers British involvement in the Middle East, exploring the political, economic, social and cultural facets of imperial power, decolonization and post-colonial international relations. (CD)

**HST 390. Research Seminar. (4 h)**

Offered by members of the faculty on topics of their choice. A paper is required.

**HST 391. Making History. (3 h)**

Seminar explores how historians make history through analysis, synthesis, and interpretation. Open to all students. All honors students must take HST 391.

**HST 392. Individual Research. (4 h)**

Writing of a major research paper. May be taken in lieu of HST 390. P-POI.

**HST 395. Internship in History. (1-3 h)**

Internship in the community that involves both hands-on experience and academic study. Juniors and seniors only. P-POI.

**HST 397. Historical Writing Tutorial. (1.5 h)**

Individual supervision of historical writing to improve a project initiated in HST 390 or HST 392. Does not count toward major or minor requirements. P-POI.

**HST 398. Individual Study. (1-3 h)**

Project for a qualified student in an area of study not otherwise available in the department; subject to approval. Work must be equivalent to an upper-level course.

**HST 399. Directed Reading. (1-3 h)**

Concentrated reading in an area of study not otherwise available. P-POI.

## Honors (HON)

**HON 131. Approaches to Human Experience I. (3 h)**

An inquiry into the nature and interrelationships of several approaches to man's experience, represented by the work of three such minds as Leonardo da Vinci, Dante, Klee, Lorenz, Confucius, Dostoevsky, Descartes, Goya, Mozart, Jefferson, and Bohr. Seminar discussion based on primary and secondary sources, including musical works and paintings. Written reports and a term paper required. Offered in alternate years.

**HON 132. Approaches to Human Experience II. (3 h)**

An inquiry into the nature and interrelationships of several approaches to man's experience, represented by the work of three such minds as Leonardo da Vinci, Dante, Klee, Lorenz, Confucius, Dostoevsky, Descartes, Goya, Mozart, Jefferson, and Bohr. Seminar discussion based on primary and secondary sources, including musical works and paintings. Written reports and a term paper required. Offered in alternate years.

**HON 133. Approaches to Human Experience II. (3 h)**

A parallel course to HON 131 and 132, concentrating on the work of a different set of figures such as Einstein, Galileo, Keynes, Pascal, Camus, Picasso, Ibsen, Stravinsky, Sophocles, and Bach. Offered in alternate years.

**HON 134. Approaches to Human Experience II. (3 h)**

A parallel course to HON 131 and 132, concentrating on the work of a different set of figures such as Einstein, Galileo, Keynes, Pascal, Camus, Picasso, Ibsen, Stravinsky, Sophocles, and Bach. Offered in alternate years.

**HON 236. The Force of Impressionism. (3 h)**

Impressionism and its impact on modern painting and literature, with attention to origins and theories of style. Painters to include Manet, Monet, Renoir, Degas, and Cezanne. Writers to include Baudelaire, Flaubert, Mallarme, James, Pound, Joyce, and Woolf.

**HON 237. The Scientific Outlook. (3 h)**

An exploration of the origins and development of the scientific method and some of its contemporary applications in the natural and social sciences and the humanities.

**HON 238. Romanticism. (3 h)**

Romanticism as a recurrent characteristic of mind and art and as a specific historical movement in Europe and America in the late eighteenth and nineteenth centuries. Emphasis on primary materials in philosophy, literature, music, and painting.

**HON 240. Adventures in Self-Understanding. (3 h)**

Examination and discussion of significant accounts of the quest for understanding of the self, in differing historical periods, cultural contexts, and genres. Among figures who may be discussed are Augustine, Dante, Gandhi, Montaigne, Descartes, Pascal, and selected modern writers.

**HON 241. The Tragic View. (3 h)**

The theory of tragedy in ancient and modern times; the expression of the tragic in literature, art, music, theatre, and film.

**HON 242. The Comic View. (3 h)**

The theory of comedy in ancient and modern times; the expression of the comic in literature, art, music, theatre, and film.

**HON 247. The Mythic View. (3 h)**

The nature of myth through creation and hero myths; the uses to which myths have been put in different historical periods; various modern explanations of myth (literary, religious, anthropological, psychoanalytic, social, and historical).

**HON 248. The Ironic View. (3 h)**

An investigation of the ironic view of life in literature, art, history, theater, and film.

**HON 257. Images of Aging in Humanities. (3 h)**

Multidisciplinary presentation and discussion of portrayals of aging in selected materials from several of the liberal arts: philosophical and religious perspectives; selections from literature and the visual arts; historical development of perceptions of aging; imaging of aging in contemporary culture.

**HON 258. Venice in Art and Literature. (3 h)**

An exploration of what Venice has meant to nonnative artists and writers, and what they have made of it. Artists and writers include Byron, Turner, Ruskin, Henry James, Sargent, Whistler, Proust, Mann, and others.

**HON 260. Rethinking Space, Place, and Gender in the City. (3 h)**

Explores the intersection of feminist theory, feminist geography, urban design, and anthropology, with the goal of developing strategies for activating spaces that serve all citizens.

**HON 265. Humanity and Nature. (3 h)**

A multidisciplinary exploration of relations of human beings to nature, and of scientific, economic, and political factors in current environmental concerns. Selected religious, classical, and philosophical texts; works of visual art; selected discussions of ecology and human responsibility. Also listed as HMN 365.

**HON 281. Directed Study. (3 h)**

Readings on an interdisciplinary topic approved by the Committee on Honors; presentation of a major research or interpretive paper based on these readings, under the direction of a faculty member; an oral examination on the topic, administered by the faculty supervisor and the Committee on Honors. Eligible students who wish to take this course must submit a written request to the Committee on Honors by the end of the junior year. Not open to candidates for departmental honors.

**HON 285. Performance Art and Theory. (3 h)**

Introduction to the theory of performance art and its practice, with attention to its interdisciplinary underpinnings in art, music, dance, and theatre. Student performances required.

**HON 310. The Medieval World: Special Topics. (3 h)**

A team-taught interdisciplinary course spanning the Middle Ages (500-1500) which considers artistic and/or literary representations and texts in the context of political, historical, or religious culture of the medieval period in Western and non-Western areas of the world. The specific content is determined by the individual instructors.

**HON 365. Literature, Song, and Folklore in Scotland, Ireland, and Appalachia. (3 h)**

A study of the diaspora of Scottish and Irish literature, song, and folklore to the Appalachian region of the United States from the 17th Century to the Present.

**HON 390. Postmodern Thought and Expression. (3 h)**

An exploration of postmodern philosophy, literature, and art, beginning with Nietzsche, Foucault, and Derrida, and extending into experiments in literature and art of the late twentieth and early twenty-first centuries.

**HON 393. American Foundations I. (3 h)**

Interdisciplinary study of American art, music, literature, and social history with particular reference to the art collection at Reynolda House Museum of American Art. Lecture and discussion. Also listed as ART 331, HST 349, and MUS 307. Offered at Reynolda House in summer only. English majors may receive credit for ENG 302. Major credit in any department dependent upon staffing by that department.

**HON 394. American Foundations II. (3 h)**

Interdisciplinary study of American art, music, literature, and social history with particular reference to the art collection and/or exhibitions at Reynolda House Museum of American Art. Lecture and discussion. Also listed as ART 331, HST 349, and MUS 307. English majors may receive credit for ENG 302. Major credit in any department dependent upon staffing by that department.

## Humanities (HMN)

**HMN 160. Contemporary Venetian Experience. (1.5 h)**

Social, artistic and environmental aspects of life in contemporary Venice. Includes site visits, guest lectures, and interviews with Venetians. Taught only in Venice. Pass/fail.

**HMN 170. Contemporary Spanish Experience. (1.5 h)**

Social, political, cultural, and environmental factors of life in Spain today. Taught in Salamanca only. Pass/fail only.

**HMN 180. Contemporary London Experience. (1.5 h)**

Social, political, cultural, and environmental factors of life in London today. Taught only in London. Pass/fail.

**HMN 186. Contemporary Chilean Experience. (1.5 h)**

Social, political, cultural, and environmental factors of life in Chile today. Pass/fail. Taught in Chile only.



**HMN 190. Contemporary Viennese Experience. (1.5 h)**

Social, cultural, and environmental factors of life in contemporary Vienna. Includes site visits, guest lectures and interviews with Viennese. Taught only in Vienna. Pass/Fail only.

**HMN 200. Introduction to Humanities: Themes in Literature, Culture, and Film. (3 h)**

An introduction through literature and film to the history, principles, and concepts of the Humanities, using as its framework an examination of such topics as dystopia and utopia, the influence of Classical principles on contemporary Western cultures, social justice and human rights in literature and film, and other topics central to the humanities. Literary and film analysis will explore how cultural values and beliefs are expressed in media and writing, as well as how these beliefs are manifested in popular culture. The course will include creative writing exercises that explore various literary tropes and humanistic themes. (D)

**HMN 211. Dialogues with Antiquity. (3 h)**

Introduction to key ideas and concepts from ancient cultures and their legacies in medieval, modern, and contemporary societies through an interdisciplinary lens. Topics vary with the instructor. (D)

**HMN 212. Reading the Modern World. (3 h)**

Analyzes pivotal moments in modern and contemporary world history through artistic, literary, and cultural manifestations. Course topics vary with the instructor and may include the rise of nationalism and western democracy, the development of European colonialism, and the social, political, and religious causes of international conflicts from world wars to terrorism. (D)

**HMN 213. Studies in European Literature. (3 h)**

Texts studied are by such authors as Dante, Montaigne, Cervantes, Goethe, Dostoevsky, and Camus. (D)

**HMN 219. Introduction to Japanese Literature. (3 h)**

Explores Japanese literature of the modern and contemporary periods. The course examines ways in which literature reveals underlying Japanese values and provides commentary on social, cultural, class, sexuality and gender-based tensions in Japanese society. Course topics include narratives of Japanese cultural and historical development and tropes of modernity in film, art, and culture. (CD, D)

**HMN 220. Historical Perspectives on the Humanities. (3 h)**

Introduction to the concepts and methodology of the curriculum inspiring the Pro Humanitate motto. Investigation of the historical development of the humanities as an academic field founded in the principles of the liberal arts and of its relationship to theology, natural science, and social science.

**HMN 223. African and Caribbean Literature. (3 h)**

Examines works by writers from Africa and the Caribbean to investigate the intersection of history and personal history, and the role of race, class, and gender in the construction of cultural identity in the colonial and the postcolonial context. (CD,D)

**HMN 225. Literature, Travel, and Discovery. (3 h)**

Explores various works, primarily in translation, from Homer to the present that focuses on the relationship between travel and discovery, especially as travel establishes the ongoing connection between the sacred and the profane for both guest and host.

**HMN 226. Interdisciplinary Approaches to Contemporary Fiction. (3 h)**

Examines the formal and thematic developments of the short story and the novel, focusing on fiction's engagement with history, culture, and society from a transnational and interdisciplinary perspective. (CD, D)

**HMN 227. Engaging the Humanities: Social Justice and Equity in Communities. (3 h)**

This course articulates and experiments with frameworks in the Humanities for critically and compassionately engaging pressing social concerns. Course activities include learning to ethically enter into communities, to remain accountable, and to imagine a more equitable society. Readings from contemporary social justice, ethics and literary scholars, in addition to case studies, will provide an introduction to approaches to navigating social contexts and collaborating with community partners. (CD)

**HMN 228. Viennese Culture 1860-1914. (3 h)**

A study of late nineteenth and early twentieth century Vienna as reflected in the matrix of the city's civic and artistic life. Offered in Vienna.

**HMN 232. Italy in Literature. (3 h)**

Readings and discussions in fictions, drama, and poetry that highlight trends and genres in Italian literature from the Middle Ages through contemporary times, and/or literature that features Italy as seen through the eyes of foreigners. Taught only in Venice.

**HMN 262. Racism, Heterosexism, and Religious Intolerance. (3 h)**

A comparative cultural examination through fiction and non-fiction sources of the initiation, maintenance, and treatment of prejudice, with emphasis on American society from the Jim Crow era to the present.

**HMN 272. Literature and Ethics. (3 h)**

Exploration of the possibility of applying ethical frameworks to literature and the challenges raised in fields including the health humanities and bioethics that can challenge literary analysis. The course will explore ethics through prose fiction and nonfiction, poetry, drama, and other writing. Representative authors may include Shakespeare, Hawthorne, Austen, Browning, Dostoevsky, Silone, Nabokov, Miller and Ishiguro. (CD, D)

**HMN 290. The Humanities through Film, Literature and Media. (3 h)**

Using film, literature and media genres as tropes for analysis, an exploration of new and innovative approaches to the humanities in the late 20th and early 21st century including public humanities, digital humanities, and environmental humanities and examining cultural studies, interdisciplinary studies, and gender and sexuality studies as approaches for investigating social justice, environmental justice, and social action. (CD)

**HMN 291. The Humanities and History: Intersections of Public History and the Public Humanities. (3 h)**

Exploration of approaches to public engagement developed in humanities disciplines and an examination of contributions of disciplines in the humanities and the liberal arts to civic discourse and to public engagement. The course includes design and implementation of a local public humanities project.

**HMN 292. Environmentalism, the Humanities, and Gender. (3 h)**

Survey of the global spread of Environmentalism, with an emphasis on its evolution as a disciplinary field that includes eco-feminism and feminist perspectives on the environment. Topics include the investigation of women's roles in environmental history and the construction of global environmental narratives. Also listed as WGS 309.

**HMN 294. Digital Approaches in the Humanities. (1.5, 3 h)**

An introduction to the concepts and tools of the digital humanities. Projects in the digital humanities include exercises that employ the use of these tools to examine data and narratives of the humanities, including disciplinary approaches in literature, public history, women's, gender, and sexuality studies, and media studies.



**HMN 295. Social Entrepreneurship and the Humanities: Innovation, Public Engagement, and Social Change. (3 h)**

Introduction to the role played by the humanities in social entrepreneurship, exploring the premise that norms can be developed for the application of the humanities, and that the knowledge derived in this process can empower and be a tool in community-based engagement and social change. Course includes a social entrepreneurial project in the local community. Also listed as ENT 321.

**HMN 365. Humanity and Nature. (1.5, 3 h)**

Examines the relationships between different social groups and nature from a variety of perspectives: philosophical, scientific, religious, political, legal, and aesthetic with a focus on how various humanistic perspectives articulate a sustainable and viable relationship with nature. The class engages religious, classical, and philosophical texts; visual art; discussions of ecology and human responsibility.

**HMN 370. Medicine and the Humanities. (3 h)**

Explores ideas and questions at the intersection of medical science and the humanities. Topics include the expression of disease in literature and art; the ethics of genetics research; the interplay of religion and medicine; the economics of health care; and the interplay between medical research and care and issues of race, gender, sexuality, colonialism, and disability.

**HMN 374. Humanities and Law. (3 h)**

Examines the common roots of law, philosophy, literature, and politics. Focuses on the interpretative strategies and critical skills that legal professionals, humanists, and artists share.

**HMN 375. Urban Design and the Human Experience. (3 h)**

A study of the role that urban design and planning play in shaping the urban experience, and the impact of design choices on the evolution of the cities and their possible futures. The course will explore human potential and expression in the built environment, drawing from literary and non-fictional accounts of life in cities. Observations and design exercises in local neighborhood and community spaces will serve as a basis for understanding the role of place in urban culture and its ability to shape the human experience. (CD)

**HMN 385. Special Topics. (1-3 h)**

Selected themes and approaches to the study of human culture that bridge disciplinary and/or national boundaries. Can be repeated for credit.

**HMN 389. Directed Reading and Research. (1.5 h)**

A research project in the humanities that pursues a topic studied in one of the courses of the minor and a synthesis of views from a least two traditional disciplines.

**HMN 390. Directed Writing. (1.5 h)**

Capstone project in the minor. P - HMN 389.

## Interdisciplinary Studies (IND)

**IND 399. Senior Project. (3 h)**

An independent project carried out under the supervision of a faculty member. (Required for all IND Majors) P - POI.

## International Studies (INS)

**INS 101. Overseas Study. (1-3 h)**

Directed reading and/or field work as part of an approved overseas program under the supervision of a professor, instructor, or the program director/coordinator or the Center for Global Programs and Studies. P-POI.

**INS 105. City as Text. (1-3 h)**

Introduction to the historical, cultural, and physical geography of the host city for Wake Forest study abroad programs. Participants travel throughout the city visiting plazas, neighborhoods, museums and other points of interest. Specific attention is given to areas of artistic, architectural, cultural, and historical significance. Students maintain journals and complete reflection papers. Only offered at Wake Forest study abroad locations.

**INS 120. Language and Culture Study. (1-3 h)**

Provides communicative and cultural training to students studying on Wake Forest study abroad programs in locations where the languages of the host country is not currently taught at Wake Forest. Course intended to ensure students are not linguistically isolated while abroad; prepares students to interact with locals and increase their ability to reflect on the cross-cultural experience of living in the host country. Topics include explorations of language, culture, art, history, film, and current events. Only offered at Wake Forest study abroad locations.

**INS 130. Global Village Living and Learning Community. (1-3 h)**

This interdisciplinary course is designed to create discussion around global issues and global citizenship for residents of the Global Village Living and Learning Community. Students are exposed to a variety of ways to view global citizenship through five global competencies - expression, engagement, discourse, inquiry, and connections. This class is designed to be taken twice, once in the Fall semester and once in Spring semester.

**INS 140. United Nations/Model United Nations. (1.5 h)**

Exploration of the history, structure, and functions of the United Nations including current economic, social, and political issues. An in-depth analysis of one country in the UN and attendance at the Model UN Conference. May be taken twice for credit. Pass/Fail only.

**INS 150. Preparing for Cross-Cultural Engagement Abroad. (1 h)**

Introduces students to theoretically-based issues and skills needed for understanding and interacting with people in other cultures. Taken in the semester before the student studies abroad. Pass/Fail only. P-POI.

**INS 151. Cross-Cultural Engagement Abroad. (1 h)**

Gives students the opportunity to apply knowledge and skills gained from INS 150 to develop a better understanding of cultural variables such as value orientations, communication styles, and nonverbal communication. Taken while the student is abroad. Pass/Fail only. P-POI.

**INS 152. Cross-Cultural Engagement and Re-entry. (1 h)**

Students reflect on their experience abroad and the cultural learning that occurred there. They also develop strategies for dealing with re-entry and applying the lessons learned now and in the future. Taken in the semester after the student has studied abroad. Pass/ Fail only. P-POI.

**INS 153. Intro US and Univ Culture. (1-3 h)**

This course provides students with a better understanding of the framework and cultural milieu of life in the U.S. and at U.S. universities in order to help them make sense of the cultural differences they (will) encounter in academics, customs, politics, media, and sports, among others. Taken by international students prior to or during their first semester at Wake Forest. Pass/Fail only.

**INS 154. Community Based Global Learning. (0-3 h)**

Focuses on understanding community based global service engagement in a global context. Students explore the history of service, charity, and ethical service around the world. Using case studies, students consider the role of volunteers as effective global change agents, causes of and barriers to success for global service providers, and the structure and operation of international nonprofit organizations. The course introduces students to theoretically-based issues and skills needed for understanding and interacting with people from cultures different from their own.

**INS 170. Special Topics. (0-3 h)**

Topics that are not covered in other international studies courses. May be repeated for up to six hours if the topic changes.

**INS 228. Individual Study. (1-3 h)**

Intensive research leading to the completion of an individual project conducted under the supervision of a faculty member. Students are responsible for initiating the project and securing permission of an appropriate faculty member. P-POI.

**INS 229. Internship in International Studies. (1-3 h)**

Field work directly related to international issues in a public or private setting under the supervision of a faculty member. Related readings and an analytical paper are minimum requirements. Students are responsible for initiating the project and securing the permission of an appropriate instructor. P-POI.

**INS 250. Introduction to International Studies. (3 h)**

An overview of key themes related to the study of international issues. Topics include but are not limited to migration, urbanization, economic development, trade, foreign aid, nationalism and identity, consumerism, gender and culture. (CD)

**INS 260. Seminar in Global Trade and Commerce Studies. (3 h)**

Provides integrative knowledge in global trade and commerce. Focuses on understanding the global environment and the variety of issues associated with global trade and commerce.

**INS 349. Japanese and American Culture: Cross-Cultural Communication. (3 h)**

An exploration of communication differences between the Japanese and the Americans. Japanese and American values, behavior, and beliefs will be compared in determining effective methods for cross-cultural communication. Special emphasis will be placed on examining factors leading to miscommunication and the development of techniques for overcoming cultural barriers. Credit not given for both INS 349 and COM 351A. Also listed as COM 351A. (CD)

**INS 363. Global Capitalism. (3 h)**

An analysis of changing patterns of industrial organization, market, and labor relations, and institutional frameworks that have resulted from the growth of an integrated global capitalist economy. Also listed as SOC 363.

**INS 365. Technology, Culture, and Change. (3 h)**

Examines the interrelated forces that shape change in organizations and societies; from the emergence of capitalist markets to the systems, controls, and information revolution of the 21st century. Also listed as SOC 365.

## Italian (ITA)

**ITA 111. Elementary Italian I. (3 h)**

Beginners course covering grammar essentials and emphasizing speaking, writing, and the reading of elementary texts. Lab required. ITA 111 and 112 count for students in the Venice program.

**ITA 112. Elementary Italian II. (3 h)**

Beginners course covering grammar essentials and emphasizing speaking, writing, and the reading of elementary texts. Lab required. ITA 111 and 112 count for students in the Venice program.

**ITA 113. Intensive Elementary Italian. (4 h)**

Intensive course for beginners, emphasizing the structure of the language and oral practice. Recommended for students in the Venice program and for language minors. Credit not given for both ITA 113 and ITA 111 or 112. Lab required. Lecture. By placement or faculty recommendation.

**ITA 153. Intermediate Italian. (4 h)**

Continuation of ITA 113, with emphasis on speaking, developing students' reading, writing skills and preparing them for oral and written discussion of literary texts in ITA 212 or 213. Lab required. P-ITA 112 or 113.

**ITA 154. Intermediate Italian. (3 h)**

An intermediate-level course intended for students who have taken the 111-112 sequence. It offers the opportunity to develop further their reading, writing and conversation skills and prepare for oral and written discussion of literary texts in ITA 212 or 213. Lab required. P-ITA 111-112.

**ITA 196. Italian Across the Curriculum. (1.5 h)**

Coursework in Italian done as an adjunct to specially-designated courses throughout the College curriculum. May be taken for grade of Pass/Fail. P-POI.

**ITA 197. Italian for Reading Knowledge. (1.5 h)**

Review of essential Italian grammar, usage, vocabulary, and processing strategies for reading various types of literary, social science, and technical publications for content. Designed for students interested mainly in strengthening reading proficiency in the language and aimed at preparing students to take the graduate reading exam administered at the end of the course. Undergraduate credit given. Offered in the first half of the semester. P-Intermediate Italian or equivalent and placement exam.

**ITA 212. Exploring the Italian World. (3 h)**

Continued language study through exploration of significant cultural expression from the multifaceted Italian world. Credit not given for both ITA 212 and 213. P - ITA 153 or equivalent.

**ITA 213. Introduction to Italian Literature. (3 h)**

Reading of selected texts in Italian. Satisfies basic requirement in foreign language. Students cannot receive credit for both ITA 212 and 213. P-ITA 153 or equivalent.

**ITA 217. Studies of Italy. (3 h)**

Survey course on Italian literature from authors from the various regions of Italy and on special cultural themes such as Italian immigration and new immigrations in Italy to give to students in Venice a deeper and broader understanding of Italian cultural complexity. Only taught in Venice. P - ITA 212 or 213 or POI.

**ITA 260. Contemporary Italy. (3 h)**

Study of society and culture in contemporary Italy. Offers elements of civilization, arts, gender, politics, literature and cinema and includes Italian-American studies. Intended for students interested in continuing Italian beyond the language requirement. P-ITA 212, 213 or POI.

**ITA 280. Business Italian. (3 h)**

Development of vocabulary and communication skills necessary to operate in Italian business settings. Emphasis on cross-cultural competency in the context of Italian business practices. P-ITA 212 or 213.

**ITA 319. Grammar and Composition. (3 h)**

Review of the basics of structure and vocabulary; detailed examination of syntax and idiomatic expressions; practice in translation of texts of diverse styles and from varied sources; and free composition. P-ITA 212, 213 or 216 or equivalent.

**ITA 324. Italian Regional Cultures. (3 h)**

Focuses on different aspects of regional cultures in Italy. Emphasizes local lifestyles, literatures, and cinematography. Regional cultures and historic background are analyzed and compared through class demonstrations and cultural artifacts. P - ITA 319 or POI.

**ITA 326. Comedy in Italian Cinema. (3 h)**

Study of modern Italian society through the analysis of films from the 1950s to the present. Taught in Italian. P - ITA 319 or POI.

**ITA 327. Modern Italian Cinema. (3 h)**

Study of the major developments of modern Italian cinema. Full-length feature films by Federico Fellini, Ettore Scola, Pier Paolo Pasolini, Bernardo Bertolucci, Marco Bellocchio, Gianni Amelio, Nanni Moretti, Gabriele Moretti Salvatores, Guiseppe Tornatore, Massimo Troisi, Roberto Benigni, and other Italian filmmakers will be studied and discussed from different perspectives. P - ITA 319 or POI.

**ITA 328. Dante's Divine Comedy. (3 h)**

Introduces Italian medieval literature and culture through a selected, critical reading of Dante's masterpiece and other medieval texts. Introduces students to the intellectual and social context of the Italian Middle Ages by relating the texts to the cultural, political, social, and philosophical concerns of the period. P - ITA 319 or POI.

**ITA 329. Love, Gender, and Diversity in Italian Epic. (3 h)**

The course focuses on spaces and modalities of representation of love, gender, and diversity in Italian epic through text and images, including films. P - ITA 319 or POI.

**ITA 333. Italian Theatre. (3 h)**

Study of representative Italian drama such as commedia dell'arte and works from Machiavelli, Goldoni, and Dario Fo. P - ITA 319 or POI.

**ITA 335. Italian Women Writers. (3 h)**

Study of representative novels by women writers from Italy and the Italian world, with emphasis on the historical novel within its cultural context. P - ITA 319 or POI.

**ITA 336. Italian Women and the City. (3 h)**

This course proposes, through Italian readings and films, the interpenetration of women's lives with the urban environment, both physical and imagined. It proposes to be a guide to mapping not only how city spaces shape or limit women's lives, but also how women participate in the construction or reconstruction of these spaces. P-ITA 319 or POI.

**ITA 338. South in Contemporary Italy. (3 h)**

Throughout centuries of struggles for nationhood, southern Italy as a society dealt with many obstacles: hastened modernization, regionalism and organized crime. This course examines southern Italy as a society through history, short novels, films, newspapers and academic articles within a national perspective. P-any 200-level course.

**ITA 340. Traveling with Muhammad and Dante. (3 h)**

Examines, in literary and visual forms, the Book of the Ladder of Muhammad and Dante's *Inferno* where the journeys of the two travelers into the afterlife are narrated. P-ITA 319 or POI .

**ITA 342. Boccaccio's Decameron or "Sex in the City": Rethinking Community in Medieval Florence. (3 h)**

Studies the impact of the plague that hit Europe in 1348 and the power of storytelling to rebuild the community. P - ITA 319 or POI.

**ITA 346. Narrating and Visualizing the Mediterranean in the Italian Trecento. (3 h)**

This course examines the representation of the Mediterranean through texts and images. P - ITA 319 or POI.

**ITA 375. Special Topics. (3 h)**

Selected special topics in Italian literature. P - ITA 319 or POI.

**ITA 381. Italian Independent Study. (1.5-3 h)**

May be repeated once for credit. P - POI.

## Italian Language and Culture in English (IAS)

**IAS 210. Introduction to Italian Literature. (3 h)**

Italian literature through the centuries focusing on Italy's most significant contributions to Western literature and culture. Includes major works in poetry, theater, and novels that explore Italian historical, social, and cultural experiences and reflect on the process of literary creation. (D)

**IAS 212. Contemporary Italian Fiction. (3 h)**

Introduction to works of fiction in post-World War II Italy. Themes vary and may include historical trauma, the changing faces of Italy, and the role and forms of fiction in the contemporary world. (D)

**IAS 214. Italian Drama. (3 h)**

Survey of Italy's most influential contributions to the history of theater, ranging from Commedia dell'arte, Renaissance spectacle, and the bourgeois theater of Carlo Goldoni to the Nobel prize-winning 20th century playwrights Luigi Pirandello and Dario Fo. (D)

**IAS 220. Italian Women Writers. (3 h)**

Through readings, films, and documentaries, explores the foremost issues concerning contemporary women's writing in the Italian context —women's fight against marginalization and struggle for freedom, both economic and social, and the right to assert themselves. (D)

**IAS 310. Italian Historical Fiction. (3 h)**

Inquiry into Italian novels and stories blending fictional and historical elements. (D)

**IAS 325. Italian Neorealism in Films and Novels. (3 h)**

Study of important films, novels, and short stories of Italian Neorealism, including considerations of the history, philosophy, politics, artistic movements and civic renaissance of postwar Italian life that led to its development. (D)

**IAS 360. Dante. (3 h)**

Study of the *Divina Commedia* as epic, prophecy, autobiography, and poetry, relating it to antiquity, Christianity, Dante's European present, the birth new intellectual and poetic forms, and Dante's own afterlife in the West. (D)

**IAS 380. History of Italian Cinema. (3 h)**

Examines the cultural history and aesthetics of motion pictures through the works of significant Italian filmmakers and genres from silent era to the 21st century.

## Japanese (JPN)

### JPN 101. First-year Japanese I. (4 h)

Two-semester sequence designed to help students develop their ability to communicate in Japanese at the elementary level. Focuses on developing proficiency in listening, speaking, reading, and writing.

### JPN 102. First-year Japanese II. (4 h)

Two-semester sequence designed to help students develop their ability to communicate in Japanese at the elementary level. Focuses on developing proficiency in listening, speaking, reading, and writing. P-JPN 101 or equivalent.

### JPN 153. Second-year Japanese I. (4 h)

Two-semester sequence at the intermediate level. Continues to focus on developing proficiency in listening, speaking, reading, and writing. Expands students' ability to communicate with a broader range of vocabulary and grammar. P-JPN 102 or equivalent.

### JPN 201. Second-year Japanese II. (4 h)

Two-semester sequence at the intermediate level. Continues to focus on developing proficiency in listening, speaking, reading, and writing. Expands students' ability to communicate with a broader range of vocabulary and grammar. P-JPN 153 or equivalent.

### JPN 220. Third-year Japanese I. (4 h)

Two-semester sequence at the advanced level. Integrates conversation, discussion, presentation, reading, and writing skills with emphasis on written and audiovisual sources. P-JPN 201 or POI.

### JPN 230. Third-year Japanese II. (4 h)

Two-semester sequence at the advanced level. Integrates conversation, discussion, presentation, reading, and writing skills with emphasis on written and audiovisual sources. P-JPN 220 or equivalent.

### JPN 231. Fourth-year Japanese. (3 h)

Advanced readings, discussion, presentations, and writing practice on topics in Japanese culture and society, using authentic stories, poetry, films, songs, websites, and other multimedia sources. P-JPN 230 or equivalent.

### JPN 250. Introduction to Literature Written in Japanese. (1-3 h)

Develops students' productive skills at the discursive and rhetorical levels using authentic materials. Designed for students who have completed the cycle of Japanese courses at Wake Forest and/or through study abroad. P-JPN 231 or POI.

### JPN 290. Japanese Abroad. (3 h)

Coursework in Japanese taken abroad. Not offered at the Wake Forest campus. May be repeated for credit with POI.

### JPN 291. Special Topics in Japanese. (3 h)

Develops students' confidence and skills in handling topical issues in Japanese society and culture using authentic materials. P-JPN 230 or POI.

### JPN 296. Japanese across the Curriculum. (1 h)

Coursework in Japanese done as an adjunct to specially-designated courses throughout the college curriculum. P-POI.

### JPN 299. Individual Study. (1-3 h)

P-POI.

## Journalism (JOU)

### JOU 270. Introduction to Journalism. (3 h)

Fundamentals of news reporting, news writing, and news judgment. Digital skills introduced and practiced. Intensive in-class writing.

### JOU 278. News Literacy. (3 h)

Exploring the difference between news and propaganda, news and opinion, bias and fairness, citizen reporting and professional journalism with a goal of training more discriminating and thoughtful producers and consumers of news. Included: historical context of the news industry.

### JOU 310. Editing. (3 h)

Fundamentals in copy editing and headline writing as it applies to print and online journalism. Applying grammar, adherence to Associated Press style, and use of photos, lay-out and news judgment to improve news and feature stories. Intensive in-class editing. P - JOU 270 or POI.

### JOU 315. Beat Reporting. (3 h)

Fundamentals in identifying and developing news and feature beats. Emphasis on interviewing skills, source development, story identification and writing for print and online. Digital skills such as blogging, photography, video production, and social media practiced. Highly interactive. P - JOU 270.

### JOU 320. Community Journalism. (3 h)

Produce stories in a range of media for an online publication with a growing readership about the people, places, and trends that create community in downtown Winston-Salem. Students will break news, explore the arts scene, tell stories about interesting people in town and practice journalism on the ground. P - JOU 270 or POI.

### JOU 325. Writing for a Social Purpose. (3 h)

Combines writing, service learning, and entrepreneurship approaches in communication by partnering students with a local nonprofit organization to provide a range of writing solutions in print and online. Also listed as ENT 203. P - JOU 270 or POI.

### JOU 330. Podcasting. (3 h)

Introduction to audio storytelling. As the world of podcasting and nonfiction audio grows rapidly, students will learn the building blocks and best practices of audio journalism, including sound editing, and interviewing, and story, and will discuss what journalism means in these changing times.

### JOU 335. Multimedia Storytelling. (3 h)

Provides concepts and applied skills related to digital news production, digital research, use of search engine optimization and analytics, social media as a reporting and branding tool, navigating content management systems, visual storytelling and web publishing.

### JOU 340. Magazine Writing. (3 h)

Analysis of magazine writing and long form journalism with practice pitching, reporting and writing articles in a range of styles and of varied lengths with specific audiences in mind. Also listed as WRI 344.

### JOU 345. Sports Journalism. (3 h)

Introduction to the world of sports, the lives of athletes and the influence both have on American culture and college campuses. Students will keep a blog, conduct regular interviews, cover on- and off-campus sporting events, write opinion columns, produce multimedia stories and profile Wake Forest athletes. P - JOU 270 or POI.

### JOU 350. Writing for Public Relations and Advertising. (1.5, 3 h)

Principles and techniques of public relations and applied advertising and marketing. Students use case studies to develop public relations and advertising strategies. Also listed as COM 117.

### JOU 355. Broadcast Journalism. (3 h)

An introduction to the theory and practice of broadcast journalism. Topics will include ethics, technology, and the media as industry. Projects will address writing, producing, and performing for radio and television. Also listed as COM 215.



**JOU 370. International Reporting. (3 h)**

Students explore a part of the world as journalists do, interviewing, observing, and exploring to produce stories that shed light on the people, culture, and issues that define that place. P - JOU 270 or POI.

**JOU 375. Special Topics in Journalism. (1-3 h)**

Study and practice of new trends, innovations and subject matters in journalism. May be repeated once for credit, provided the topic has changed. P - JOU 270 or POI.

**JOU 390. Internship. (1-3 h)**

Practical experience in journalism. Students work with a faculty adviser. Cannot be repeated except with approval of the director.

**JOU 395. Individual Study. (1-3 h)**

Independent study with faculty guidance. By prearrangement.

## Latin (LAT)

**LAT 111. Elementary Latin. (3 h)**

Introduction to the language; provides a foundation for reading in the ancient authors.

**LAT 112. Elementary Latin. (3 h)**

Introduction to the language; provides a foundation for reading in the ancient authors.

**LAT 113. Intensive Elementary Latin. (3 h)**

An introduction to the language; the course covers the material of LAT 111 and LAT 112 in one semester. Not open to students who have had LAT 111 or LAT 112.

**LAT 113L. Intensive Elementary Latin Lab. (2 h)**

Concentration on sight-reading and composition in Latin. Must be taken in the same semester as LAT 113.

**LAT 120. Reading Medieval Latin. (1.5-3 h)**

Introduction to post-classical Latin with readings in selected works from late antiquity and the middle ages. P-LAT 112 or equivalent.

**LAT 153. Intermediate Latin. (3 h)**

Review of grammar and selected introductory readings. P-LAT 112, 113 or equivalent.

**LAT 153L. Intermediate Latin Lab. (2 h)**

Concentration on sight-reading and composition in Latin. Must be taken in the same semester as LAT 153.

**LAT 211. Introduction to Latin Poetry. (3 h)**

Readings from selected poets mainly of the late Republic and early Empire, with an introduction to literary criticism. P-LAT 153 or equivalent.

**LAT 212. Introduction to Latin Prose. (3 h)**

Readings primarily from the works of Cicero, with attention to their artistry and historical context. P-LAT 153 or equivalent.

**LAT 316. Roman Lyric Poetry. (3 h)**

Interpretation and evaluation of lyric poetry through readings from the poems of Catullus and Horace. P-LAT 211 or 212, or equivalent.

**LAT 318. Roman Epic Poetry. (3 h)**

Reading in the epics of Virgil and Ovid, with attention to their position in the epic tradition. P-LAT 211 or 212, or equivalent.

**LAT 321. Roman Historians. (3 h)**

Readings in the works of Sallust, Livy, or Tacitus, with attention to the historical background and the norms of ancient historiography. P-LAT 211 or 212, or equivalent.

**LAT 325. Roman Epistolography. (3 h)**

Selected readings from the correspondence of Cecero and Pliny the Younger and the verse epistles of Horace and Ovid. P-LAT 211 or 212, or equivalent.

**LAT 326. Roman Comedy. (3 h)**

Readings of selected comedies of Plautus and Terence, with a study of the traditions of comedy and dramatic techniques. P-LAT 211 or 212, or equivalent.

**LAT 331. Roman Elegy. (3 h)**

Readings from the poems of Tibullus, Propertius, and Ovid, with study of the elegiac tradition. P-LAT 211 or 212, or equivalent.

**LAT 341. Roman Satire. (3 h)**

Selected readings from Horace, Lucilius, Persius, or Juvenal, with attention to the origin and development of hexameter satire. P-LAT 211 or 212, or equivalent.

**LAT 343. Latin Readings. (1.5, 3 h)**

Designed to meet individual need and interests. Course may be repeated for a total of six credit hours. P-POI.

**LAT 350. Advanced Grammar and Composition. (3 h)**

Intensive work in morphology and syntax, with practice in composition and stylistic analysis of selected readings. P-LAT 211 or 212, or equivalent.

**LAT 360. Seminar in Latin Poetry. (3 h)**

Advanced study in selected poets and genres. A research paper is required. P-LAT 211 or 212, or equivalent.

**LAT 380. Seminar in Latin Prose. (3 h)**

Advanced study in selected authors and topics. A research paper is required. P-LAT 211 or 212, or equivalent.

**LAT 391. Honors in Latin. (1.5 h)**

Directed research for the honors paper. P-POD.

**LAT 392. Honors in Latin. (1.5 h)**

Directed research for the honors paper. P-POD.

## Latin American Studies (LAS)

**LAS 210. Introduction to Latin-American and Latino Studies. (3 h)**

Introduces the historical, economic, cultural, and social issues which shape Latin America. (CD)

**LAS 220C. Afro-Cuban Cultural Expression. (3 h)**

A comprehensive study of Cuban culture with a concentration on the artistic manifestations of Afro-Cuban religions. Students study literature, art, film, music, and popular culture to analyze how Afro-Cuban culture constitutes national culture. Also listed as SPA 368. Offered in Havana. (CD)

**LAS 281. Contemporary Chile in Latin American Perspective. (3 h)**

Introduces the nature and content of contemporary Chilean politics by placing them in a wider analysis of Latin American politics, history, and society, and international relations. Normally offered in Chile unless otherwise noted.

**LAS 310. Special Topics in Latin American and Latino Studies. (3 h)**

Selected topics in Latin American and Latino studies; topics vary from year to year. (CD)

**LAS 380. Latin American and Latino Studies Honors Colloquium. (4 h)**

Honors capstone colloquium consisting of varied readings and an individual research project. Normally offered in Chile unless otherwise noted.



**LAS 388. Internship in Latin American and Latino Studies. (1-3 h)**

Internship course designed to meet the needs and interests of selected students, to be carried out under the supervision of a faculty member in the Latin American and Latino Studies minor. P - POI.

**LAS 398. Individual Study. (1-3 h)**

A reading or research course designed to meet the needs and interests of selected students, to be carried out under the supervision of a faculty member in the Latin American Studies minor. P-POI.

## Library Science (LIB)

**LIB 100. Academic Research and Information Issues. (1.5 h)**

An introduction to the research process and methods for finding, retrieving and evaluating information in an academic library and through online sources. Encourages the development of the skills, attitudes and abilities essential to the discovery of information and promotes an understanding of how scholarship is produced, valued, and shared. Explores the use of information in creating new knowledge and participating ethically in communities of learning.

**LIB 210. Social Sciences Research Sources and Strategies. (1.5 h)**

This half-semester course helps students develop as emerging social science scholars. Through exploring the sources and strategies used in social science research, students will explore interdisciplinarity; design an effective research process; investigate and critically evaluate sources; develop proficiency in APA style and citation management software; participate in scholarly conversations; and reflect on issues around information production, access, and authority. Must be sophomore or above to enroll.

**LIB 220. Science Research Sources and Strategies. (1.5 h)**

This half-semester course provides students with an understanding of the sources and strategies for doing research in the natural sciences as well as the ethical, legal, and socioeconomic factors that influence scientific information production and dissemination. P—Major or minor in science discipline or POI.

**LIB 230. Business and Accounting Research Sources and Strategies. (1.5 h)**

Provides students with an understanding of the sources and strategies necessary for doing research in business and accounting. Topics include strategies for developing research projects, resources available in each discipline, finding and evaluating sources and interpreting research results. P-Major in business or accounting. P-Major in business or accounting or POI.

**LIB 235. Research Methods for Entrepreneurs. (1.5 h)**

This course is intended for students pursuing a minor in entrepreneurship or starting their own entrepreneurial project. It will introduce them to research methods and resources appropriate for business planning, including subscription-based resources available through WFU as well as reliable free resources available from governments, public libraries and elsewhere. The class will learn how to assess a potential market during the exploratory phase all the way through evaluating competitors and industry trends for more fully-formed business concepts. Trends in information gathering and information use by entrepreneurs will also be discussed.

**LIB 240. History, Politics and Legal Research Sources and Strategies. (1.5 h)**

Provides students with an understanding of the sources and strategies necessary for doing research in history, political science and law. Topics include strategies for developing research projects, resources available in each discipline, finding and evaluating sources and interpreting research results. Must be sophomore or above to enroll.

**LIB 250. Humanities Research Sources and Strategies. (1.5 h)**

Provides students with an understanding of the sources and strategies necessary for doing research in the humanities (English, classics, humanities, religion, history, philosophy, foreign language, art, music, theatre, dance). Topics include strategies for developing research projects, resources available in each discipline, finding and evaluating sources and interpreting research results. Must be sophomore or above to enroll.

**LIB 260. History of the Book 1500-2000. (1.5 h)**

Introduces students to issues in the history of the book in the West, from early modern manuscript culture through the beginnings of the digital age. Using materials from ZSR Library's Rare Books Collection, students examine printed texts as objects of study in three major ways: as material artifacts, as vehicles for text, and as social constructs. Class assignments include a descriptive bibliography/research paper, in addition to hands-on typesetting, printing, and bookbinding projects. For more information contact the Special Collections Librarian, ZSR Library.

**LIB 290. Topics in Information. (1-3 h)**

Intensive look at one or more current topics in information. Course may be retaken for credit if topic varies.

## Linguistics (LIN)

**LIN 150. Introduction to Linguistics. (3 h)**

The social phenomenon of language: how it originated and developed, how it is learned and used, its relationship to other kinds of behavior; types of language (oral, written, signed) and language families; analysis of linguistic data; social issues of language use. Also listed as ANT 150. (CD)

**LIN 309. Modern English Grammar. (3 h)**

A linguistics approach to grammar study. Includes a critical exploration of issues such as grammatical change and variation, the origins and effects of grammar prescriptions/proscriptions, the place of grammar instruction in education, and the politics of language authority. Also listed as ENG 309.

**LIN 310. Sociolinguistics and Dialectology. (3 h)**

Study of variation in language: effects of regional background, social class, ethnic group, gender, and setting; social attitudes toward language; outcomes of linguistic conflicts in the community; evolution of research methods for investigating language differences and the diffusion of change. P- LIN 150/ANT 150 or POI.

**LIN 330. Introduction to Psycholinguistics and Language Acquisition. (3 h)**

A psychological and linguistic study of the mental processes underlying the acquisition and use of language; how children acquire the structure of language and how adults make use of linguistic systems.

**LIN 333. Language and Gender. (3 h)**

Uses an anthropological perspective to examine relationships between language structure, language use, persons, and social categories. Also listed ANT 333.

**LIN 337. TESOL Linguistics. (3 h)**

Introduces the theoretical and practical linguistics resources and skills for teaching English to speakers of other languages (TESOL) within the United States or abroad. Also listed as EDU 337. P-LIN 150/ANT 150 or ENG 304 or POI; knowledge of a second language is recommended.

**LIN 340. Special Topics in Linguistics. (3 h)**

Interdisciplinary study of selected topics, such as morphology, phonology/phonetics, syntax, historical linguistics, history of linguistic theory, semiotics, and ethnolinguistics, issues in Asian linguistics, language and gender. May be repeated for credit if topic varies. P-LIN 150/ANT 150 or POI.

**LIN 350. Language, Indigeneity and Globalization. (3 h)**

Taking a global case-study approach, this seminar explores the role language plays in contemporary identity formation and expression, from indigenous to transnational contexts. Addresses relationships among language and: colonialism, postcolonialism, nationalism, cultural revitalization, standardization, social and economic inequality, boundary-formation, and processes of cultural inclusion and exclusion. Also listed as ANT 350. (CD)

**LIN 351. Comparative Communication. (1.5, 3 h)**

A comparison of communicative and linguistic processes in one or more national cultures with those of the United States. Also listed as COM 351. (CD)

**LIN 351A. Comparative Communication Japan. (1.5, 3 h)****LIN 351B. Comparative Communication Russia. (1.5, 3 h)****LIN 351C. Comparative Communication Great Britain. (1.5, 3 h)****LIN 351D. Comparative Communication Multiple Countries. (1.5, 3 h)****LIN 351E. Comparative Communication China. (1.5, 3 h)****LIN 352. Linguistics Cross-Cultural Communication. (3 h)**

Introduction to the nature of language, communication practices, nonverbal communication, and their cross-cultural variability. Teaches awareness of and respect for a range of culturally-specific communicative practices and provides analytic skills (linguistics, semiotic, and ethnographic) with which to recognize and assess such practices. This course differs from COM 350 (Intercultural Communication) in its greater emphasis on approaches from linguistics and anthropology. (CD)

**LIN 354. Field Methods in Linguistic Anthropology. (4 h)**

Trains students in basic skills of collecting and analyzing linguistic data at the levels of phonetics-phonology, grammar, lexico-semantics, discourse, and sociocultural context. Students will learn about the research questions that drive linguistic fieldwork as well as the relevant methods, tools and practical and ethical concerns. Also listed as ANT 354. P-ANT 150/LIN 150 or POI.

**LIN 355. Language and Culture. (3 h)**

Covers theoretical and methodological approaches to the study of language and culture, including: semiotics, structuralism, ethnoscience, the ethnography of communication, and sociolinguistics. Topics include: linguistic relativity; grammar and worldview; lexicon and thought; language use and social inequality; language and gender; and other areas. Also listed as ANT 355.

**LIN 375. Philosophy of Language. (3 h)**

A study of such philosophical issues about language as truth and meaning, reference and description, proper names, indexicals, modality, tense, the semantic paradoxes, and the differences between languages and other sorts of sign systems. Also listed as PHI 375. P-POI.

**LIN 380. Language Use and Technology. (3 h)**

Introduction to the fundamental concepts of creating and accessing large linguistic corpora (electronic collections of "real world" text) for linguistic inquiry. Course surveys a variety of cross-discipline efforts that employ corpus data for research and explores current applications. P-POI.

**LIN 383. Language Engineering: Localization and Terminology. (3 h)**

Introduction to the process of making a product linguistically and culturally appropriate to the target locale, and to computer-assisted terminology management. Surveys applications in translation technology. P-POI.

**LIN 390. The Structure of English. (3 h)**

An introduction to the principles and techniques of modern linguistics applied to contemporary American English. Also listed as ENG 390.

**LIN 398. Individual Study. (1-3 h)**

Designed to meet the needs of selected students, to be carried out under the supervision of a faculty member in the linguistics minor program. P-ANT 150/LIN 150 and POI.

**LIN 399. Individual Study. (1-3 h)**

Designed to meet the needs of selected students, to be carried out under the supervision of a faculty member in the linguistics minor program. P-ANT 150/LIN 150 and POI.

## Mathematics (MST)

**MST 105. Fundamentals of Algebra and Trigonometry. (1-3 h)**

A review of the essentials of algebra and trigonometry. Admission by permission only (generally, a student must have taken fewer than three years of high school mathematics to be eligible for admission). Not to be counted towards any major or minor offered by the department.

**MST 105L. Fundamentals of Algebra and Trigonometry Lab. (1-2 h)**

A review of the essentials of algebra and trigonometry in a guided laboratory setting. Admission by permission only. Not to be counted towards any major or minor offered by the department. Pass/Fail only.

**MST 107. Explorations in Mathematics. (4 h)**

An introduction to mathematical reasoning and problem solving. Topics vary by instructor and may include one or more of the following: knot theory, Euclidean and non-Euclidean geometry, set theory, cryptography, discrete models, number theory, discrete mathematics, chaos theory, probability, and MAPLE programming. Lab. (D, QR)

**MST 111. Calculus with Analytic Geometry I. (4 h)**

Functions of a real variable, trigonometric, exponential and logarithmic functions, limits, continuity, differentiation, applications of derivatives, indeterminate forms, introduction to integration, the fundamental theorem of calculus. Lab. (D, QR)

**MST 112. Calculus with Analytic Geometry II. (4 h)**

Techniques of integration, applications of integration, improper integrals, sequences, Taylor's formula, and infinite series, including power series. Lab. P-MST 111 or POI. (D, QR)

**MST 113. Multivariable Calculus. (4 h)**

The calculus of vector functions, including geometry of Euclidean space, differentiation, extrema, line integrals, multiple integrals, and Green's, Stokes', and divergence theorems. Lab. (D, QR)

**MST 117. Discrete Mathematics. (4 h)**

Introduction to various topics in discrete mathematics applicable to computer science including sets, relations, Boolean algebra, propositional logic, functions, computability, proof techniques, graph theory, and elementary combinatorics. Lab. (D, QR)

**MST 121. Linear Algebra I. (3 h)**

Vectors, linear transformations and matrices, the invertible matrix theorem, determinants, eigenvalues and eigenvectors, and orthogonal projections. Credit not allowed for both MST 121 and 205. (D, QR)

**MST 165. Problem-Solving Seminar. (1 h)**

Weekly seminar designed for students who wish to participate in mathematical competition such as the annual Putnam examination. Not to be counted toward any major or minor offered by the department. May be repeated for credit. Pass/Fail only.

**MST 205. Introduction to Linear Algebra and Differential Equations. (4 h)**

Specific topics covered include: vector algebra, solving linear systems of equations, rank, vector spaces, determinants, eigenvalues, linear transformations, first order differential equations, second order linear ordinary differential equations, and power series solutions to differential equations. Credit not allowed for both MST 205 and MST 251 or for both MST 205 and MST 121. P-MST 112 or POI.

**MST 214. Multivariable Analysis. (3 h)**

Functions between Euclidean spaces, multivariable limits, differentiation, change of variables, line and surface integrals, vector fields, integration theorems for vector fields, Implicit & Inverse Function Theorems, Contraction Mapping Theorem, applications, other selected topics from analysis in multiple dimensions. P-MST 113, and MST 121 or MST 205.

**MST 225. Linear Algebra II. (3 h)**

A continuation of the study of linear algebra and its applications over the real and complex numbers to include vector spaces, the spectral theorem, and the singular value decomposition. Additional topics may include quadratic forms, Gershgorin's circle theorem, analytic functions of matrices, pseudoinverses, and other topics chosen by the instructor. P-MST 112 and 121 or POI.

**MST 243. Codes and Cryptography. (3 h)**

Essential concepts in coding theory and cryptography. Congruences, cryptosystems, public key, Huffman codes, information theory, and other coding methods. P - MST 117 or POI. (D)

**MST 251. Ordinary Differential Equations. (3 h)**

Linear equations with constant coefficients, linear equations with variable coefficients, and existence and uniqueness theorems for first order equations. Credit not allowed for both MST 251 and MST 205. P-MST 112 or POI. (D, QR)

**MST 253. Operations Research. (3 h)**

Mathematical models and optimization techniques. Studies in linear programming, simplex method, duality, sensitivity analysis, and other selected topics. P-MST 111 and MST 121, 205, or POI. (D, QR)

**MST 254. Optimization Theory. (3 h)**

Unconstrained and constrained optimization problems; Lagrange multiplier methods; second-order sufficient conditions; inequality constraints; and Karush-Kuhn-Tucker conditions. P - MST 113 and 121 or POI.

**MST 283. Topics in Mathematics. (1-3 h)**

Topics in mathematics not considered in regular courses or which continue study begun in regular courses. Content varies.

**MST 306. Advanced Mathematics for the Physical Sciences. (3 h)**

Advanced topics in linear algebra, special functions, integral transforms and partial differential equations. Not to be counted toward any major offered by the department except for the major in mathematical business. P - MST 205 or POI.

**MST 311. Introductory Real Analysis I. (3 h)**

Limits and continuity in metric spaces, sequences and series, differentiation and Riemann-Stieltjes integration, uniform convergence, power series and Fourier series, differentiation of vector functions, implicit and inverse function theorems. P - MST 117 or POI. (D)

**MST 312. Introductory Real Analysis II. (3 h)**

Limits and continuity in metric spaces, sequences and series, differentiation and Riemann-Stieltjes integration, uniform convergence, power series and Fourier series, differentiation of vector functions, implicit and inverse function theorems. P - MST 117 or POI. (D)

**MST 317. Complex Analysis I. (3 h)**

Analytic functions, Cauchy's theorem and its consequences, power series, and residue calculus. P - MST 113 or POI. (D)

**MST 321. Modern Algebra I. (3 h)**

Introduction to modern abstract algebra through the study of groups, rings, integral domains, and fields. P - MST 121 or POI. (D)

**MST 322. Modern Algebra II. (3 h)**

A continuation of modern abstract algebra through the study of additional properties of groups, rings, and fields. P - MST 117 and 321 or POI. (D)

**MST 324. Advanced Linear Algebra. (3 h)**

Thorough treatment of vector spaces and linear transformations over an arbitrary field, canonical forms, inner product spaces, and linear groups. P - MST 121 and 321 or POI. (D)

**MST 326. Numerical Linear Algebra. (3 h)**

Numerical methods for solving matrix and related problems in science and engineering using a high-level matrix-oriented language such as MATLAB. Topics will include systems of linear equations, least squares methods, and eigenvalue computations. Special emphasis given to applications. Also listed as CSC 352. P-MST 112 and MST 121 or 205, or POI. (D)

**MST 331. Geometry. (3 h)**

An introduction to axiomatic geometry including a comparison of Euclidean and non-Euclidean geometries. P - MST 117 or POI. (D)

**MST 333. Introductory Topology. (3 h)**

Topics vary and may include knot theory, topological spaces, homeomorphisms, classification of surfaces, manifolds, Euler characteristic, and the fundamental group. P - MST 117 or POI.

**MST 334. Differential Geometry. (3 h)**

Introduction to the theory of curves and surfaces in two and three dimensional space, including such topics as curvature, geodesics, and minimal surfaces. P - MST 113 or POI. (D)

**MST 345. Elementary Number Theory. (3 h)**

Properties of integers, congruences, and prime numbers, with additional topics chosen from arithmetic functions, primitive roots, quadratic residues, Pythagorean triples, and sums of squares. P-MST 117. (D)

**MST 346. Modern Number Theory. (3 h)**

A selection of number theory topics of recent interest. Some examples include elliptic curves, partitions, modular forms, the Riemann zeta function, and algebraic number theory. P-MST 117. (D)

**MST 347. Graph Theory. (3 h)**

Paths, circuits, trees, planar graphs, spanning trees, graph coloring, perfect graphs, Ramsey theory, directed graphs, enumeration of graphs, and graph theoretic algorithms. P-MST 117 or POI. (D)

**MST 348. Combinatorial Analysis I. (3 h)**

Enumeration techniques, generating functions, recurrence formulas, the principle of inclusion and exclusion, Polya theory, graph theory, combinatorial algorithms, partially ordered sets, designs, Ramsey theory, symmetric functions, and Schur functions. P - MST 117 or POI. (D)

**MST 349. Combinatorial Analysis II. (3 h)**

Enumeration techniques, generating functions, recurrence formulas, the principle of inclusion and exclusion, Polya theory, graph theory, combinatorial algorithms, partially ordered sets, designs, Ramsey theory, symmetric functions, and Schur functions. P - MST 117 or POI. (D)

**MST 351. Introduction to Mathematical Modeling. (3 h)**

Introduction to the mathematical modeling, analysis and simulation of continuous processes using MATLAB, Mathematica or Maple. Topics include dimensional analysis, stability analysis, bifurcation theory, one-dimensional flows, phase plane analysis, index theory, limit cycles, chaotic dynamics, hyperbolic conservation laws and traveling waves. P-MST 121 and 251 or POI.

**MST 352. Partial Differential Equations. (3 h)**

A detailed study of partial differential equations, including the heat, wave, and Laplace equations, using methods such as separation of variables, characteristics, Green's functions, and the maximum principle. P - MST 113 and 251 or POI. (D)

**MST 353. Probability Models. (3 h)**

Introduction to probability models, Markov chains, Poisson processes and Markov decision processes. Applications will emphasize problems in business and management science. Also listed as STA 353. P-MST 111 and MST 121 or 205, or POI. (D)

**MST 354. Discrete Dynamical Systems. (3 h)**

Introduction to the theory of discrete dynamical systems as applied to disciplines such as biology and economics. Includes methods for finding explicit solutions, equilibrium and stability analysis, phase plane analysis, analysis of Markov chains, and bifurcation theory. P - MST 112 and 121 or POI. (D)

**MST 355. Introduction to Numerical Methods. (3 h)**

Numerical computations on modern computer architectures; floating point arithmetic and round-off error. Programming in a scientific/engineering language such as MATLAB, C, or FORTRAN. Algorithms and computer techniques for the solution of problems such as roots of functions, approximation, integration, systems of linear equations and least squares methods. Also listed as CSC 355. P-MST 112 and MST 121 or 205, or POI. (D)

**MST 357. Probability. (3 h)**

Probability distributions, mathematical expectation, and sampling distributions. MST 357 covers much of the material on the syllabus for the first actuarial exam. Also listed as STA 310. P-MST 112 or 205 or POI. (D)

**MST 359. Networks: Models and Analysis. (3 h)**

A course in fundamental network theory concepts, including measures of network structure, community detection, clustering, and network modelling and inference. Topics also draw from recent advances in the analysis of networks and network data, as well as applications in economics, sociology, biology, computer science, and other areas. Also listed as STA 352. P-MST 117 or MST 121 or MST 205 and one course in STA at the 200 level or above. (D)

**MST 372. Math, Statistics, and Society. (1-3 h)**

A survey of mathematical and statistical applications arising from problems in politics, social justice, or racial justice; and/or an examination of instances, present and historical, where mathematics and statistics function as a tool promoting inclusion or exclusion; and/or an exploration of mathematics and statistics as human endeavors and contributions from diverse populations. Topics vary by instructor. May not be counted toward any major or minor offered in the department. May be repeatable for credit with prior approval of the department. Pass/Fail only.

**MST 381. Individual Study. (1-3 h)**

A course of independent study directed by a faculty advisor. By prearrangement.

**MST 383. Advanced Topics in Mathematics. (1-3 h)**

Topics in mathematics not considered in regular courses or which continue study begun in regular courses. Content varies.

**MST 391. Senior Seminar Preparation. (1 h)**

Independent study or research directed by a faculty advisor by prearrangement with the adviser.

**MST 392. Senior Seminar Presentation. (1 h)**

Preparation of a paper, followed by a one-hour oral presentation based upon work in MST 391.

## Middle East & South Asia Studies (MES)

**MES 110. Introductory Topics in Middle East and South Asia Studies. (1-3 h)**

Introductory level course on selected topics in Middle East and South Asia Studies. May be repeated for credit if course content differs. (CD)

**MES 210. Intermediate Topics in Middle East and South Asia Studies. (1-3 h)**

Intermediate level course on selected topics in Middle East and South Asia Studies. May be repeated for credit if course content differs. (CD)

**MES 310. Advanced Topics in Middle East and South Asia Studies. (1-3 h)**

Advanced level course in selected topics in Middle East and South Asia Studies. May be repeated for credit if course content differs. (CD)

**MES 390. Individual Study. (1-3 h)**

Designed to meet the needs and interests of selected students who have declared the minor. Carried out under the supervision of a faculty member affiliated with the Middle East and South Asia Studies program. P-POI.

## Military Science (MIL)

**MIL 114. Leadership. (1.5 h)**

An examination of the fundamentals contributing to the development of a personal style of leadership with emphasis on the dimensions of junior executive management.

**MIL 117. Leadership Laboratory. (0 h)**

Basic military skills instruction designed to technically and tactically qualify the student for assumption of an officer leadership position at the small-unit level. Students learn the skills necessary to operate in a military environment and practical application of the basic leadership tenant. Focus is on teamwork, communication skills and application of basic military principles. Either Military Science 117 (fall) or 118 (spring) is required each semester for contracted AROTC cadets (including those conditionally contracted), advance designee scholarship winners.



**MIL 118. Leadership Laboratory. (0 h)**

Basic military skills instruction designed to technically and tactically qualify the student for assumption of an officer leadership position at the small-unit level. Students learn the skills necessary to operate in a military environment and practical application of the basic leadership tenant. Focus is on teamwork, communication skills and application of basic military principles. Either Military Science 117 (fall) or 118 (spring) is required each semester for contracted AROTC cadets (including those conditionally contracted), advance designee scholarship winners.

**MIL 119. Advanced Leadership Lab. (1 h)**

Focuses on practical application of time management, small unit organization, communication, and other leadership concepts learned in class to accomplish assigned missions. Laboratory sessions can be tactical (conducting a small unit mission) or managerial (solving an organizational problem). Grading is based on performance in leadership positions, teamwork, and application of principles from class instruction. MIL 227 and 228 cadets are required to plan training scenarios conducted at lab, supervise sessions, and build teams and future leaders through assessment and feedback. MIL 225 and 226 cadets will conduct training and be evaluated on their application of tactical and managerial skills learned in military science classes to solve problems or complete tactical missions. MIL 119 and 120 may be repeated once for credit.

**MIL 120. Advanced Leadership Lab. (1 h)**

Focuses on practical application of time management, small unit organization, communication, and other leadership concepts learned in class to accomplish assigned missions. Laboratory sessions can be tactical (conducting a small unit mission) or managerial (solving an organizational problem). Grading is based on performance in leadership positions, teamwork, and application of principles from class instruction. MIL 227 and 228 cadets are required to plan training scenarios conducted at lab, supervise sessions, and build teams and future leaders through assessment and feedback. MIL 225 and 226 cadets will conduct training and be evaluated on their application of tactical and managerial skills learned in military science classes to solve problems or complete tactical missions. MIL 119 and 120 may be repeated once for credit.

**MIL 121. Introduction to the Army. (3 h)**

Introduction to the skills critical for effective leadership included effective communication, teamwork, ethics, and cultural awareness. Cadets learn how the personal development of life skills such as critical thinking, goal setting, time management, physical fitness, and stress management relate to leadership, Officership, and the Army profession.

**MIL 122. Foundations of Leadership. (3 h)**

Introduction to army terms, philosophies, and basic leadership concepts. Builds individual skills and knowledge applicable to Army operations, both tactical and organizational, in order to develop students into exceptional leaders.

**MIL 123. Leadership and Ethics. (3 h)**

Explores the dimensions of creative and innovative leadership strategies and styles by developing an understanding of team dynamics an assessment of personal leadership traits in order to develop team leadership capabilities. Cadets practice aspects of personal motivation and team building in the context of planning, executing, and assessing team exercises and participating in leadership labs.

**MIL 124. Army Doctrine and Decision Making. (3 h)**

Examines the challenges of leading tactical teams in the complex contemporary operating environment (COE). Highlights dimensions of terrain analysis, patrolling, and operation orders, cultural considerations, unit dynamics, interaction with the media and care for subordinate's physical and mental well-being. Places lessons learned from MIL 124 on the Army leadership framework and the dynamics of adaptive leadership in the context of military operations to prepare cadets for leadership roles as they enter the advanced courses.

**MIL 225. Training Management and the Warfighting Functions. (3 h)**

Challenges cadets to study, practice, and evaluate adaptive leaderships skills as they are presented with challenging scenarios related to squad tactical operations. Cadets receive systematic and specific feedback on their leadership attributes and actions. Based on such feedback, as well as their own self-evaluations, cadets continue to develop their leadership and critical thinking abilities. The focus is developing cadets' tactical leadership abilities to enable them to succeed at ROTC's summer Advanced Camp. P - MIL 121 through MIL 124 (or equivalent credit as determined by the professor of military science).

**MIL 226. Applied Leadership in Small Unit Operations. (3 h)**

Uses increasingly challenging leadership opportunities to build cadet confidence and skills in leading tactical and garrison operations up to platoon level. Cadets review aspects of the range of Army operations and specifics of different functional areas within the Army. They also conduct military briefings and develop proficiency in garrison operation orders. Focus is on exploring, evaluating, and developing skills in decision-making, persuading, and motivating team members in the contemporary operating environment. Cadets are evaluated on what they know and do as leaders as they prepare to attend the ROTC summer Advanced Camp. P - MIL 121 through MIL 225 (or equivalent credit as determined by the professor of military science)

**MIL 227. The Army Officer. (3 h)**

This course transitions the focus of from being trained, mentored and evaluated as a cadet to learning how to train, mentor and evaluate underclass cadets. Cadets will learn the duties and responsibilities of an Army staff officer and apply the Military Decision Making Process, Army writing style and the Army's principles of training and training management. Cadets will learn about the special trust proposed by the U.S. Constitution to Army Officers- a trust above and beyond other professions. Cadets will learn Army values and ethics and how to apply them to everyday life as well as in the Contemporary Operating Environment. The cadets will learn about the officer's role in the Uniform Code of Military Justice, counseling subordinates, administrative actions and methods on how to best manage their career as an Army officer. P- MIL 121 through MIL 226 (or equivalent credit as determined by the professor of military science).

**MIL 228. Company Grade Leadership. (3 h)**

Continuation of MIL 227 with emphasis on the transition from cadet to officer. Explores the dynamics of leading military operations in the complex environment facing military officers. Cadets examine differences in customs and courtesies, military law, principles of war, and Rules of Engagement in the face of international terrorism. They also explore aspects of interacting with non-government organizations, civilians on the battlefield, and host nation support. Cadets will gain a foundation of knowledge regarding government and military policy based on hands-on case study scenarios involving current and past events. P- MIL 121 through MIL 227 (or equivalent credit as determined by the professor of military science).



**MIL 229. American Military History. (3 h)**

The American military experience with emphasis on the ideas and activities contributing to the development of the United States' unique military establishment. Particular emphasis on civilian control of the military. Credit not allowed for both MIL 229 and HST 369. P - POI.

## Music (MUS)

**MUS 100. Music Recitals. (0 h)**

Recitals, concerts, and guest lectures sponsored by the Department of Music and the Secrest Artists Series. (Specific attendance requirements will be established at the beginning of each semester.) Four semesters are required of music majors; three semesters are required of music minors. Pass/Fail only.

**MUS 101. Introduction to Western Music. (3 h)**

Basic theoretical concepts and musical terminology. Survey of musical styles, composers, and selected works from the Middle Ages through the present day. Satisfies the Division III requirement. May not count toward the majors or minor in music. (D)

**MUS 103. Music Production and Recording. (1.5 h)**

Introduction to modern recording techniques with hands-on experience in a multi-track recording studio. Topics to be addressed include basic acoustics of music, microphone techniques, digital audio workstation operation, and basic production techniques.

**MUS 104. Basic Music Reading and Skills. (1.5 h)**

A study of the fundamentals of music theory including key signatures, scales, intervals, chords, and basic sight-singing and ear-training skills. Designed for students wishing to participate in University ensembles and those wishing to pursue vocal, instrumental, and compositional instruction. May not count toward the majors or minor in music.

**MUS 106. Electronic Music Lab. (1.5 h)**

Foundations of MIDI protocol, with particular attention to the study and application of sequencers, notational programs, and synthesizers. Development of skills in written notation through use of computerized programs. Taught in the Music Computer Lab. P-MUS 101, 104, or POI.

**MUS 108. Alexander Technique for Musical Performers. (0.5 h)**

An educational process that uses verbal and tactile feedback to teach improved use of the student's body by identifying and changing poor and inefficient habits that cause stress, fatigue, and pain in the musical performer. This is a course designed to teach the performer to minimize physical effort and maximize expression. Meets two hours per week. Pass/Fail only.

**MUS 109. Introduction to the Music of World Cultures. (3 h)**

Survey of music in selected societies around the world. Topics will be selected from the following areas of concentration: India, East Asia, sub-Saharan Africa, western Europe, Latin America, and vernacular music of the U.S. (including jazz). May not count toward the majors or minor in music. Meets concurrently with MUS 209. Credit cannot be received for both MUS 109 and 209. (CD, D)

**MUS 111. Opera Workshop. (1 h)**

Study, staging, and performance of standard and contemporary operatic works. P-POI.

**MUS 112. Collegium Musicum Instrumental. (1 h)**

An ensemble stressing the performance practices and the performance of music of the medieval, Renaissance, and Baroque eras.

**MUS 113. Orchestra. (1 h)**

Study and performance of orchestral works from the classical and contemporary repertoire. P-Audition.

**MUS 114. Collegium Musicum Vocal. (1 h)**

An ensemble stressing the performance practices and the performance of music of the medieval, Renaissance, and Baroque eras. P-Audition.

**MUS 115. Concert Choir. (1 h)**

Select large mixed ensemble which travels internationally and performs the significant choral literature from the past five centuries. P-Audition.

**MUS 116. Chamber Choir. (1 h)**

Select small mixed ensemble which performs repertoire from classical choral genres, musical theatre, vocal jazz, and a cappella. P-audition.

**MUS 117. Gamelan Ensemble. (1 h)**

Cultural study and performance of traditional and new compositions for Balinese gamelan (percussion orchestra) and Balinese dance.

**MUS 118. Wind Ensemble. (1 h)**

Study and performance of music for mixed ensemble of winds, brass, and percussion. P-Audition.

**MUS 119. Symphonic Band. (1 h)**

Study and performance of music for symphonic band. Performs on campus.

**MUS 120. Chamber Music. (1 h)**

Study and performance of chamber music. Performers are strongly urged to participate in a larger ensemble as well. P-POI.

**MUS 120A. Chamber Music-Percussion. (1 h)****MUS 120B. Chamber Music-String. (1 h)****MUS 120C. Chamber Music-Brass. (1 h)****MUS 120D. Chamber Music-Woodwind. (1 h)****MUS 120E. Chamber Music-Mixed. (1 h)****MUS 120F. Chamber Music-Clarinet. (1 h)****MUS 120G. Chamber Music-Saxophone. (1 h)****MUS 120H. Chamber Music-Guitar. (1 h)****MUS 120I. Chamber Music-Keyboards. (1 h)****MUS 121. Jazz Ensemble. (1 h)**

Study and performance of written and improvised jazz for big band and combo ensembles.

**MUS 122. Music Theatre Practicum. (1 h)**

For musicians who perform in a departmentally-sponsored theatrical production (when their performance is not as a member of a departmental ensemble). May not be counted toward the majors or minor in music. Credit may be earned in a given semester for either MUS 122 or THE 283, but not both. Course may be repeated for no more than four hours. Pass/Fail only. P-POI.

**MUS 123. Woodwind Doubling. (1 h)**

Practical skills for woodwind instrumentalists who participate in musical theatre productions for which expertise on more than one instrument is required.

**MUS 124. Small Ensemble. (1 h)**

Study and performance of conducted works for small ensemble. Performers are strongly urged to participate in a larger ensemble as well. P-POI.

**MUS 124A. Small Ensemble: Percussion Ensemble. (1 h)****MUS 124B. Small Ensemble: Flute Choir. (1 h)****MUS 124C. Small Ensemble: Clarinet Choir. (1 h)****MUS 124D. Small Ensemble: Saxophone Ensemble. (1 h)****MUS 124E. Small Ensemble: Brass Choir. (1 h)****MUS 124F. Small Ensemble: Vocal Ensemble. (1 h)****MUS 124G. Small Ensemble: Mixed Ensemble. (1 h)****MUS 125. Music and Public Engagement. (0.5 h)**

Opportunities for students taking performance study or ensemble to perform in the community, under the supervision of the instructor of the performance study or ensemble. Students attend a required training session and generate on-site performances. If performing for special-needs audiences, students attend an additional required training session, a journal, log, and 15 contact hours of training, travel, and on-site performances. Pass/Fail only. May be repeated. C-Any course listed under "Ensemble" or "Performance Study", and POI.

**MUS 126. Afro-Cuban Drumming. (1 h)**

Exploration of the music and history of West African drumming through hands-on experience. Students learn to play jembe, dunun, shekere, iron bell, and their New World descendants, the conga drum, bongo, claves, maracas, and agogo bells.

**MUS 127. Chinese Ensemble. (1 h)**

Performance of traditional and new Chinese music compositions. Experience on Chinese traditional instruments (dizi, erhu, guzheng, pipa, ruan, percussion, etc.) preferred, but instrumentalists and vocalists of all traditions welcome.

**MUS 128. Athletic Band I. (1 h)**

Performs at most football games, as well as men's and women's home basketball games. Meets twice weekly. Regular performances on and off campus. Offered in fall.

**MUS 129. Athletic Band II. (0.5 h)**

Performs at men's and women's home basketball games, and at the spring football game. Meets from the beginning of the semester to spring break. Offered in spring. P-MUS 128 or POI.

**MUS 131. World of Musical Instruments. (3 h)**

Historical survey of musical instruments by families. Instruments of Western art music, selected world cultures, and vernacular music of the United States, as well as electronic instruments. Emphasis on the cultural, sociological, and technological as well as the musical aspects of instruments. Meets concurrently with MUS 231. Credit cannot be received for both MUS 131 and 231. (D)

**MUS 132. Introduction to Beethoven. (3 h)**

Introduction to the life and works of Ludwig van Beethoven. May not count toward the majors or minor in music. Meets concurrently with MUS 232. (D)

**MUS 134. Music of Asia. (3 h)**

Survey of classical, vernacular, and popular musical traditions in selected Asian cultures, focusing on India, China, Japan, Korea, and Southeast Asia. The course will also examine the influence of Asian and Western philosophy and musical aesthetics on the development of the music, theater, and dance of Asia. Meets concurrently with MUS 234. Students may not receive credit for both MUS 134 and 234. (CD, D)

**MUS 140. Introduction to Modern Popular Music. (3 h)**

A survey of the history of popular music focusing on the United States from 1955-present that examines influential music genres and individual artists as well as situating their repertoires within sociocultural, political, economic, and technological contexts. May not count toward the major or minor in music. Meets concurrently with MUS 240. Credit cannot be received for both MUS 140 and 240. (CD, D)

**MUS 161. Individual Instruction. (0.5 h)**

Technical studies and repertoire of progressive difficulty selected to meet the needs and abilities of the student. One half-hour lesson per week. (See the fee section of this bulletin for specific information regarding additional costs.) Does not fulfill the individual instruction requirements for the major in music performance. May be repeated for credit. P-POI.

**MUS 161A. Individual Instruction: Violin. (0.5 h)****MUS 161AA. Individual Instruction: Carillon. (0.5 h)****MUS 161B. Individual Instruction: Viola. (0.5 h)****MUS 161C. Individual Instruction: Cello. (0.5 h)****MUS 161D. Individual Instruction: Bass. (0.5 h)****MUS 161E. Individual Instruction: Flute. (0.5 h)****MUS 161F. Individual Instruction: Oboe. (0.5 h)****MUS 161G. Individual Instruction: Clarinet. (0.5 h)****MUS 161H. Individual Instruction: Bassoon. (0.5 h)****MUS 161I. Individual Instruction: Saxophone. (0.5 h)****MUS 161J. Individual Instruction: Trumpet. (0.5 h)****MUS 161JI. Individual Instruction: Jazz Saxophone. (0.5 h)****MUS 161JJ. Individual Instruction: Jazz Trumpet. (0.5 h)****MUS 161JP. Individual Instruction: Jazz Piano. (0.5 h)****MUS 161JR. Individual Instruction: Jazz Guitar. (0.5 h)****MUS 161K. Individual Instruction: French Horn. (0.5 h)****MUS 161L. Individual Instruction: Trombone. (0.5 h)****MUS 161M. Individual Instruction: Baritone. (0.5 h)****MUS 161N. Individual Instruction: Tuba. (0.5 h)****MUS 161O. Individual Instruction: Organ. (0.5 h)****MUS 161P. Individual Instruction: Piano. (0.5 h)****MUS 161Q. Individual Instruction: Percussion. (0.5 h)****MUS 161R. Individual Instruction: Guitar. (0.5 h)****MUS 161S. Individual Instruction: Harp. (0.5 h)****MUS 161T. Individual Instruction: Electric Bass. (0.5 h)****MUS 161U. Individual Instruction: Accompanying. (0.5 h)****MUS 161V. Individual Instruction: Voice. (0.5 h)****MUS 161W. Individual Instruction: Recorder. (0.5 h)****MUS 161X. Individual Instruction: Viola da Gamba. (0.5 h)****MUS 161Y. Individual Instruction: Harpsichord. (0.5 h)****MUS 161Z. Individual Instruction: Jazz Improvisation. (0.5 h)****MUS 162. Individual Instruction. (1 h)**

One one-hour lesson per week. (See the fee section of this bulletin for specific information regarding additional costs.) Does not fulfill the individual instruction requirements for the major in music performance. May be repeated for credit. P-POI.

**MUS 162A. Individual Instruction: Violin. (1 h)****MUS 162AA. Individual Instruction: Carillon. (1 h)****MUS 162B. Individual Instruction: Viola. (1 h)****MUS 162C. Individual Instruction: Cello. (1 h)****MUS 162D. Individual Instruction: Bass. (1 h)****MUS 162E. Individual Instruction: Flute. (1 h)****MUS 162F. Individual Instruction: Oboe. (1 h)****MUS 162G. Individual Instruction: Clarinet. (1 h)****MUS 162H. Individual Instruction: Bassoon. (1 h)****MUS 162I. Individual Instruction: Saxophone. (1 h)****MUS 162J. Individual Instruction: Trumpet. (1 h)****MUS 162JI. Individual Instruction: Jazz Saxophone. (1 h)****MUS 162JJ. Individual Instruction: Jazz Trumpet. (1 h)****MUS 162JK. Indiv Instr - Jazz Trumpet. (1 h)****MUS 162JP. Individual Instruction: Jazz Piano. (1 h)****MUS 162JR. Individual Instruction: Jazz Guitar. (1 h)****MUS 162K. Individual Instruction: French Horn. (1 h)****MUS 162L. Individual Instruction: Trombone. (1 h)****MUS 162M. Individual Instruction: Baritone. (1 h)****MUS 162N. Individual Instruction: Tuba. (1 h)****MUS 162O. Individual Instruction: Organ. (1 h)****MUS 162P. Individual Instruction: Piano. (1 h)****MUS 162Q. Individual Instruction: Percussion. (1 h)****MUS 162R. Individual Instruction: Guitar. (1 h)****MUS 162S. Individual Instruction: Harp. (1 h)****MUS 162T. Individual Instruction: Electric Bass. (1 h)****MUS 162U. Individual Instruction: Accompanying. (1 h)****MUS 162V. Individual Instruction: Voice. (1 h)****MUS 162W. Individual Instruction: Recorder. (1 h)****MUS 162X. Individual Instruction: Viola da Gamba. (1 h)****MUS 162Y. Individual Instruction: Harpsichord. (1 h)****MUS 162Z. Individual Instruction: Jazz Improvisation. (1 h)****MUS 165J. Brass Rudiments. (0.5 h)**

Introduction to the fundamentals of playing brass instruments. Designed for students with musical experience as well as beginners with no prior musical training. Offered in spring. P-POI.

**MUS 165Q. Class Percussion. (0.5 h)**

Introduction to the fundamentals of playing percussion instruments. Includes an introduction to reading music as well as basic techniques on instruments of the percussion family. P-POI.

**MUS 165R. Class Guitar I. (0.5 h)**

For beginner students. Introduction to finger style guitar techniques: strumming, plucking, arpeggios, and damping. Reading and playing from musical notation. Nylon string guitar is required.

**MUS 165V. Class Voice I. (0.5 h)**

Introduction to the fundamental principles of singing, concepts of breath control, tone, and resonance. P-POI.

**MUS 166R. Class Guitar II. (0.5 h)**

Continuation of finger style guitar techniques with emphasis on chordal progressions, scales, accompanying patterns, and sight-reading. Nylon string guitar required. P-MUS 165R.

**MUS 166V. Class Voice II. (0.5 h)**

Continuation of fundamental vocal techniques. P-MUS 165V or POI.

**MUS 167V. Theatrical Singing I: Class Voice. (0.5 h)**

Basic techniques of singing, breath control, phonation, and resonance, with emphasis on theatrical projection. Study and performance of musical theater repertoire. One hour per week. P-POI.

**MUS 168V. Theatrical Singing II: Class Voice. (0.5 h)**

Continuation of theatrical singing techniques with increased study and performance of musical theater repertoire. One hour per week. P-MUS 167V or POI.

**MUS 171. Music Theory I. (4 h)**

Music fundamentals (key signatures, scales, modes, intervals, chords), simple part-writing, sight-singing, dictation and keyboard harmony. Prerequisite for the audition in music performance. Designed for music majors and minors. Offered in fall. (D)

**MUS 172. Music Theory II. (4 h)**

Seventh chords, secondary chords, altered chords, part-writing, basic counterpoint, basic musical forms, sight-singing, dictation and keyboard harmony. Offered in spring. P-MUS 171.

**MUS 173. Music Theory III. (4 h)**

Altered chords, continuation of part-writing, 18th- and 19th-century forms, ear training, sight-singing, dictation, rhythmic skills, and keyboard harmony. Offered in fall. P-MUS 172.

**MUS 174. Music Theory IV. (4 h)**

Expanded harmony and techniques from Impressionism to the present. New concepts of style and form. Ear training, sight-singing, dictation, rhythmic skills, and keyboard harmony. Offered in spring. P-MUS 173.

**MUS 175V. Advanced Voice Class. (1 h)**

Development of advanced vocal technique and repertoire. Limited to eight students. Two hours per week; may be repeated. P-MUS 166V or POI.

**MUS 177V. Advanced Theatrical Singing. (1 h)**

Development of advanced theatrical singing technique and performance of musical theater repertoire. Limited to eight students. Two hours per week; may be repeated. P-MUS 168V or POI.

**MUS 178. Class Piano I. (1 h)**

Class piano for beginners. Pentascales in all keys, all major and minor chords, arpeggios, improvisation, technique, introduction to music notation through playing pieces in various styles appropriate to the beginning level.

**MUS 179. Class Piano II. (1 h)**

Continuation of foundational principles. Early intermediate repertoire, scales hands together, principles of fingering, musical approach to learning, chords, arpeggios and ensemble duets. P-MUS 178 or POI.

**MUS 181. Music History I. (3 h)**

History of western art music from the ancient Greeks to 1750. It is recommended that students take MUS 171 before enrolling in MUS 181. Reading knowledge of music is essential. Offered in fall. P-MUS 171 or POI. (D)

**MUS 182. Music History II. (3 h)**

History of western art music from 1750 to World War I. It is recommended that students take MUS 171 before enrolling in MUS 182. Reading knowledge of music is essential. Offered in spring. P-MUS 171 or POI. (D)

**MUS 183. Music History III. (3 h)**

History of western art music from the beginning of the 20th century to the present day and its associations with other cultures and disciplines. Reading knowledge of music is essential. Offered in fall. P-MUS 171 or POI. (D)

**MUS 190. Diction for Singers. (1.5 h)**

Study of articulation in singing, with emphasis on modification of English; pronunciation of Italian, German, and French. Development of articulatory and aural skills with use of the international phonetic alphabet. Individual performance and coaching in class. (Two hours per week.) May not be repeated for credit.

**MUS 203. Jazz. (3 h)**

Survey of American jazz from its origin to the present. P- POI. (CD, D)

**MUS 205. History of American Music Theatre. (3 h)**

Survey of the American musical from its origins to the present. P—POI. (CD, D)

**MUS 207. American Music. (3 h)**

A study of the musical sources of American culture and the six streams of music in the United States: folk and ethnic musics, offsprings of the rural South (country music, blues, rock), jazz and its forerunners, popular sacred music, popular secular music, and art music. (CD, D)

**MUS 208. Women and Music. (3 h)**

Historical overview of women musicians in society. (CD, D)

**MUS 209. Music of World Cultures. (3 h)**

Survey of music in selected societies around the world. Topics will be selected from the following areas of concentration: India, East Asia, sub-Saharan Africa, Western Europe, Latin America, and vernacular music of the United States (including jazz). Students complete a project or projects on the technical or theoretical aspects of the music of world cultures. Designed for music majors and minors in cultural resource preservation. Meets concurrently with MUS 109. Credit cannot be received for both MUS 109 and 209. P-MUS 172 or POI. (CD, D)

**MUS 210. Survey of Latin American Music. (3 h)**

A survey of art, folk, and popular musical styles in Latin America and their impact on music of other cultures. Divided into three areas of study: the Caribbean, Central America, and South America. (CD, D)

**MUS 212. Music in the Church. (3 h)**

Function of church musicians and the relationship of their work to the church program. Offers to musician and non-musician alike historical overview, hymnody survey and other church music-related topics through class and guest lectures and practical seminars. P-POI.

**MUS 214. Music of Italy. (3 h)**

Study of art music composed in Italy, with special emphasis on composers associated with Venice. Offered only at Casa Artom in Venice. (D)

**MUS 215. Philosophy of Music. (3 h)**

A survey of philosophical writings about music. Musical aesthetics; social, religious, and political concerns.

**MUS 219. Music in Vienna. (3 h)**

Study of the music and musical institutions of Vienna and Central Europe. Taught in English. Offered only at the Flow House in Vienna. (D)

**MUS 220. Seminar in Music History. (3 h)**

Intensive study of a selected topic in music history. P-MUS 174, 181, 182, 183, or POI. (D)

**MUS 231. World of Musical Instruments. (3 h)**

Historical survey of musical instruments by families. Instruments of Western art music, selected world cultures, and vernacular music of the United States, as well as electronic instruments. Students complete a project or projects on the technical or theoretical aspects of instruments. Designed for music majors and minors. Meets concurrently with MUS 131. Credit cannot be received for both MUS 131 and 231. P-MUS 171 or POI. (D)

**MUS 232. Beethoven. (3 h)**

The life and works of Ludwig van Beethoven. Students complete a project or projects on the technical or theoretical aspects of Beethoven's music. Meets concurrently with MUS 132. Credit cannot be received for both MUS 132 and 232. P-POI. (D)

**MUS 234. Music of Asia. (3 h)**

Survey of classical, vernacular, and popular musical traditions in selected Asian cultures, focusing on India, China, Japan, Korea, and Southeast Asia. The course will also examine the influence of Asian and Western philosophy and musical aesthetics on the development of the music, theater, and dance of Asia. Students will complete a project or projects on the technical or theoretical aspects of music of Asia. Designed for music majors and minors. Meets concurrently with MUS 134. Students may not received credit for both MUS 134 and 234. (CD, D)

**MUS 240. Modern Popular Music. (3 h)**

A survey of the history of popular music focusing on the United States from 1955-present that examines influential music genres and individual artists as well as situating their repertoires within sociocultural, political, economic, and technological contexts. Students complete a final project on an aspect of popular music. Designed for music majors and minors. Meets concurrently with MUS 140. Credit cannot be received for both MUS 140 and 240. P - MUS 172 or POI. (CD, D)

**MUS 262. Individual Instruction. (1.5 h)**

One one-hour lesson per week. (See the fee section of this bulletin for specific information regarding additional costs) Fulfills the individual instruction requirements for the major in music performance. May be repeated for credit. P - 2 hours of MUS 161 and/or MUS 162, plus successful completion of the audition for the major in musical performance, and POI.



**MUS 262A. Individual Instruction: Violin. (1.5 h)****MUS 262B. Individual Instruction: Viola. (1.5 h)****MUS 262C. Individual Instruction: Cello. (1.5 h)****MUS 262D. Individual Instruction: Bass. (1.5 h)****MUS 262E. Individual Instruction: Flute. (1.5 h)****MUS 262F. Individual Instruction: Oboe. (1.5 h)****MUS 262G. Individual Instruction: Clarinet. (1.5 h)****MUS 262H. Individual Instruction: Bassoon. (1.5 h)****MUS 262I. Individual Instruction: Saxophone. (1.5 h)****MUS 262J. Individual Instruction: Trumpet. (1.5 h)****MUS 262K. Individual Instruction: French Horn. (1.5 h)****MUS 262L. Individual Instruction: Trombone. (1.5 h)****MUS 262M. Individual Instruction: Baritone. (1.5 h)****MUS 262N. Individual Instruction: Tuba. (1.5 h)****MUS 262O. Individual Instruction: Organ. (1.5 h)****MUS 262P. Individual Instruction: Piano. (1.5 h)****MUS 262Q. Individual Instruction: Percussion. (1.5 h)****MUS 262R. Individual Instruction: Guitar. (1.5 h)****MUS 262S. Individual Instruction: Harp. (1.5 h)****MUS 262T. Individual Instruction: Electric Bass. (1.5 h)****MUS 262U. Individual Instruction: Accompanying. (1.5 h)****MUS 262V. Individual Instruction: Voice. (1.5 h)****MUS 262W. Individual Instruction: Recorder. (1.5 h)****MUS 262X. Individual Instruction: Viola da Gamba. (1.5 h)****MUS 262Y. Individual Instruction: Harpsichord. (1.5 h)****MUS 262Z. Individual Instruction: Jazz Improvisation. (1.5 h)****MUS 272. Performance and Analysis. (1.5 h)**

Individual instruction in practical music analysis for research and performance preparation. P-MUS 172 or POI.

**MUS 273. Composition. (1-1.5 h)**

Individual instruction in the craft of musical composition. May be repeated for credit. P - MUS 172 or POI.

**MUS 279. Internship in Music. (1-3 h)**

A supervised learning experience in music, in a work environment, for academic credit. No more than 3 hours may be counted toward a music major or minor. For further information, consult the Music Student Handbook. P-Declaration of a music major or minor, minimum Wake Forest GPA of 2.75, permission of faculty internship director. Pass/Fail only.

**MUS 280. Orchestration. (3 h)**

Study of the orchestral and wind band instruments, how composers have used them throughout history, and the development of practical scoring and manuscript skills. Offered in spring. P-MUS 174, MUS 182, and MUS 183 or POI.

**MUS 282. Conducting. (3 h)**

A study of choral and instrumental conducting techniques. P-MUS 172 or POI.

**MUS 283. Roots of Song. (3 h)**

Interdisciplinary investigation of poetry and song in the Middle Ages and early Renaissance. Study of the evolution of poetic and musical genres and styles, both sacred and secular. Students must complete a project or projects on the technical or theoretical aspects of early song. Students may not receive credit for both MUS 283 and ENG 313.

**MUS 284. Music Literature Seminar. (3 h)**

Survey of repertoire, including an examination of teaching materials in the student's special area of interest. (D)

**MUS 284A. Music Literature Seminar: Orchestral Literature. (3 h)****MUS 284B. Music Literature Seminar: Choral Literature. (3 h)****MUS 284C. Music Literature Seminar: Piano Literature. (3 h)****MUS 284D. Music Literature Seminar: Guitar Literature. (3 h)****MUS 284E. Music Literature Seminar: Vocal Literature. (3 h)****MUS 284F. Music Literature Seminar: Opera. (3 h)****MUS 285. Special Topics in Music. (1-3 h)**

An intensive study of a selected subject chosen by faculty prior to the term in which the course is offered. May be repeated if course content differs. P-POI.

**MUS 298. Independent Study. (1-3 h)**

Project in an area of study not otherwise available in the department. By pre-arrangement with department chair. P-Minimum Wake Forest GPA of 2.75.

**MUS 362. Senior Recital. (3 h)**

Preparation and public performance of a recital. (See the fee section of this bulletin for specific information regarding additional costs.) Fulfills the individual instruction requirements for the major in music performance. To be taken only during the senior year. A student may not receive credit for both MUS 362 and 363. A student may not enroll in MUS 262 and 362 in the same semester. May not be repeated for credit. P-Two semesters of MUS 262 and POI.

**MUS 363. Senior Honors Recital. (3 h)**

Preparation and public performance of a recital at the honors level. (See the fee section of this bulletin for specific information regarding additional costs.) Fulfills the individual instruction requirements for the major in music performance. To be taken only during the senior year. A student may not receive credit for both MUS 362 and 363. A student may not enroll in MUS 262 and 363 in the same semester. May not be repeated for credit. P-Faculty selection for honors in music.

**MUS 396. Senior Project Preparation. (1 h)**

Research, outlining, and other work preliminary to the completion of the written document in MUS 397 or 398. Optional for the music in liberal arts major. May not be taken concurrently with or after MUS 397 or 398. By prearrangement.

**MUS 397. Senior Project. (3 h)**

Writing and public presentation of a major composition, research paper, music analysis or conducting endeavor, according to criteria on file in the department. A student may not receive credit for both MUS 397 and 398. By prearrangement.

**MUS 398. Senior Honors Project. (3 h)**

Writing and public presentation of a major composition, research paper, music analysis, or conducting endeavor, according to criteria on file in the department. A student may not receive credit for both MUS 397 and 398. P-Faculty selection for Honors in Music.



## Near Eastern Lang. & Lit. (NLL)

### NLL 111. Elementary Hebrew. (3 h)

A course for beginners in the classical Hebrew of the Bible, with emphasis on the basic principles of grammar and the reading of biblical texts. Both semesters must be completed.

### NLL 112. Elementary Hebrew. (3 h)

A course for beginners in the classical Hebrew of the Bible, with emphasis on the basic principles of grammar and the reading of biblical texts. Both semesters must be completed.

### NLL 153. Intermediate Hebrew. (3 h)

Intensive work in Hebrew grammar and syntax. Based upon the reading of selected texts. Readings emphasize post-biblical Hebrew. P-NLL 111 and NLL 112 or the equivalent.

### NLL 211. Hebrew Literature. (3 h)

The reading and discussion of significant Biblical Hebrew texts. P-NLL 153.

### NLL 212. Hebrew Literature II. (3 h)

The reading and discussion of significant Biblical and post-Biblical texts. On request. P-NLL 153.

### NLL 213. Studies in Modern Hebrew. (3 h)

Intended for students with a working knowledge of Classical Hebrew, this course will explore some of the primary differences between the linguistic groups and will introduce students to the formal study of Modern Hebrew. POI required.

### NLL 301. Introduction to Semitic Languages. (3 h)

A comparative study of the history and structure of the languages of the Semitic family. On request.

### NLL 302. Akkadian I. (3 h)

An analysis of the phonology, morphology, and syntax of the East Semitic languages of the ancient Near East as they relate to the larger family of Semitic languages. On request.

### NLL 303. Akkadian II. (3 h)

A continuation of Akkadian I (NLL 302) with further emphasis on building expertise in vocabulary and syntax through the reading of texts from the Middle Babylonian period. On request.

### NLL 310. Intermediate Readings in Classical Hebrew. (1 h)

Analysis of selected texts designed to expand the student's facility with Hebrew. May be repeated for credit.

### NLL 311. Aramaic. (3 h)

The principles of Aramaic morphology, grammar, and syntax based on readings from the Bible and other ancient Near Eastern texts. P-NLL 112 or POI. On request.

### NLL 314. Readings from the Rabbis. (3 h)

Selected texts in Hebrew and Aramaic from the Mishna and Midrash. On request. P-NLL 211 or POI.

### NLL 321. Introduction to Middle Egyptian I. (3 h)

The phonology, morphology, and grammar of Middle Egyptian. On request.

### NLL 322. Introduction to Middle Egyptian II. (3 h)

The phonology, morphology, and grammar of Middle Egyptian. On request.

## Neuroscience (NEU)

### NEU 200. Introduction to Neuroscience. (3 h)

An interdisciplinary course taught by faculty representing several fields. Topics include neurophysiology, sensory biology, motor mechanisms, psychopharmacology, cognitive neuroscience, perception, and developmental neuroscience. P-BIO 150 or PSY 151 and sophomore standing. Fall only.

### NEU 201. Neuroscience Laboratory. (1 h)

Examines principles of neuroscience ranging from the molecular and cellular to the behavioral and cognitive. Lab-3 hours. C-NEU 200. Fall only.

### NEU 300. Neuroscience Seminars. (3 h)

Consideration of current neuroscience topics. Presentations of current research by faculty on the Reynolda Campus or the Wake Forest University School of Medicine. Readings from the primary literature will accompany the presentations. P-NEU 200 or POI. Spring only.

### NEU 301. Topics in Neuroscience. (1-4 h)

Seminar and/or lecture courses in selected topics, some involving laboratory instruction. May be repeated if the course title differs.

### NEU 302. Topics in Neuroscience. (1-4 h)

Seminar and/or lecture courses in selected topics, some involving laboratory instruction. May be repeated if the course title differs.

### NEU 303. Topics in Neuroscience. (1-4 h)

Seminar and/or lecture courses in selected topics, some involving laboratory instruction. May be repeated if the course title differs.

### NEU 304. Topics in Neuroscience. (1-4 h)

Seminar and/or lecture courses in selected topics, some involving laboratory instruction. May be repeated if the course title differs.

### NEU 391. Research in Neuroscience. (2 h)

Supervised independent laboratory investigation in neuroscience. P-POI.

### NEU 392. Research in Neuroscience. (2 h)

Continued supervised independent laboratory investigation in Neuroscience. Not to be counted toward the minor. P-NEU 391 and POI.

### NEU 393. Research in Neuroscience. (2 h)

Continued supervised independent laboratory investigation in Neuroscience. Not to be counted toward the minor. P-NEU 392 and POI.

### NEU 394. Research in Neuroscience. (2 h)

Continued supervised independent laboratory investigation in Neuroscience. Not to be counted toward the minor. P-NEU 393 and POI.

## Philosophy (PHI)

### PHI 111. Problems of Philosophy. (3 h)

Examines the basic concepts of several representative philosophers, including their accounts of the nature of knowledge, persons, God, mind, and matter. (D)

### PHI 112. Introduction to Philosophical Ideas. (3 h)

How and why does philosophy engage religious belief and common sense? Why is the purposive world of pre-modern life abandoned by modern naturalism, skepticism, and existentialism? How are our contemporary ideas of self and world expressions of these opposing conceptions of life, love, and meaning? (D)

### PHI 113. Knowledge and Reality. (3 h)

Examination of three interconnected philosophic problems: the nature of existence; the distinction between truth and falsity; and the question of what it means to know. (D)

**PHI 114. Philosophy of Human Nature. (3 h)**

A study of selected topics bearing on human nature, such as free will and determinism, the relation of mind and body, personal identity and personhood, and immortality. (D)

**PHI 115. Introduction to Philosophy of Religion. (3 h)**

A study of some central issues in the philosophy of religion, such as arguments for and against the existence of God; faith and reason; the divine attributes; the nature and existence of the soul; the possibility of immortality; and religious diversity. (D)

**PHI 116. Meaning and Happiness. (3 h)**

Beginning with Plato (c. 400 BCE) and ending with Foucault (died 1984) the course will look at the views of Western philosophers who have discussed how to live a happy, meaningful life, with particular attention paid to 'post-death-of-God' philosophers. (e.g., Schopenhauer, Nietzsche, Marx, Sartre, Camus, Heidegger). (D)

**PHI 160. Introduction to Political Philosophy. (3 h)**

Examines basic concepts and problems in political thought, including social and economic issues, individual rights, equality, justice, and the common good. (D)

**PHI 161. Introduction to Bioethics. (3 h)**

A study of ethical issues that arise in health care and the life sciences such as informed consent, experimentation on human subjects, truth-telling, confidentiality, abortion, and the allocation of scarce medical resources. (D)

**PHI 163. Environmental Ethics. (3 h)**

An examination of ethical issues concerning the environment as they arise in individual lives and public policy. (D)

**PHI 164. Contemporary Moral Problems. (3 h)**

A study of pressing ethical issues in contemporary life, such as abortion, euthanasia, animal rights, affirmative action, marriage, cloning, pornography, and capital punishment. (D)

**PHI 165. Introduction to Philosophy of Law. (3 h)**

An examination of prominent legal cases and their underlying principles, with an emphasis on philosophical analysis and moral evaluation. Topics include the rule of law, constitutional interpretation, judicial review, legal enforcement of morality, punishment, and freedom of speech and of religion. (D)

**PHI 220. Logic. (3 h)**

Elementary study of the laws of valid inference, recognition of fallacies, and logical analysis. (D)

**PHI 221. Symbolic Logic. (3 h)**

Introduces propositional and predicate logic, including identity and functions. Construction of proofs. Use of models to demonstrate consistency and invalidity. Application of these techniques to the assessment of arguments expressed in ordinary language.

**PHI 232. Ancient Greek Philosophy. (3 h)**

A study of the central figures in early Greek philosophy, beginning with the Presocratics, focusing primarily on Plato and Aristotle, and concluding with a brief survey of some Hellenistic philosophers. P - One PHI course or POI.

**PHI 235. Main Streams of Chinese Philosophy. (3 h)**

Survey of the main streams of Chinese philosophical thought from their ancient beginnings to their development and influence on one another in later eras.

**PHI 237. Medieval Philosophy. (3 h)**

A survey of some major philosophers from Augustine to Suarez, including Anselm, Averroes, Maimonides, Avicenna, Aquinas, Scotus and Ockham. P-One PHI course or POI.

**PHI 241. Modern Philosophy. (3 h)**

A study of the works of influential 17th and 18th century European philosophers such as Descartes, Locke, Leibniz, Berkeley, and Hume, with a concentration on theories of knowledge and metaphysics. P-One PHI course or POI.

**PHI 280. Topics in Philosophy. (1-3 h)**

Seminar and/or lecture course in selected topics. May be repeated if course title differs. P—One PHI course or POI.

**PHI 331. Plato. (3 h)**

Detailed analysis of selected dialogues, covering Plato's most important contributions to moral and political philosophy, theory of knowledge, metaphysics, and theology. P-One PHI course or POI.

**PHI 332. Aristotle. (3 h)**

Study of the major texts, with emphasis on metaphysics, ethics, and theory of knowledge. P-One PHI course (232 or 331 strongly recommended) or POI.

**PHI 333. Hellenistic Philosophy. (3 h)**

Study of the Ancient Greek and Roman philosophical schools of the Hellenistic Period, focusing on the Stoics, Skeptics, and Epicureans. P-One PHI course or POI.

**PHI 337. Thomas Aquinas. (3 h)**

Study of some major texts, with a focus on metaphysics and philosophical theology. P—One PHI course (232 strongly recommended) or POI.

**PHI 341. Kant: Theoretical Philosophy. (3 h)**

A study of Kant's principal contributions to metaphysics and the theory of knowledge. P-One PHI course (241 strongly recommended) or POI.

**PHI 342. Topics in Modern Philosophy. (3 h)**

Treatment of selected figures and/or themes in 17th and 18th century European philosophy. P-One PHI course (241 strongly recommended) or POI.

**PHI 343. Kant: Practical Philosophy. (3 h)**

Study of Kant's principal contributions to theory of action, theory of value, and moral and political philosophy. PHI 341 is not a prerequisite for this course. P-One PHI course or POI.

**PHI 352. 19th-Century European Philosophy: Hegel, Kierkegaard, Nietzsche. (3 h)**

Is there a way to think about the natural world that also makes sense of human life and history? Is anything gained, or lost, by thinking holistically about the world as a whole? Is a life dedicated to thinking about the world (and living accordingly) a way of avoiding authentic human life? What does it mean to live authentically? Does nihilism provide the answer or is it a form of avoidance? P - One PHI course or POI.

**PHI 353. Heidegger. (3 h)**

Heidegger early and late. Early Heidegger: the contrast between conformism and authenticity achieved through 'being-towards-death'; meaning through communal tradition. Late Heidegger: critique of modernity's reduction of everything to 'resource'; the ethics of 'dwelling' as our proper way of being in the world. P—One PHI course or POI.

**PHI 354. Wittgenstein. (3 h)**

A study of the work of Ludwig Wittgenstein on such topics as the picture theory of meaning, truth, skepticism, private languages, thinking, feeling, the mystical, and the ethical. P-One PHI course (221 strongly recommended) or POI.

**PHI 355. Contemporary Philosophy. (3 h)**

Study of the principal works of several representative 20th century philosophers. P-One PHI course (221 strongly recommended) or POI.

**PHI 356. Twentieth-Century European Philosophy. (3 h)**

Representative Issues: the 'disenchantment' and 'rationalization' of modernity, the character of modern technology, the possibility of mutual understanding in a multicultural world, the nature of 'dwelling'. Representative figures: Weber, Husserl, Korkheimer, Adorno, Marcuse, Heidegger, Gadamer, Arendt, Habermas. P-One PHI course or POI.

**PHI 360. Ethics. (3 h)**

Systematic examination of central ethical theories in the Western philosophical tradition. Such theories include Kantian deontology, utilitarianism, Aristotelian virtue ethics, and divine command theory. P-One PHI course or POI.

**PHI 361. Topics in Ethics. (3 h)**

One PHI course or POI.

**PHI 362. Social and Political Philosophy. (3 h)**

A systematic examination of the work of selected contemporary and traditional philosophers on topics such as the state, the family, distributive justice, property, liberty, and the common good. P-One PHI course or POI.

**PHI 363. Philosophy of Law. (3 h)**

Inquiry into the nature of law and its relation to morality. Classroom discussions of readings from the works of classical and modern authors focus on issues of contemporary concern involving questions of legal principle, personal liberty, human rights, responsibility, justice, and punishment. P-One PHI course or POI.

**PHI 364. Freedom, Action, and Responsibility. (3 h)**

Study of the nature of human freedom and related matters in the philosophy of action, metaphysics, and moral philosophy. P-One PHI course or POI.

**PHI 365. Philosophy of Love and Friendship. (3 h)**

Study of the historical and contemporary philosophical investigations of love and friendship. P - One PHI course or POI.

**PHI 366. Global Justice. (3 h)**

Does justice transcend national boundaries? Topics include citizenship, national sovereignty, war, human rights, humanitarian concerns, distribution of resources and burdens, and international law. P-One PHI course or POI.

**PHI 367. Philosophical Theories in Bioethics. (3 h)**

A study of the main philosophical approaches to contemporary bioethics. Each approach is examined critically and students explore how each approach informs analysis of contemporary issues in bioethics. P-One PHI course or POI.

**PHI 368. Concepts of Health & Disease. (3 h)**

Concepts of health, disease, and disability shape discussions in bioethics and health policy. This course examines and critically evaluates competing conceptions of health and disease. The implications of adopting different understandings of health and disease for bioethics and health policy are explored. P-One PHI course or POI.

**PHI 369. Philosophy and Psychology. (3 h)**

Examines philosophical issues relating to moral, social, behavioral, and/or cognitive psychology. Topics may include the existence and nature of moral character; bias, self deception, and denial; reasoning, intuition, and deliberation; and perception and consciousness. P - One PHI course or POI.

**PHI 370. Philosophy and Christianity. (3 h)**

Examination of the philosophical foundations of Christian thought and belief. Christian concepts of God and life everlasting, trinity, incarnation, atonement, prayer, sin, evil and obligation. P-One PHI course or POI.

**PHI 371. Aesthetics and the Philosophy of Art. (3 h)**

Covers such questions as: What is beauty? What is taste? What is art? Must art be beautiful? Can immoral art be good art? Readings may cover historical figures such as Plato or Kant, or may focus on contemporary writers. P-One PHI course or POI.

**PHI 372. Philosophy of Religion. (3 h)**

What is religion? Are the gods dead? Is God dead? Is religious belief a symptom of an underlying human weakness or biological process, or could it be a response to the sacred? Must believers rely on something less than knowledge? Are philosophical proofs the way to knowledge of God? What sort of problem is the "problem of evil" and what is its significance? How are religious beliefs like and unlike metaphysical, moral, and modern scientific beliefs? P - One PHI course or POI.

**PHI 373. Philosophy of Science. (3 h)**

Systematic and critical examination of major views concerning the methods of scientific inquiry, and the bases, goals, and implications of the scientific conclusions which result from such inquiry. P-One PHI course or POI.

**PHI 374. Philosophy of Mind. (3 h)**

Selection from the following topics: the mind-body problem; personal identity; the unity of consciousness; minds and machines; the nature of experience; action, intention, and the will. P-One PHI course or POI.

**PHI 375. Philosophy of Language. (3 h)**

Study of such philosophical issues about language as truth and meaning, reference and description, proper names, indexicals, modality, tense, the semantical paradoxes, and the differences between languages and other sorts of sign-systems. Also listed as LIN 375. P-One PHI course (221 strongly recommended) or POI.

**PHI 376. Epistemology. (3 h)**

The sources, scope and structure of human knowledge. Topics include: skepticism; perception, memory, and reason; the definition of knowledge; the nature of justification; theories of truth. P-One PHI course or POI.

**PHI 377. Metaphysics. (3 h)**

A survey of such issues as the nature and existence of properties, possibility and necessity, time and persistence, causation, freedom and determinism, and dualism versus materialism about the human person. P-One PHI course or POI.

**PHI 378. Philosophy of Space and Time. (3 h)**

Philosophical thought about space and time, from the Presocratics to the present. Topics may include the reality of the passage of time, paradoxes of change and motion, puzzles and the awareness of time, spacetime and relativity, and the possibility of time-travel. P-One PHI course or POI.

**PHI 379. Feminist Philosophy. (3 h)**

Examination of feminist approaches to philosophical theorizing. Topics may include feminist critiques of the scope and methods of mainstream philosophy, feminist approaches to ethics, epistemology and philosophy of language, and feminist conceptions of the self, sexuality, and moral agency. Also listed as WGS 240. P-one PHI course or POI.

**PHI 385. Seminar. (3 h)**

Offered by members of the faculty on specialized topics of their choice. With permission, may be repeated for credit. P-POI.

**PHI 391. Honors I. (1.5 h)**

Directed study and research in preparation for writing an honors thesis. P-Admission to the honors program in philosophy.

**PHI 392. Honors II. (1.5 h)**

Completion of the honors thesis begun in PHI 391. Graduation with honors in philosophy requires successful defense of the honors thesis in an oral examination conducted by at least two members of the department. P-PHI 391.

**PHI 395. Independent Study. (1-3 h)**

## Physics (PHY)

**PHY 105. Descriptive Astronomy. (4 h)**

Introductory study of the universe, from the solar system to the galaxies. No lab.

**PHY 109. Astronomy. (4 h)**

An introductory study of the universe consisting of descriptive astronomy, the historical development of astronomical theories, and astrophysics. Knowledge of basic algebra and trigonometry is required. Lab-2 hours. (D)

**PHY 109L. Astronomy Lab. (0-1 h)****PHY 110. Introductory Physics. (4 h)**

A conceptual, non-calculus one-semester survey of the essentials of physics, including mechanics, wave motion, heat, sound, electricity, magnetism, optics, and modern physics. Not recommended for premedical, mathematics, or science students. A student who has credit for PHY 111, 113, 114, 123 or 124 or who is currently taking PHY 113, 114, 123 or 124 is not allowed to register for PHY 110. Lab-2 hours. (D, QR)

**PHY 110L. Introductory Physics Lab. (0 h)****PHY 111. Mechanics Waves and Heat. (4 h)**

Introduction to mechanics, wave motion, thermodynamics, and sound. Extensive use of algebra and trigonometry. Credit allowed for either PHY 111, 113 or 123 but not for more than one. Lab-2 hours. Available for transfer, AP, IB, or A-levels credit only; not approved for summer school elsewhere. (QR)

**PHY 113. General Physics I. (4 h)**

Essentials of mechanics, wave motion, heat, and sound treated with some use of calculus. Recommended for science, mathematics, and premedical students. Credit allowed for either PHY 111, 113 or 123 but not for more than one. Lab-2 hours. C-MST 111 or 112 or equivalent. (D, QR)

**PHY 113L. General Physics Lab. (0 h)****PHY 114. General Physics II. (4 h)**

Essentials of electricity, magnetism, optics, and modern physics treated with some use of calculus. Recommended for science, mathematics, and premedical students. Credit allowed for either PHY 114 or 124, but not both. Lab-2 hours. P-MST 111 or 112 or equivalent and PHY 111, 113, or 123. (D, QR)

**PHY 114L. General Physics II Lab. (0 h)****PHY 115. The Physics of Music. (4 h)**

Introduction to the physics of music, using algebra and trigonometry. Basic physical concepts associated with motion, force and energy are applied to ideal vibrating systems, resonant systems, strings, and sound waves. Uses of these concepts are explored in relation to musical instruments the human voice, signal processing and room acoustics (D, QR).

**PHY 120. Physics and Chemistry of Environment. (4 h)**

Covers the basic physical and chemical processes in the earth's atmosphere, biosphere and the oceans. Also listed as PHY 120. (D, QR)

**PHY 120L. Physics and Chemistry of the Environment Lab. (0 h)**

C-PHY 120.

**PHY 123. General Physics I - Studio Format. (4 h)**

In-depth introduction to mechanics, wave motion, heat, and sound treated with use of calculus and employing advanced techniques and interactive learning. Recommended for potential physics majors. Credit allowed for either PHY 111 or 113 or 123, but not more than one. Lab - 2 hours. C-MST 111 or 112 or equivalent. (D, QR)

**PHY 123L. General Physics I - Studio Format Lab. (0 h)****PHY 124. General Physics II - Studio Format. (4 h)**

In-depth introduction to electricity, magnetism, optics, and modern physics treated with use of calculus and employing advanced techniques and interactive learning. Recommended for potential physics majors. Credit allowed for either PHY 114 or 124, but not both. Lab - 2 hours. P-MST 111 or 112 or equivalent and PHY 111 or 113 or 123. (D, QR)

**PHY 124L. General Physics II - Studio Format Lab. (0 h)****PHY 215. Elementary Modern Physics. (3 h)**

Development of 20th-century physics and an introduction to quantum ideas. The physics department recommends that PHY 215 be taken concurrently with PHY 265. P-PHY 114 or 124 and MST 111 or MST 112. (D, QR)

**PHY 230. Electronics. (3 h)**

Introduction to the theory and application of transistors and electronic circuits. Lab-three hours. P - PHY 114 or 124. (D, QR)

**PHY 262. Mechanics. (3 h)**

Study of the equations of motion describing several kinds of physical systems: velocity-dependent forces; damped and forced simple harmonic motion; orbital motion; inertial and non-inertial reference frames. Includes extensive use of computers. P-PHY 113 or 123, and MST 205 or MST 251, and C-MST 113. (D, QR)

**PHY 265. Intermediate Laboratory I. (1 h)**

Experiments on modern physics. P or C-PHY 215.

**PHY 266. Intermediate Laboratory II. (1 h)**

Experiments on mechanics, electronics, and computer simulations. P or C-PHY 262.

**PHY 301. Physics Seminar. (0.5 h)**

Discussion of contemporary research, usually with visiting scientists. Attendance required of junior and senior physics majors. Does not count toward the six hours of electives required for the BA major. Pass/Fail only.

**PHY 303. Physics Internship. (0 h)**

Independent study in Physics under faculty mentorship. P-POI.



**PHY 307. Biophysics. (3 h)**

Introduction to the structure, dynamic behavior, and function of DNA and proteins, and a survey of membrane biophysics. The physical principles of structure determination by X-ray, NMR, and optical methods are emphasized. Also listed as BIO 307. P-BIO 114 or 214, PHY 113 or 123, PHY 114 or 124, or POI. BIO 150, 150L, 160, and 160L may be substituted for BIO 114 and 214.

**PHY 310. Extragalactic Astronomy and Cosmology. (3 h)**

Topics covered include galactic structure, models for galaxies and galaxy formation, the large scale structure of the universe, the big bang model of the universe, physical processes such as nucleosynthesis in the early universe, and observational cosmology. P-PHY 262 and MST 205 or 251. (D)

**PHY 320. Physics of Biological Macromolecules. (3 h)**

The physics of large biologically important molecules, especially proteins and nucleic acids. Topics covered include the physical basis of biomolecular structure, the energetics and statistical mechanics of biomolecular dynamics, and the electrostatics and solvation of biomolecules. Designed for students with biochemistry, chemistry, or physics backgrounds. P-PHY 113 or 123, 114 or 124. (D)

**PHY 325. Biophysical Methods Laboratory. (1.5 h)**

Experiments using various biophysical techniques such as electron paramagnetic resonance, atomic force microscopy, stopped-flow absorption spectroscopy, X-ray diffraction, and gel electrophoresis. C-PHY 307.

**PHY 335. Computational Physics. (3 h)**

An introduction to finding numerical solutions to scientific problems. Topics include understanding computational errors, differentiation, integration, interpolation, root finding, random numbers, linear systems, Fourier methods, and the solution of ODEs and PDEs. There is no computer programming prerequisite. Credit will not be given for both PHY 335 and CSC 355/MST 355. P-MST 113 and 205 (or instead of MST 205, P-MST 121 and 251), or POI.

**PHY 337. Analytical Mechanics. (1.5 h)**

The Lagrangian and Hamiltonian formulations of mechanics with applications. Taught in the first half of the fall semester. P-PHY 262, MST 113 and 205 (or instead of MST 205, P-MST 121 and 251).

**PHY 339. Electricity and Magnetism. (1.5 h)**

Electrostatics, magnetostatics, dielectric and magnetic materials, Maxwell's equations and applications to radiation, relativistic formulation. PHY 339 is taught in the second half of the fall semester, following PHY 337. These should be taken in sequence. P-PHY 114 or 124, MST 113 and MST 205 or 251. (D)

**PHY 340. Electricity and Magnetism. (3 h)**

Electrostatics, magnetostatics, dielectric and magnetic materials, Maxwell's equations and applications to radiation, relativistic formulation. PHY 340 is taught in the spring semester after PHY 339. These should be taken in sequence. P-PHY 339. (D)

**PHY 341. Thermodynamics and Statistical Mechanics. (3 h)**

Introduction to classical and statistical thermodynamics and distribution functions. Also listed as CHM 341. Also offered in Salamanca. P-PHY 215 and MST 113. (D)

**PHY 343. Quantum Physics. (3 h)**

Basic quantum theory and applications including the time-independent Schrodinger equation, formalism and Dirac notation, the hydrogen atom, spin, identical particles, and approximation methods. P-PHY 215, MST 113 and 205 (or instead of MST 205, P-MST 121 and 251). (D)

**PHY 344. Quantum Physics. (3 h)**

Basic quantum theory and applications including the time-independent Schrodinger equation, formalism and Dirac notation, the hydrogen atom, spin, identical particles, and approximation methods. P-PHY 343. (D)

**PHY 347. Intellectual Property in Science and Engineering. (1 h)**

Introduction to the process of creating and protecting intellectual property, with discussion of economic impact of IP rulings and concept of a non-disclosure agreement. Working with representative examples from physics, engineering, and biotechnology, the students, working in small teams, will analyze and create invention disclosures, patent applications, and issued patents. Recommended background: three courses from the major tracks in physics, chemistry, biology, or computer science.

**PHY 352. Physical Optics and Optical Design. (4 h)**

Interaction of light with materials; diffraction and coherent optics; ray trace methods of optical design. Lab-3 hours. P-PHY 114 or 214 and PHY 215. (D)

**PHY 352L. Physical Optics Lab. (0 h)****PHY 354. Introduction to Solid State Physics. (3 h)**

A survey of the structure, composition, physical properties, and technological applications of condensed matter. P-PHY 343. (D)

**PHY 355. Exotic Materials. (1.5 h)**

Study of materials that express exotic properties that are derived from some aspect of the system's dimensionality, introduces the thermal, electrical, optical and magnetic properties of exotic materials systems. Discusses simple models for the structure-property relationships for a wide range of of nanoscale and low-dimensional systems. C - PHY 343.

**PHY 356. Electron-Imaging Sciences. (1.5 h)**

Introduces the theory and application of the electron imaging systems: transmission electron microscopy (TEM) and scanning electron microscopy (SEM). Focuses on basic materials science though some biological materials will be covered. Taught as a series of lectures followed by laboratories. P - PHY 215.

**PHY 357. Scanning Probes. (1.5 h)**

Examines the theory and application of scanning tunneling microscopy and atomic force microscopy (STM/AFM). Introduces how each type of imaging works, how to model spectroscopic data, and how to use each microscope. Students will image using the STM and AFM as well as take and reduce spectroscopy data using models built in Maple or Mathematica. P - PHY 215.

**PHY 358. Kinetics of Materials. (1.5 h)**

Study of driving forces for atomic and ionic motion within solids leading to a range of materials properties from work hardening to phase transformations and formation. Atomic-level models for diffusion will be introduced as well as techniques and examples of the solution to the diffusion equation. Complements the traditional thermodynamics course. C - PHY 341 and 354 or POI.

**PHY 361. Biophysics Seminar. (1 h)**

Seminal and current publications in biophysics will be studied. Each week a member of the class will make an oral presentation on a chosen publication and will lead the ensuing discussion. Pass-fail only.

**PHY 363. Condensed Matter Seminar. (1 h)**

Seminal and current publications in condensed matter physics are studied. Each week a member of the class makes an oral presentation on a chosen publication and leads the ensuing discussion. Pass-fail only.

**PHY 381. Research. (1.5-3 h)**

Library, conference, computation, and laboratory work performed on an individual basis. May be repeated for credit.



**PHY 385. Bioinformatics. (3 h)**

Introduction to computational approaches essential to modern biological inquiry. Approaches may include large biological dataset analyses, sequence similarity and motif searches, and analysis of high-throughput genomic technologies. Emphasizes interdisciplinary interaction and communication. Also listed as CSC 385 and BIO 385. P-CSC 201 or 221 (and BIO 150, 150L, 160, and 160L if taken as BIO 385) or POL.

**PHY 391. Special Topics in Physics. (1-4 h)**

Courses in selected topics in physics. May be repeated if course content differs.

**PHY 392. Special Topics in Physics. (1-4 h)**

Courses in selected topics in physics. May be repeated if course content differs.

## Politics&International Affairs (POL)

**POL 113. American Government and Politics. (3 h)**

The nature of politics, political principles, and political institutions, with emphasis on their application to the United States. (D)

**POL 114. Comparative Government and Politics. (3 h)**

An analysis of political institutions, processes, and policy issues in selected countries. Case studies will be drawn from Africa, Asia, Europe, and Latin America. (CD, D)

**POL 115. Political Theory. (3 h)**

Introduces the major concepts, questions, and ideas from across the history of political thought, to examine the nature of politics and the moral and ethical aspects of political life. (D)

**POL 116. International Politics. (3 h)**

Surveys the forces which shape relations among states and some of the major problems of contemporary international politics. (CD, D)

**POL 202. Political Structures of Present-day Spain. (3 h)**

A study of the various political elements which affect the modern Spanish state. Counts as an elective for the Spanish major.

**POL 209. US Environmental Policy and Politics. (3 h)**

Explores the origins and current state of United States policies on the environment, the politics that have produced those policies, and how both continue to evolve. Attention to the policy formation process, the institutions and groups that influence American policy concerning the environment, and the major environmental laws and controversies surrounding them, with particular attention to the role and functioning of the US Environmental Protection Agency. While focusing on the American experience, recognizes the impacts of US policies on the rest of the world.

**POL 210. Topics In United States Politics and Policy. (3 h)**

An intensive study of one or more major problems in contemporary United States politics and policy. Course may be retaken for credit if topic varies.

**POL 211. Political Parties, Voters, and Elections. (3 h)**

An examination of party competition, party organizations, the electorate and electoral activities of parties, and the responsibilities of parties for governing.

**POL 212. U.S. Policymaking in the Twenty-first Century. (3 h)**

Examines the contemporary United States policymaking process. Special attention to ways issues become important and contributions of different political actors, institutions, and ideologies in the passage or rejection of policy proposals. Considers a range of social, economic, and regulatory policies.

**POL 213. Economic Inequality and American Politics. (3 h)**

Examines patterns of economic inequality in the United States, weighs competing causal explanations for changing distributions of income and wealth, and investigates the effects of this inequality on American democracy.

**POL 214. Latino/a Political Behavior. (3 h)**

Examines the contemporary role of Latinos as a minority group in the U.S. with emphasis on U.S. immigration policies. Latina/o political participation and identity, and interracial coalition formations. Service-learning course. (CD)

**POL 215. Citizen and Community. (3 h)**

An examination of the role and responsibilities of citizens in democratic policymaking. Includes discussion of democratic theory, emphasis on a policy issue of national importance (i.e. poverty, crime, environment), and involvement of students in projects that examine the dimension of the issue in their community. Service Learning.

**POL 216. U.S. Social Welfare Policy. (3 h)**

An analysis of U.S. social policymaking and policy outcomes on issues such as welfare, education, health care, and Social Security, with an emphasis on historical development and cross-national comparison.

**POL 217. Politics and the Mass Media. (3 h)**

Exploration of the relationship between the political system and the mass media. Two broad concerns will be the regulation of the mass media and the impact of media on political processes and events.

**POL 218. Congress and Policymaking. (3 h)**

An examination of the composition, authority structures, external influences, and procedures of Congress with emphasis on their implications for policymaking in the United States.

**POL 219. Political Participation. (3 h)**

Examines political participation in the United States, with emphasis on electoral and non-electoral avenues through which individuals and groups wield influence in politics and government, including voting, interest groups, and social movements. Service-learning course.

**POL 220. The American Presidency. (3 h)**

Explores the interaction of the presidential office and the individual contemporary presidents in an evolving political context.

**POL 221. State Politics. (3 h)**

An examination of institutions, processes, and policies at the state level, with emphasis on the different patterns of governance in the various states and the consequences of the recent revitalization of state governments.

**POL 222. Urban Politics. (3 h)**

Examines the political structures and processes in American cities and suburbs as they relate to the social, economic, and political problems of the metropolis. Service-learning Course. (CD)

**POL 223. African American Politics. (3 h)**

A survey of selected topics, including African American political participation, political organizations, political leadership, and political issues. It will also show the relationship of these phenomena to American political institutions and processes as a whole.

**POL 224. Racial and Ethnic Politics. (3 h)**

Analysis of the impact and interactions of African Americans, Latinos, Asian Americans, American Indians, and Whites in U.S. politics, with special emphasis on the racial identity development, minority representation, and the U.S. criminal justice system. Service-learning course. (CD)

**POL 225. American Constitutional Law: Separation of Powers and the Federal System. (3 h)**

Analysis of Supreme Court decisions affecting the three branches of the national government and federal/state relations.

**POL 226. American Constitutional Law: Civil Rights and Liberties. (3 h)**

Analysis of Supreme Court decisions involving the Bill of Rights and the Fourteenth Amendment of the U.S. Constitution.

**POL 227. Politics, Law, and Courts. (3 h)**

Analysis of the intersection of law and democratic politics through consideration of judicial selection, judicial decision making, and the roles of various legal actors, including judges, lawyers, and juries.

**POL 228. Politics of Public Education. (3 h)**

Introduces students to some of the most popular and contentious contemporary education policy debates and discusses what the U.S. school system tells us about the country's fundamental political commitments.

**POL 229. Women, Gender, and Politics. (3 h)**

Examines classical and contemporary studies of how gender structures politics, including the political participation of women and other gendered social groups, as well as current policy issues.

**POL 230. Political and Economic Development of Western Europe. (3 h)**

Analyzes the historical antecedents of Western European regime outcomes in the interwar period in order to explain the survival or collapse of democracy in the 1920s and 1930s in Great Britain, France, Germany, and Italy. Explores contrasting responses to economic, social, and political challenges since the middle ages, including the commercialization of agriculture, national unification, revolution, and the timing and strength of industrialization.

**POL 231. Western European Politics. (3 h)**

Comparative analysis of political institutions, processes, and policy issues in selected West European countries. Special attention will be given to case studies involving Great Britain, France, Germany, Italy and to the process of European integration.

**POL 232. Politics in Russia and Eastern Europe. (3 h)**

Analysis of the political, economic, and social patterns of the region, emphasizing the dynamics and divergent outcomes of the regime transitions after the fall of communism in Central and Eastern Europe and the former Soviet Union.

**POL 233. The Politics of Modern Germany. (3 h)**

Study of the historical legacy, political behavior, and governmental institutions of contemporary Germany.

**POL 234. United Kingdom Politics in a Global Age. (3 h)**

Introduces the nature and content of contemporary United Kingdom politics by placing those politics in a wider analysis of United Kingdom history, society, and international positions. (CD)

**POL 235. European Integration. (3 h)**

Combines different approaches to the study of Europe by examining European integration-as highlighted by the development of the European Union-through the lenses of history, politics, culture, and economics.

**POL 236. Government and Politics in Latin America. (3 h)**

Comparative analysis of the institutions and processes of politics in the Latin American region. (CD)

**POL 237. The Comparative Politics of Welfare States. (3 h)**

Examines the historical development and cross-national variation of welfare states in advanced industrial societies, including the United States and Western European democracies. Assesses characteristic policy challenges and responses across a number of shared domains, including pensions, health care, anti-poverty programs, family benefits, and labor-market policy.

**POL 238. Comparative Economic and Political Development. (3 h)**

Overview of the relationship among economic development, socio-structural change, and politics since the creation of the international capitalist system in the sixteenth century. Explores classic debates and paradigms in political economy and applies them to particular policy and institutional domains, including macroeconomic policy, finance, globalization, the challenges of late development, and the welfare state.

**POL 239. State, Economy, and International Competitiveness. (3 h)**

Introduces a range of important case studies of national economic performance to illustrate the role of public policy in economic performance in a number of leading industrial economies (the U.S., United Kingdom, Germany, Sweden, China, and Japan).

**POL 240. Politics of Human Rights. (3 h)**

Looks at the policy of dilemmas that both restored and new democracies face when dealing with past human rights violations and how they engage in structuring the domain of human rights in a changed global environment. (CD)

**POL 241. Contemporary India. (3 h)**

Examines the opportunities and constraints facing modern India across a range of issues including politics, international relations, economics, religion, caste and the environment.

**POL 242. Topics in Comparative Politics. (3 h)**

An intensive study of one or more major problems in contemporary comparative politics. Course may be retaken for credit if topic varies.

**POL 243. Corruption. (3 h)**

This course addresses the politics of appropriation of public resources for private gain, with a focus on why corruption levels vary across countries, why people choose to participate in corruption, and the effects of corruption on politics and the economy.

**POL 244. Politics and Literature. (3 h)**

Examines how literature can extend knowledge of politics and political systems. Considers the insights of selected novelists. Thematic and regional focus of the course will vary with instructor.

**POL 245. Ethnonationalism. (3 h)**

This course is concerned with the role of ethnicity in world politics. It focuses on both theoretical and substantive issues relating to: (a) the nature of ethnicity and ethnic group identity; (b) the sources of ethnic conflict; (c) the politics of ethnic conflict; (d) the policy management of ethnic conflict; and (e) international intervention in ethnic conflict.

**POL 246. Politics and Policies in South Asia. (3 h)**

A survey of major issues relevant to politics and policy in India, Pakistan, Bangladesh, and Sri Lanka. (CD)

**POL 247. Islam and Politics. (3 h)**

Explores the interrelationship of Islam and politics in the contemporary world/ Deals with Islam as a political ideology which shapes the structure of political institutions and behavior. Looks at Islam in practice by examining the interaction between Islam and the political systems of Iran, Pakistan, Saudi Arabia and others. (CD)

**POL 248. Chinese Politics. (3 h)**

A survey of the political institutions and processes in China (People's Republic of China and Republic of China). Emphasis on group conflict, elites, ideology, as well as current policy changes in the process of modernization.

**POL 250. Afghanistan, Pakistan, Iraq and U.S. Policy since 2001. (3 h)**

Broadly addresses the phenomena of U.S. involvement in two ongoing conflicts-the Afghanistan war and the Iraq war. Focuses on the respective domestic and international politics and policies of the four main actors relevant to the conflicts: U.S., Afghanistan, Pakistan, and Iraq.

**POL 251. Politics of Forced Migration. (3 h)**

Addresses major questions about forced migration in international politics, such as: What causes people to flee their homes? What are the effects of forced displacement on the host communities? How should considerations of human rights and international law affect our understanding of forced migration?.

**POL 252. Topics in International Politics. (3 h)**

An intensive study of one or more major problems of contemporary international politics. Course may be retaken for credit if topic varies.

**POL 253. International Political Economy. (3 h)**

Analyzes major issues in the global political economy including theoretical approaches to understanding the tension between politics and economics, monetary and trade policy, North-South relations, environmentalism, human rights and democratization.

**POL 254. U.S. Foreign Policy. (3 h)**

Analyzes the historical and theoretical perspectives shaping U.S. engagement with the world past and present. Applies this understanding to current problems in U.S. foreign policy.

**POL 255. Terrorism and Asymmetric Conflict. (3 h)**

A historical survey and analysis of terrorism and other forms of political violence, such as insurgency and guerrilla warfare involving state and non-state actors. Focuses on a variety of cases along with and examination of the challenges of counter-terrorism and counter-insurgency in the contemporary global system.

**POL 256. International Security. (3 h)**

Explores various theoretical approaches to security studies and contemporary security issues, with special attention to domestic variables, the use of force, strategic culture, weapons of mass destruction, the political economy of national security, and terrorism.

**POL 257. Politics of International Development. (3 h)**

Examines why some nations develop at a quite fast pace while others - even when rich in natural resources - don't. Explores the impact of colonial history, state-formation, civil conflicts, governance issues, and rising powers on economic growth and development.

**POL 258. International Relations of South Asia. (3 h)**

Examines the foreign policy decision making in India, Pakistan, Bangladesh and Sri Lanka vis-a-vis each other and major powers such as the U.S., Russia, and China.

**POL 259. Palestine and the Arab-Israeli Conflict. (3 h)**

Explores the nature and scope of the conflict with particular emphasis on the time period post-1967 and the respective policies of the three most significant actors in the conflict: the U.S., Israel and Palestine.

**POL 260. United States and East Asia. (3 h)**

An analytical survey of United States interaction with East Asia, with special emphasis on the strategic security and the political economy of the region. (CD)

**POL 261. International Law. (3 h)**

Analyzes major issues in public international law including sources of international law, state sovereignty, territorial jurisdiction, treaties, peaceful settlement of disputes, human rights, and the relationship between international law and domestic law.

**POL 262. International Organizations. (3 h)**

A survey of the philosophy, principles, organizational structure, and decision-making procedures of international organizations. In addition to the United Nations system, this course will analyze various international organizations in issues such as collective security, trade, economic development, human rights protection, and the environment.

**POL 263. U.S. Foreign Policy in the Middle East. (3 h)**

A critical analysis of U.S. foreign policy with respect to the Middle East since the Second World War. This course utilizes a case study method of instruction.

**POL 264. Moral Dilemmas in International Politics. (3 h)**

Examines moral dilemmas in international politics with reference to theories and cases. Topics include just war doctrine, responsibility of rich countries toward poor countries, exportability of capitalism and democracy, and legitimacy of humanitarian intervention.

**POL 266. Modern Civil Wars. (3 h)**

Examines and assesses competing theories of civil war, including economic, ethnic, religious, and ideological explanations. It also addresses dilemmas raised by civil war such as the spread of HIV/AIDS, the proliferation of private security companies, and the abuse of humanitarian aid.

**POL 267. Intelligence and International Politics. (3 h)**

Explores various facets of the world of intelligence and espionage in international politics, including intelligence collection and analysis, covert action, counterintelligence, the role of foreign intelligence agencies the relationship of the intelligence community to other political institutions, and important ethical issues and controversies in the field of intelligence today.

**POL 268. International Conflict Resolution. (3 h)**

Explores various approaches to conflict resolution through readings, case studies, and simulations. Issues include: negotiation and mediation, dealing with war criminals, tradeoffs between justice and peace, and the role of the international community.

**POL 269. Topics in Political Theory. (3 h)**

An intensive study of one or more major topics in political theory. Course may be retaken for credit if topic varies.

**POL 270. Ethics and Agency. (3 h)**

Explores the question of agency in relation to ethics with attention to practices of ethics that focus on judgment. Selected writings from Aristotle, Arendt, and Foucault.

**POL 271. Classical Political Thought. (3 h)**

Examination of the nature and goals of classical political theorizing, with attention to its origins in ancient Athens and its diffusion through Rome. Representative writers include Plato, Aristotle, and Cicero.

**POL 272. Democratic Theory. (3 h)**

Examination of the theoretical underpinnings of democracy and some of the critiques of those foundations. Focus will be on understanding some of the major theories of democracy and on how key democratic concepts are defined differently within these various traditions.

**POL 273. Marx, Marxism and Post-Marxism. (3 h)**

Examines Marx's early humanistic writings, his later philosophy, the vicissitudes of 20th-century Marxism and attempts to reorient Marx's theory in light of developments in contemporary political thought and practice.

**POL 274. Arab and Islamic Political Thought. (3 h)**

Examines the history, basic concepts, central questions and preoccupations of political thought in the Arab region, while critically analyzing what it means to engage political theory comparatively. (CD)

**POL 275. American Political Thought. (3 h)**

Examines texts from the founding to the present that consider debates over the Constitution and the power of government; liberal and republican theories of citizenship; race, class and gender inequality; tensions between diversity and national identity; theories of justice; and the development of progressive, conservative, and libertarian political ideologies in the United States.

**POL 276. Modern Political Thought. (3 h)**

Examines political thought from the 19th century to the present with a focus on the relationship between ethics and politics. Topics include the nature of the good life, freedom, and the political society that makes them possible.

**POL 277. Feminist Political Thought. (3 h)**

Introduction to feminist thought and its implications for the study and practice of political theory. Topics include feminist critiques of the Western political tradition and schools of feminist political theory. Also listed as WGS 301. (CD)

**POL 278. Politics and Identity. (3 h)**

Investigation of the ways in which concepts of identity have informed political norms, structures, and practices; the myriad forms identity takes (particularly gender, sexual orientation, class, race, religion, nationality and ethnicity) drawing on examples from across the globe; and theoretical approaches proposed for engaging differences. (CD)

**POL 280. Research Methods. (3 h)**

Overview of the qualitative and quantitative methods prominent in studying political science. Attention is given to the relationships between theory, method, and findings by focusing on the need to make systematic empirical observations. P-STA 111 must be taken before or concurrently with this course.

**POL 281. Environmental Political Thought. (3 h)**

Explores the human relationship to the natural world and the implications of this relationship to political issues, such as the preservation of wilderness, industrialization, consumerism, public and private ownership, and social justice.

**POL 282. Gandhi. (3 h)**

Explores the life, political philosophy, and the method of non-violent coercion (satyagraha) of Gandhi. Students define and implement group projects designed to promote change within the context of Gandhian methodology. Service-learning course.

**POL 286. Topics in Political Science. (1-3 h)**

Intensive study of one or more topics in the discipline. May not be used to meet one of the four area requirements. May be repeated for credit. Up to 6 hours may be counted toward the major.

**POL 287. Individual Study. (2, 3 h)**

Intensive research leading to the completion of an analytical paper conducted under the direction of a faculty member. Students initiate the project and secure the permission of an appropriate instructor. May be repeated for a maximum of six hours, only three of which may count toward the major. P-POI.

**POL 288. Directed Reading. (2, 3 h)**

Concentrated reading in an area of study not otherwise available. Students initiate the project and secure the permission of an appropriate instructor. P-POI.

**POL 289. Internship in Politics. (2, 3 h)**

Field work in a public or private setting with related readings and an analytical paper under the direction of a faculty member. Students initiate the project and secure the permission of an appropriate instructor. Normally one course in an appropriate subfield is taken prior to the internship. P-POI.

**POL 300. Senior Seminar in Political Science. (4 h)**

Readings and research on selected topics. P-POL 280 and STA 111.

## Portuguese (PTG)

**PTG 111. Elementary Portuguese. (3 h)**

Two-semester sequence designed to help students develop the ability to understand and speak Portuguese and also learn to read and write Portuguese at the elementary level. Labs required.

**PTG 112. Elementary Portuguese. (3 h)**

Two-semester sequence designed to help students develop the ability to understand and speak Portuguese and also learn to read and write Portuguese at the elementary level. Labs required.

**PTG 113. Intensive Elementary Portuguese. (4 h)**

Intensive introduction to Portuguese designed to help students develop the ability to understand and speak Portuguese and also learn to read and write Portuguese at the elementary level. P-POI.

**PTG 153. Intermediate Portuguese. (4 h)**

Intermediate-level course covering the structure of the language, developing students' reading, writing and conversation skills and preparing them for oral and written discussion of readings. Note that PTG 153 and 154 are mutually exclusive. Labs required. P-PTG 113 or POI.

**PTG 154. Accelerated Intermediate Portuguese. (3 h)**

Intensive intermediate-level course. Offers the opportunity to develop further reading, writing and conversation skills and prepare for oral and written discussion of readings. Labs required. P-PTG 113 or POI.

**PTG 212. Exploring the Lusophone World. (3 h)**

Exploration of significant cultural expressions from the Portuguese-speaking world. Emphasis on the development of competence in speaking, reading and writing Portuguese and on understanding how particular Lusophone societies have defined themselves. Offered only upon sufficient demand. P-PTG 153 or 154 or equivalent.

## Psychology (PSY)

**PSY 100. Learning to Learn. (3 h)**

A course designed for first and second year students who wish to improve their academic performance through the application of learning, study, memory, and time management strategies. By permission of the instructor only. Pass/Fail only.

**PSY 151. Introductory Psychology. (3 h)**

A systematic survey of psychology as the scientific study of behavior. Prerequisite to all courses of a higher number. (D)

**PSY 241. Developmental Psychology. (3 h)**

Surveys physical, emotional, cognitive, and social development in humans from conception to death. P-PSY 151. (D)



**PSY 243. Biopsychology. (3 h)**

An introduction to the biological substrates and processes that govern behavior. P- PSY 151. (D)

**PSY 245. Survey of Abnormal Behavior. (3 h)**

Study of problem behaviors such as depression, alcoholism, antisocial personality, the schizophrenias, and pathogenic personality patterns, with emphasis on causes, prevention, and the relationships of these disorders to normal lifestyles. P-PSY 151. (D)

**PSY 248. Cognitive Psychology. (3 h)**

Surveys theory and research on cognitive processes. Emphasizes memory, attention, visual and auditory information processing, concept identification/formation, and language. P- PSY 151. (D)

**PSY 255. Personality. (3 h)**

Survey of theory and research on the structure and function of human personality, with attention to the relationship to cognition, emotion, motivation, and behavior. P-PSY 151. (D)

**PSY 260. Social Psychology. (3 h)**

A survey of the field, including theories of social behavior, interpersonal attraction, attitudes and attitude change, and group behavior. P-PSY 151. (D)

**PSY 265. Human Sexuality. (3 h)**

Explores the psychological and physiological aspects of human sexuality, with attention to sexual mores, sexual deviances, sexual dysfunction, and sex-related roles. P-PSY 151. (D)

**PSY 268. Industrial/Organization Psychology. (3 h)**

Psychological principles and methods applied to problems commonly encountered in business and industry. P-PSY 151. (D)

**PSY 270. Topics in Psychology. (1.5 h)**

Focused in-depth review of current theory and research on a selected topic in the field. P-PSY 151.

**PSY 275. Internship in Psychology. (0-3 h)**

Field work in pre-approved settings under the supervision of qualified professionals. Related readings and a term paper required. Students must apply and secure permission from designated Psychology Department faculty member who will assign final grade. Students desiring to propose internship that has not been pre-approved must do so at least 1 month before the proposed start of the internship, following standard department procedures. Internships will not be approved for credit after the internship has already begun. Credits cannot count toward minimum required for major or minor. Pass/Fail only. Open only to declared psychology majors or minors with a minimum GPA of 2.75. Maximum 3 hours. P-PSY 310 or 311 and Permission of the Department (POD).

**PSY 278. Psychology of Memory. (3 h)**

A study of specialized knowledge regarding the most relevant aspects of memory function and important investigative techniques in this field. (D)

**PSY 280. Directed Study. (1-3 h)**

Student research performed under faculty supervision. P-PSY 151 and approval of faculty member prior to registration.

**PSY 310. Methods in Psychological Research. (3 h)**

Introduces statistics and research design for students minoring in psychology. P-PSY 151 (D, QR)

**PSY 311. Research Methods I. (4 h)**

Design and statistical analysis of correlational research. Lab-twice weekly. P-At least one course in addition to PSY 151. (QR, D)

**PSY 312. Research Methods II. (4 h)**

Design and statistical analysis of experimental methods. Lab-twice weekly. P-PSY 311. (QR)

**PSY 313. History and Systems of Psychology. (3 h)**

The development of psychological thought and research from ancient Greece to the present. Normally offered only fall semester. Senior major standing only. P-Two psychology courses beyond PSY 151 or POI. (D)

**PSY 314. Special Topics in Social Psychology. (3 h)**

Theoretical and empirical examination of specialized areas within social psychology. May be repeated for credit if topic varies. P-PSY 151. (D)

**PSY 315. Special Topics in Personality Psychology. (3 h)**

Theoretical and empirical examination of specialized areas within personality psychology. May be repeated for credit if topic varies. P-PSY 151. (D)

**PSY 316. Special Topics in Developmental Psychology. (3 h)**

Theoretical and empirical examination of specialized areas within developmental psychology. May be repeated for credit if topic varies. P-PSY 151. (D)

**PSY 317. Special Topics in Experimental Psychology. (3 h)**

Theoretical and empirical examination of specialized areas within experimental psychology. May be repeated for credit if topic varies. P-PSY 151. (D)

**PSY 320. Physiological Psychology. (3 h)**

Provides an in-depth examination of the nervous system and the physiological processes that underlie sensation, motor control, thinking, and emotion. P-PSY 310 or 311 or POI.

**PSY 322. Psychopharmacology. (3 h)**

A survey of the influences of a wide range of psychoactive drugs, both legal and illegal, on human physiology, cognition, and behavior. P-PSY 151. (D)

**PSY 323. Animal Behavior. (3 h)**

A survey of laboratory and field research on animal behavior. P-PSY 310 or 311 or POI.

**PSY 326. Learning Theory and Research. (3 h)**

Theory and current research in learning, with emphasis on applications of learning principles for behavior modification and comparisons across species. P-PSY 310 or 311. P or C-PSY 312.

**PSY 329. Perception. (3 h)**

Survey of theory and research findings on various sensory systems (vision, hearing, touch, taste). P-310 or 311.

**PSY 331. Research in Cognitive Psychology. (3 h)**

In-depth examination of research in a selected area of cognitive psychology such as memory, attention, or executive function. Research projects required. P-PSY 310 or 311. P or C-PSY 312.

**PSY 333. Motivation of Behavior. (3 h)**

Surveys basic motivational concepts and related evidence. P-PSY 310 or 311. P or C-PSY 312.

**PSY 338. Emotion. (3 h)**

Survey of theory methods and research in the area of emotion. Developmental, cultural, social-psychological, physiological, personality, and clinical perspectives on emotions are given. P-PSY 310 or 311.

**PSY 341. Research in Developmental Psychology. (3 h)**

Methodological issues and selected research in developmental psychology. Research projects required. P-PSY 310 or 311. P or C-PSY 312.



**PSY 344. Abnormal Psychology. (3 h)**

Descriptive analysis of the major types of abnormal behavior with attention to organic, psychological, and cultural causes and major modes of therapy. Offered in the summer. P-PSY 151. (D)

**PSY 346. Psychological Disorders of Childhood. (3 h)**

Survey of problems including conduct disorders, attention deficits disorders, depression, and autism. Emphasis on causes, prevention, treatment, and the relationships of disorders to normal child development and family life. P-PSY 245 or 344 or POI. (D)

**PSY 348. Clinical Neuroscience. (3 h)**

Surveys connections between abnormal neurological processes and clinical abnormalities. This implies already having an understanding of normal brain function and anatomy. P-PSY 243 or PSY 320 or PSY 322.

**PSY 351. Personality Research. (3 h)**

The application of a variety of research procedures to the study of human personality. Research projects required. P-PSY 310 or 311.

**PSY 355. Research in Social Psychology. (3 h)**

Methodological issues and selected research in the study of the human as a social animal. Research projects required. P-PSY 310 or 311.

**PSY 357. Cross-Cultural Psychology. (3 h)**

An examination of differences in psychological processes (e.g., attitudes, perception, mental health, organizational behavior) associated with cultural variation. P-PSY 151. (CD, D)

**PSY 359. Psychology of Gender. (3 h)**

An exploration of the psychological similarities and differences between human males and females, including consideration of social, cognitive, motivational, biological, and developmental determinants of behavior. P-PSY 151. (CD, D)

**PSY 362. Psychological Testing. (3 h)**

An overview of the nature of psychological assessment, emphasizing the construction and evaluation of psychological tests and the data analytic techniques underlying those processes. P-PSY 310 or 311.

**PSY 363. Survey of Clinical Psychology. (3 h)**

Overview of the field of clinical psychology. P-Psychology senior majors only or POI. (D)

**PSY 364. Stereotyping and Prejudice. (3 h)**

Theoretical and empirical examination of the processes underlying prejudice, discrimination and racism. P-PSY 151. (CD, D)

**PSY 367. Parent-Child Relationships. (3 h)**

Surveys characteristics of parent-child relationships and issues of parenting as related to a variety of factors, including developmental changes of parent and child, family structure, and sociocultural context. P-PSY 151. (D)

**PSY 374. Research in Judgment and Decision Making. (3 h)**

A theoretical and empirical examination of how people make decisions and judgments about their lives and the world, and how these processes can be improved. P-PSY 310 or 311.

**PSY 381. Honors Seminar. (3 h)**

Seminar on selected problems in psychology. Intended primarily for students in the departmental honors program. P-PSY 311 and POI.

**PSY 383. Honors Research. (3 h)**

Seminar in selected issues in research design, followed by independent empirical research under the supervision of a member of the departmental faculty. P-PSY 311 and POI.

**PSY 392. Contemporary Issues in Psychology. (1.5 h)**

Seminar treatment of current theory and research in several areas of psychology. Required for senior majors. P-PSY 312, and senior major standing.

## Religion (REL)

**REL 101. Introduction to Religion. (3 h)**

A study of meaning and value as expressed in religious thought, experience, and practice. Focus varies with instructor. (D)

**REL 102. Introduction to the Bible. (3 h)**

A study of the forms, settings, contents, and themes of the Old and New Testaments. Focus varies with instructor. (D)

**REL 103A. Introduction to Christian Traditions. (3 h)**

Study of Christian experience, thought, and practice. Focus varies with instructor. (D)

**REL 103B. Introduction to Latin American Christian Traditions. (3 h)**

Study of the origins, practices, experiences, and thought of Christian traditions in Latin America. Focus varies with instructor. (CD, D)

**REL 104A. Introduction to Asian Religions. (3 h)**

Study of the thought and practices within the major religious traditions of South, Southeast, and East Asia. Focus, region, and traditions may vary with instructor. (CD, D)

**REL 104B. Introduction to South Asian Religions. (3 h)**

Study of the thought and practices within the major religious traditions of South Asia (Indian subcontinent). Focus and traditions may vary with instructor (CD, D)

**REL 104C. Introduction to East Asian Religions. (3 h)**

Study of the thought and practices within the major religious traditions of East Asia (China, Korea, and Japan). Focus, regions, and traditions may vary with instructor. (CD, D)

**REL 105. Monotheisms: Judaism, Christianity, and Islam. (3 h)**

Examines the history, thought, and practices of these three monotheistic traditions in global perspective. Focus varies by instructor. (D)

**REL 106. The Bible in America. (3 h)**

Critical examination of the ways in which various individuals and groups have interpreted, appropriated and used the Bible in America. Focus varies with instructor. (D)

**REL 107. Introduction to African Religions. (3 h)**

A study of the basic features of African religious systems and institutions, with focus on the cultural, economic and political factors that have informed global preservations of an African worldview. (CD, D)

**REL 108. Introduction to Hindu Traditions. (3 h)**

An examination of historical, political, and cultural developments of various traditions placed under the heading "Hinduism" in South Asia and abroad, with focus on ritual, myths, literature, and imagery that reflect their diverse beliefs and practices. (CD, D)

**REL 109. Introduction to Buddhist Traditions. (3 h)**

A study of the thought, history, and practices of Buddhist traditions in Asia. (CD, D)

**REL 110. Introduction to Islamic Traditions. (3 h)**

Examination of the origins and development of Islam. Attention is given to the formation of Islamic faith and practice. (CD, D)

**REL 111. American Indian and First People's Traditions. (3 h)**

Multi-disciplinary study of thought and practice in past and present American Indian and other indigenous communities. (CD, D)

**REL 113. Introduction to Jewish Traditions. (3 h)**

Examines the history, thought, and practices of Jewish traditions in global perspective. (D)

**REL 200. Approaches to the Study of Religion. (3 h)**

Explores the history of and methodological resources for the study of religion. Focus may vary with instructor, but the emphasis is on the ways religion has been defined, studied, and interpreted over the last several centuries.

**REL 210. Jerusalem in History and Tradition. (3 h)**

An examination of the ways meaning and religious significance have been imparted to Jerusalem far beyond its significance in world history.

**REL 230. Religion and the U.S. Constitution. (3 h)**

Introduces the complex relationship between religion and the U.S. government through an in-depth analysis of the nation's founding documents and the subsequent series of First Amendment church-state decisions rendered by the United States Supreme Court.

**REL 242. Sex, Death and Salvation. (3 h)**

Examines how various religious traditions, past and present, have understood the overlapping notions of sexuality, human destiny, and the afterlife. (CD)

**REL 244. Religion, Terrorism, and Violence. (3 h)**

Investigates definitions of terrorism and examines religious motivations, justifications and legitimization of the use of violence in a number of belief systems. (CD)

**REL 246. Religion and Race. (3 h)**

Explores the relationship between religion and race, two categories that describe identity and that intersect in the lives of individuals and groups. Focus varies with instructor. (CD)

**REL 261. Foundations of Traditional Judaism. (1.5 h)**

A study of rabbinic and medieval Judaism, emphasizing the post-biblical codification of Jewish thought in the Mishnah, Talmud, and Midrash.

**REL 265. Culture and Religion in Contemporary Native America. (3 h)**

Interdisciplinary survey of American Indian culture, including the arts and literature, religions, and historical changes. Emphasizes the impact of the Conquista, encounters with Northern Atlantic societies, and contemporary developments. Also listed as AES 265. (CD)

**REL 266. Religious Sects and Cults. (3 h)**

Examines historical and contemporary issues in the study of new religious movements by analyzing media coverage of "cults" and investigating the history of specific groups.

**REL 267. Religion and Popular Culture. (3 h)**

Examination of the relationship between religion and popular culture, focusing on a variety of popular culture forms and interpretive skills. Focus varies with instructor.

**REL 280. God, Gods, and the Ultimate. (3 h)**

Comparative study of the way religious traditions—both Eastern and Western—conceptualize "Ultimate Reality" or "the Absolute" (e.g., God, Allah, Brahman, the Dao, Emptiness). Particular attention will be given to the historical evolution and the socio-religious implications of the various conceptualizations studied. (CD)

**REL 286. Directed Reading. (1-3 h)**

A project in an area of study not otherwise available in the department. May be repeated for credit. (Group I-III with department approval) P-POI.

**REL 287. Directed Reading. (1-3 h)**

A project in an area of study not otherwise available in the department. May be repeated for credit. (Group I-III with department approval) P-POI.

**REL 288. Field Program in Religion and Public Engagement. (1-3 h)**

Integrated study of major themes in religion and public engagement carried out in partnership with one or more communities off campus. May be repeated for credit. Focus varies with instructor. P- POI. On request.

**REL 290. Special Topics in Religion. (1.5-3 h)**

Religion topics of special interest. Group I-III with department approval. May be repeated for credit if topic varies.

**REL 291. Crossing Divides: Dialogues Across Faith and Culture. (1.5-3 h)**

Examines methods and practices of inter-religious dialogue with special attention to contemporary challenges. Focus varies with instructor. (CD)

**REL 292. Crossing Divides: Crossing Back: Peacemaking. (1.5-3 h)**

Examines methods and practices of inter-religious peacemaking with special attention to contemporary challenges. Focus varies with instructor. (CD)

**REL 304. Myth, Ritual & Symbolism. (3 h)**

Explores how people envision and manipulate the supernatural in cross-cultural perspective. Emphasizes functional aspects of religious beliefs and practices. Also listed as ANT 336. (CD) P-ANT 111 or 112 or 113 or 114 or POI.

**REL 305. Ethnography of Religion. (3 h)**

Study of theory and method in ethnography of religion where students closely read ethnographies from a variety of cultures and discuss the practical, methodological and ethical issues related to ethnography. Course culminates with students researching and writing their own ethnographies. (CD)

**REL 306. Ritual Studies. (3 h)**

Introduction to the various methods and theories employed in the field of ritual studies, while examining comparative rituals and ritualized practices from around the world.

**REL 307. Magic, Science and Religion. (3 h)**

Explores concepts of magic, science and religion that emerged in Western thought and culture from late antiquity through the European Enlightenment and analyzes connections between religious traditions and Western, Modern Science.

**REL 308. Sacred Scripture in the Traditions of Abraham. (3 h)**

A comparative study of sacred texts in Judaism, Christianity, and Islam with attention to the issues of authority, function and interpretation.

**REL 310. The Prophetic Literature. (3 h)**

An examination of the development and theological contents of the literary products of Israel's prophetic movement.

**REL 312. The Critical Study of the Pentateuch. (3 h)**

A study of the five traditional books of Moses (the Torah) and the various lines of analysis that modern Biblical critics have used to interpret their composition and role in the development of Israelite theological thought.

**REL 313. Near Eastern Archeology. (3 h)**

A survey of 20th century archeology in the Near East with attention to its importance for Biblical studies.

**REL 315. Field Research in Biblical Archeology. (3 h)**

A study of the religion and culture of the ancient Near East through the excavation and interpretation of an ancient site.

**REL 316. Field Research in Biblical Archeology. (3 h)**

A study of the religion and culture of the ancient Near East through the excavation and interpretation of an ancient site.

**REL 317. Wisdom Literature. (3 h)**

An examination of the development, literary characteristics, and theological contents of the works of ancient Israel's sages.

**REL 318. Feminist and Contemporary Interpretations of the New Testament. (3 h)**

A study of feminist and contemporary approaches to the New Testament in light of the history of New Testament interpretation and a range of contemporary concerns and interpretive contexts.

**REL 320. The Search for Jesus. (3 h)**

A study of issues, assumptions, evidence, and debate that shapes the continuing quest for the historical Jesus.

**REL 323. Jesus Traditions. (3 h)**

Examines ancient Christian and other religious representations of Jesus in historical, social, cultural, and theological context.

**REL 324. Early Christian Literature. (3 h)**

An examination of various literatures and perspectives of the first three centuries of the Christian movement.

**REL 328. Jewish-Christian Relations and the New Testament. (3 h)**

Study of Jewish-Christian relations and selected writings of the New Testament in the historical, social, religious and political contexts of ancient Judaism and emerging Christianity. Focus varies with instructor.

**REL 329. Chinese Medicine. (3 h)**

An interdisciplinary exploration and analysis of Chinese medicine, its fundamental theories, and its range of health-oriented and religious applications. (CD)

**REL 330. Pope, Jefferson and Imam: A Study in Comparative Ethics. (3 h)**

A comparative study of the moral values and socio-ethical positions in the major religious traditions of the world, with particular focus on their various methods of reasoning and sources of authority.

**REL 331. Religion and Law. (3 h)**

A study of religion and law as distinct yet interdependent spheres that influence cultural negotiations about authority, power, identity and the regulation of society. Geographic and tradition-specific focus may vary with instructor.

**REL 332. Religion and Public Engagement. (3 h)**

Examines the interface between religious communities and the public sphere, and the potential for social change in contemporary global and local contexts through a range of readings, guest lectures, field trips, and films. Traditions and emphasis may vary with instructor.

**REL 335. Religious Ethics and the Problem of War. (3 h)**

An examination of the causes and characteristics of war, various religious responses to it, and approaches to peacemaking, with attention to selected contemporary issues.

**REL 336. Religious Traditions and Human Rights. (3 h)**

A study of relationships and tensions between religious traditions and human rights, with illustrations from historical and contemporary issues and movements.

**REL 338. Religion, Ethics, and Politics. (3 h)**

An examination of ethical issues in religion and politics using materials from a variety of sources and historical periods.

**REL 339. Religion, Power, and Society in Modern Africa. (3 h)**

An interdisciplinary study of the growth transformations of Africa's major religious traditions (Christianity, Islam, and the indigenous religions), and of their relations with secular social changes. (CD)

**REL 341. Religion and Ecology. (3 h)**

Cross-cultural examination of the relationships among human beings, their diverse cultures, habitats, and religions, including social and political understandings of the environment.

**REL 342. Religious Intolerance in the U.S. (3 h)**

Study of the various manifestations of religious intolerance in the United States from the colonial period until the present.

**REL 343. Religion, Culture, and the Body. (3 h)**

A cross-cultural, multi-disciplinary-exploration of the body as a malleable locus of contested ideals that informs personal, social, and religious identity formation. (CD)

**REL 344. Religion, Poverty, and Social Entrepreneurship. (3 h)**

Interdisciplinary study of major themes in religion, poverty reduction, and social entrepreneurship. Focus and community emphasis may vary with instructor. Also listed as ENT 322.

**REL 345. The African-American Religious Experience. (3 h)**

Exploration of the religious dimensions of African-American life from its African antecedents to contemporary figures and movements. (CD)

**REL 346. Religious Utopias and the American Experience. (3 h)**

Surveys a range of such 18th- and 19th-century utopian communities, including Moravians, Rappites, Shakers, and the Oneida and Amana colonies. Also listed as HST 381.

**REL 347. Religion, Gender, & Sexuality. (3 h)**

Explores how "religion" regulates and normalizes gender and sexuality.

**REL 348. Race, Memory, and Identity. (3 h)**

Explores the collective memory and identity of American-Indian and African-American communities and their response to historical trauma in their cultural imagination, spirituality, and political and social activism. Also listed as HST 378. (CD)

**REL 349. Asian Meditation Practices. (3 h)**

Introduces and examines theoretical and practical aspects of various forms of Eastern meditation (concentration, mindfulness, Zen, visualization, and moving energy work) from both practitioner and modern scientific perspectives. (CD)

**REL 351. Sociology of Religion. (3 h)**

Introduction to the sociological analysis of religion, including religious beliefs and experiences, the cultural context of religion, varieties of religious organization, religious change and social change. Also listed as Sociology 301.

**REL 355. Jewish Identities: Religion, Race, and Rights. (3 h)**

Examines how evolving definitions of race, religion, and Jewishness have correlated and conflicted in varied and sometimes surprising ways and how these shifts have been tied to legal rights and social privileges. (CD)

**REL 356. Faces of Modern Judaism. (3 h)**

Examines contemporary expressions of Judaism and its historical roots. (CD)

**REL 357. Jews in the United States. (3 h)**

Examines Jewish American histories, experiences, and identities and their impact on American society as a whole.

**REL 359. Hinduism in America. (3 h)**

A study of the meanings, values, and practices associated with the religions of Hinduism in dialogue with the dominant culture of America. (CD)

**REL 360. Hindus, Muslims, & Sikhs in North America. (3 h)**

Examines the racialization of Hinduism, Islam, and Sikhism in North America using a postcolonial and intersectional approach. (CD)

**REL 361. Topics in Buddhism. (3 h)**

Variable topics in Buddhist history, thought, and/or practice. May be repeated for credit if topic varies. (CD)

**REL 362. Topics in Islam. (3 h)**

Variable topics in Islamic history, thought, and/or practice. May be repeated for credit if topic varies. (CD)

**REL 363. The Religions of Japan. (3 h)**

A study of the central religious traditions of Japan from pre-history to the present, including Shinto, Buddhism, Zen Buddhism, Christianity, and Confucianism. (CD)

**REL 364. Topics in U.S. Religious History. (1.5-3 h)**

Variable topics in U.S. religious history, thought, and/or practice. May be repeated for credit if topic varies.

**REL 365. History of Religions in America. (3 h)**

A study of American religions from colonial times until the present.

**REL 367. Christian Mysticism. (3 h)**

Study of Christian mysticism and contemplation (spirit possession, visions, dreams, and meditation) and their relation to contemporary issues.

**REL 368. Protestant and Catholic Reformations. (3 h)**

A study of the origin and development of Reformation theology and ecclesiology.

**REL 369. Radical Christian Movements. (3 h)**

A study of selected radical movements in the Christian tradition and their relation to contemporary issues.

**REL 372. History of Christian Thought. (3 h)**

A study of recurring patterns in Christian thought across time and cultures and some of the implications of those patterns in representative ancient and modern Christian figures.

**REL 373. Special Topics in African-American Religious Traditions. (3 h)**

Variable topics in African-American religious traditions. May be repeatable for credit if topic varies. (CD)

**REL 374. Black Messiahs and Uncle Toms. (3 h)**

Examines the cultural and religious history of black leadership in the United States. (CD)

**REL 375. Race, Myth, and the American Imagination. (3 h)**

A study of myth and mythology in relation to the racial imaginary in America. (CD)

**REL 376. Race, Religion, and Film. (3 h)**

Examines past and contemporary filmmakers who couple religious themes with racial concerns. (CD)

**REL 378. Latin American Liberation Theologies. (3 h)**

Historical, contextual, and theoretical survey of various forms of Latin American liberation theology, a school of Christian thought that both critiques systems of oppression and offers proposals for a more just and peaceful future.

**REL 381. Zen Buddhism. (3 h)**

Examines the origins and development of Zen Buddhism from China (Ch'an) to Japan and contemporary America. Attention is given to Zen doctrine and practice in the context of the broader Buddhist tradition. (CD)

**REL 382. Religion and Culture in China. (3 h)**

A thematic study of Chinese religious culture focusing on history, ritual, scripture, and popular practice. Additional topics will include cosmology, ancestor veneration, shamanism, divination, and the role of women. (CD)

**REL 383. The Quran and the Prophet. (3 h)**

Examines the history, content, and main approaches to the sacred book of Islam. Explores the influence and interaction between the holy word and its transmitter the Prophet Muhammad. (CD)

**REL 384. Islam and Law: Varieties in Interpretation and Expression. (3 h)**

Explores main tenets of the Islamic law (Shari'ah) and how this law has been applied in past and present Islamic societies. Looks at legal issues through the lens of gender, ethics, non-Muslim minorities, rights, and duties. (CD)

**REL 385. Topics in South Asian Religions. (3 h)**

Variable topics in the religions of South Asia. May be repeated for credit if topic varies. (CD)

**REL 386. Indian Epics. (3 h)**

Examines one or both Indian epics, the Mahabharata and Ramayana, while paying attention to either epic's religious, social, and political contexts, performance, and development in Indian history. (CD)

**REL 387. Priests, Warriors and Ascetics in Ancient India. (3 h)**

Introduces students to the history, culture, and ritual traditions of ancient India by examining the overlapping practices, beliefs, ideologies, and gendered representations of priests, warriors, kings, and ascetics. (CD)

**REL 388. South Asian Women: Religion, Culture and Politics. (3 h)**

Examines the intersection of religion, race and gender of South Asian women from a feminist and postcolonial perspective. (CD)

**REL 389. Islam in the West: Changes and Challenges. (3 h)**

Explores issues of identity, ethnicity and religion within various Muslim communities living in western countries. A central goal is to understand how these communities negotiate the new environment and the challenges they face.

**REL 390. Special Topics in Religion. (1.5-3 h)**

Religion topics of special interest. May be repeated for credit. Group I-III with department approval. P-POI.

**REL 391. Topics in East Asian Religions. (3 h)**

Variable topics in the religions of China, Korea, and Japan. May be repeated for credit if topic varies. (CD)

**REL 392. Topics in First Peoples' Traditions. (3 h)**

Variable topics in the religions of American Indian and Canadian First Nations. May be repeated for credit if topic varies. (CD)

**REL 393. Topics in Religions of Africa. (3 h)**

Variable topics in the religions of Africa or African diaspora. May be repeated for credit if topic varies. (CD)

**REL 395. Exploring Interfaith Practice and Leadership. (3 h)**

This online course on interfaith leadership invites students to consider how they might engage most effectively with people from a variety of religious backgrounds. POI.

**REL 396. Interreligious Encounters & Engagements. (3 h)**

Surveys the history of dialogue activities among various religious communities and introduces the methods and theories of interreligious dialogue. Part of this class is interaction with local interfaith projects.

**REL 398. Honors in Religion. (3 h)**

Directed study and research in preparation for writing and completing an honors thesis. P - Admission to the honors program in the Study of Religions.

**REL 399. Senior Colloquy. (1 h)**

This 1-hour capstone course, required for senior majors, is structured around writing and reflection on the major through readings, discussions, and portfolio development. Pass/fail only.



## Russian & E. European Studies (REE)

### REE 200. Introduction to Russian and East European Studies. (3 h)

An interdisciplinary survey of Russia and the Soviet Union, including an examination of society, polity, economy and culture over time. Also listed as HST 232. Students taking REE 200/HST 232 cannot receive credit for HST 230 or 231. (CD).

## Russian (RUS)

### RUS 111. Elementary Russian I. (4 h)

The essentials of Russian grammar, conversation, drill, and reading of elementary texts.

### RUS 112. Elementary Russian II. (4 h)

The essentials of Russian grammar, conversation, drill, and reading of elementary texts. P-RUS 111 or equivalent.

### RUS 153. Intermediate Russian. (4 h)

Principles of Russian grammar are reviewed and expanded upon; reading of short prose pieces and materials from the Russian press. P-RUS 112 or equivalent.

### RUS 210. Russians and Their World. (3 h)

Introduction to Russian culture and society, with topics ranging from history, religion, art and literature to contemporary Russian popular music, TV and film. Taught in Russian. P-RUS 153 or equivalent.

### RUS 212. Introduction to Russian Literature. (3 h)

Reading of selected short stories and excerpts from longer works by Russian authors from the 19th century to the present. P-RUS 153 or equivalent.

### RUS 317. Seminar in Russian Literature. (3 h)

In-depth reading and discussion of shorter works of poetry and prose by the foremost Russian authors from the 19th century to the present. P-RUS 212.

### RUS 321. Conversation and Composition. (3 h)

Intensive practice in composition and conversation based on contemporary Russian materials. P - RUS 210 or 212.

### RUS 328. Advanced Grammar. (3 h)

Mastery of Russian declension and conjugation, with special attention to the correct use of reference materials. Syntax of complex and problematic sentences. P-RUS 321.

### RUS 330. Structure of Russian. (3 h)

The linguistic tools of phonetics, phonemics, and morphophonemics are explained and applied to modern Russian. Emphasis on the study of roots and word formation. P-POI.

### RUS 332. The History of Russian Language. (3 h)

The evolution of Russian from Common Slavic to the modern language; theory of linguistic reconstruction and the Indo-European family; readings from selected Old East Slavic texts. P-RUS 321 and POI.

### RUS 335. Russian Culture and Civilization. (3 h)

Survey of Russian culture and civilization with emphasis on contemporary events, politics, and music and art. Conducted in Russian. Offered spring. P-RUS 321 or POI.

### RUS 340. Seminar in Translation. (3 h)

Advanced work in English-to-Russian and Russian-to-English translation. P-RUS 321 and POI.

### RUS 341. Russian Literature in Translation. (3 h)

Reading and discussion of selected works from Russian literature in English translation by such writers as Gogol, Dostoevsky, Tolstoy, Bulgakov, and Solzhenitsyn. (D)

### RUS 345. Special Topics in Russian. (3 h)

P-RUS 321, and Permission of Instructor.

### RUS 354. Language of the Russian Press and Mass Media. (3 h)

Readings from Russian newspapers, magazines and the Internet, as well as exposure to Russian television and radio broadcasts. Emphasis is on improving reading and listening skills and vocabulary acquisition. P-RUS 212 or POI.

### RUS 370. Individual Study. (1.5-3 h)

Study in language or literature beyond the RUS 210-212 level. May be repeated for credit. P-RUS 212.

### RUS 387. Honors in Russian. (2.5 h)

Conference course in Russian literature or culture. A major research paper is required. Designed for candidates for departmental honors.

### RUS 388. Honors in Russian. (2.5 h)

Conference course in Russian literature or culture. A major research paper is required. Designed for candidates for departmental honors.

## Sanskrit (SKT)

### SKT 111. Intro to Sanskrit. (3 h)

Two-semester sequence designed to introduce students to classical Sanskrit with emphasis on the basic principles of grammar, syntax, historical linguistics, and the reading of classical Indian texts. On Request.

### SKT 112. Intro to Sanskrit. (3 h)

Two-semester sequence designed to introduce students to classical Sanskrit with emphasis on the basic principles of grammar, syntax, historical linguistics, and the reading of classical Indian texts. On Request.

## Self Instructional Language (SIL)

### SIL 101. Self Instructional Language. (3 h)

A course in which students wishing to learn a language not offered at Wake Forest may arrange to study the language in consultation with a native speaker. This course does not count toward the linguistics minor without approval from the coordinator. Pass/Fail only. P-POI.

### SIL 102. Self Instructional Language. (3 h)

A course in which students wishing to learn a language not offered at Wake Forest may arrange to study the language in consultation with a native speaker. This course does not count toward the linguistics minor without approval from the coordinator. Pass/Fail only. P-POI.

## Sociology (SOC)

### SOC 150. Analyzing the Social World. (3 h)

Introduction to key findings and explanatory concepts in sociology through exploring large-scale data sets. Topics may include stratification by socio-economic status, gender, race, and sexual identity. (D, QR)

### SOC 151. Principles of Sociology. (3 h)

General introduction to the field; social organization and disorganization, socialization, culture, social change, social inequality, and other aspects. (D)



**SOC 152. Social Problems. (3 h)**

Survey of contemporary American social problems such as domestic and international poverty, education, immigration, crime and mass incarceration. (D)

**SOC 153. Contemporary Families. (3 h)**

The social basis of the family, emphasizing the problems growing out of modern conditions and social change. (D)

**SOC 154. The Sociology of Deviant Behavior. (3 h)**

A sociological analysis of the nature and causes of and societal reaction to deviant behavior patterns such as mental illness, suicide, drug and alcohol addiction, sexual deviation, and criminal behavior. (D)

**SOC 155. Public Engagement in USA and Other Post-industrial Societies. (3 h)**

An introduction to core concepts and explanations in social science for differences between the US and other nations on civic engagement, social mobility, educational attainments, public health, and leisure pursuits. (CD, D)

**SOC 270. Sociological Theory. (3 h)**

Introduction to classic and contemporary works of social theory, illustrating and exploring how sociologists analyze social forces, evaluate explanatory hypotheses, and prescribe social remedies. Authors explored range from the 19th century founding figures of Karl Marx, Max Weber, and Emile Durkheim, to contemporary theorists such as Ervin Goffman, Patricia Collins, Judith Butler, Michel Foucault, and Pierre Bourdieu. P - Any 100 level SOC course or POI.

**SOC 271. Social Statistics. (4 h)**

Computer-based survey of basic statistics utilized in sociological research. STA 111 (Elementary Probability and Statistics) or higher is strongly recommended as a prior course. Lab-1 hour. P-Any 100 level SOC course or POI. (QR)

**SOC 272. Research Methods in Sociology. (3 h)**

Overview of both quantitative and qualitative research methods. Research projects required. P - Any 100 level SOC courses or POI.

**SOC 301. Sociology of Religion. (3 h)**

Introduction to the sociological analysis of religion, including religious beliefs and experiences, the cultural context of religion, varieties of religious organization, religious change and social change. Also listed as REL 351.

**SOC 303. Business and Society. (3 h)**

Historical development, organization, and current problems of business enterprises in American society.

**SOC 305. Gender in Society. (3 h)**

The significance of gender in society for individuals and institutions. An examination of differential gender experiences based on race, class, and sexual orientation. Consideration of feminism as a social movement and the possibility for social change. (CD)

**SOC 308. Sociology of Art. (3 h)**

Art as an institution, its functions, organization, relationship to social change and to the communication of meanings.

**SOC 309. Sexuality and Society. (3 h)**

Study of the societal forces that impinge on human sexual behavior, emphasizing the effects of social change, the implications of changing gender roles, cross-cultural and subcultural variations, and the influence of the mass media.

**SOC 316. Conflict Management in Organizations. (3 h)**

An examination of conflict management and social control in organizations, focusing on power structures, management styles and processes of dispute resolution.

**SOC 320. Sociology of Sports and Art Worlds. (1.5 h)**

Seminar on social forces that structure the production and consumption of sports and the arts. Topics may include differences between American and world football; how culture capital determines engagement with the arts.

**SOC 321. Sociology of Contested Past. (1.5 h)**

Seminar on how societies remember their past and why it matters to contemporary social relations. Topics include cases studies of commemorative practices on the Nazi Holocaust, America's Civil War, and the relationship of American universities to slavery.

**SOC 325. The Individual and Society. (3 h)**

Introduces students to the field of sociological social psychology. Examines (1) how membership in social groups shape experiences; (2) the development of the self in social interaction; and (3) the creation of small group culture and structure. Also covers a range of substantive topics such as socialization, identity, emotions, prejudice, deviance, mental health and social change.

**SOC 327. Sociology of Emotion. (3 h)**

Exploration of the social side of emotion, including how emotions are socially learned, shaped, regulated, controlled and distributed in the population as well as the consequences of emotion norms, emotion management, emotional labor, and emotional deviance for individuals, social groups and society. P-one SOC course or POI.

**SOC 328. The Sociology of Food. (3 h)**

Examines systems of food production and their health consequences for workers and consumers; how social identities shape consumption choices and family food responsibilities; and analyzes food insecurity, food policy, and food-focused social movements from a sociological perspective.

**SOC 329. Health Inequalities. (3 h)**

Introduction to current sociological perspectives on the health and well-being of individuals, families, communities, and societies by examining the social determinants of inequalities in both mental and physical health (including reproductive health) based on socioeconomic status, gender, and race/ethnicity in the U.S. P-one SOC course or POI.

**SOC 330. Gender, Social Relationships, and Well-Being. (3 h)**

Examines how and why gender continues to shape men's and women's social relationships, including their social and economic well-being, their emotions and identities, as well as their mental and physical health over the life course. P-one SOC course or POI.

**SOC 331. The Social and Legal Contexts of Medicine. (3 h)**

Examines student socialization, the social structure of medicine and the social and legal contexts in which the medical profession exists and changes.

**SOC 334. Sociology of Education. (3 h)**

An evaluation of the major theories and significant empirical literature, both historical and statistical, on the structure and effects of educational institutions.

**SOC 335. Sociology of Health and Illness. (3 h)**

Examines processes of medicalization, the social experience of illness, cultural influences on the practice of medicine, and inequalities in access to care and resources to support health.

**SOC 336. Sociology of Healthcare. (3 h)**

Analyzes healthcare systems, including the social organization of medical practice, healthcare payment, the education of medical practitioners, and the division of the labor in healthcare.

**SOC 338. Courts and Criminal Procedure in the Era of Mass Incarceration. (3 h)**

An overview of the socio-organization of criminal courts and procedure in the US. The course examines the structure of courts, and questions how conceptualizations of justice and relationships of power have developed over time.

**SOC 339. Family Violence. (3 h)**

Examines family violence including child abuse, intimate partner violence, and elder abuse as well as the criminal justice response to these forms of violence.

**SOC 340. Corrections. (3 h)**

Surveys the political, economic and social factors influencing the historical development of the corrections system. Institutional corrections such as jails, boot camps and prisons will be examined as well as community-based approaches such as probation and parole.

**SOC 341. Criminology. (3 h)**

Introduction to the study of crime, including the development of criminal law, how crime is defined and measured, the patterns and trends of crime, and a review of theories explaining where, when, by whom and against whom crime happens.

**SOC 342. Juvenile Delinquency. (3 h)**

Examines the development of the juvenile justice system. Topics include the concept of childhood and delinquency, measurement of delinquent behavior, gender differences, the impact of relationships within the family, school, and peer groups, and an assessment of policies for control and prevention.

**SOC 343. Law and Society. (3 h)**

Study of the social and cultural factors in the development, maintenance, and change of legal structures and processes. Topics include law as a vehicle and agent of social change, the role of law in social control and dispute resolution, the structure and organization of the legal profession, and the images of law in popular culture.

**SOC 344. Social Justice in Theory, Method, and Practice. (3 h)**

Explores relationships between knowledge production, academic research, and social activism by surveying social science and humanities theory, research methods, and practice oriented toward social justice. Topics include critical theory, community-based research, and contemporary social movements.

**SOC 345. Advanced Seminar on Criminal Homicide. (3 h)**

Examines the various cultural and structural forces that have been identified as major factors in understanding criminal homicide.

**SOC 346. Sociology of Guns. (3 h)**

Examines the multifaceted roles guns play in the U.S. from a sociological perspective. Topics include the history and technology of firearms, origins and development of the 2nd Amendment to the U.S. Constitution, prevalence and distribution of guns, lawful possession and use of firearms, illegal gun markets, gun crime and injuries, gun politics and the efficacy of gun control.

**SOC 347. Society, Culture, and Sport. (3 h)**

An examination of the interrelationship of sport and other social institutions. Emphasis on the study of both the structure of sport and the functions of sport for society.

**SOC 348. Sociology of the Family. (3 h)**

The family as a field of sociological study. Assessment of significant historical and contemporary writings. An analysis of the structure, organization, and function of the family in America.

**SOC 351. Management and Organizations. (3 h)**

A study of macro-organizational processes and changes in contemporary industrial societies and their effects upon managerial systems, managerial ideologies and managers in firms.

**SOC 352. White-collar Crime. (3 h)**

Study of criminal activity committed in the course of legitimate occupations including workplace crime, graft, and business crime.

**SOC 354. Women in Poverty in the U.S.. (3 h)**

An examination of the structural causes of poverty and its consequences, with specific emphasis on women's overrepresentation in poverty and how gender intersects with race, family status, age, and place.

**SOC 355. Social Psychology of Inequality. (3 h)**

Introduction to social psychological perspectives on social inequality with a focus on microlevel structures and processes underlying inequality including gender, age, race/ethnicity, as well as socioeconomic and sexual minority status. P-one SOC course or POI.

**SOC 356. Sociology of Immigration. (3 h)**

Traces the waves of immigration historically and examines current policies and debates, with an emphasis on the political, economic, and social consequences of immigration in the post 1965 era. The focus will be on the United States, but will also consider cross-national comparisons. (CD)

**SOC 359. Race and Racism. (3 h)**

Examines the origins and effects of racial inequality and relationships between race and ethnic groups with a focus on the United States. (CD)

**SOC 360. Social Inequality. (3 h)**

The study of structured social inequality with particular emphasis on economic class, social status, and political power. (CD)

**SOC 362. Work, Conflict, and Change. (3 h)**

Changing trends in the United States labor force. The individual's view of work and the effect of large organizations on white- and blue-collar workers. Use of some cross-cultural data.

**SOC 363. Global Capitalism. (3 h)**

An analysis of industrial organization, including discussion of market relations and the behavior of firms, the structure of industrial development, and labor relations and the growth of trade unions. Also listed as INS 363.

**SOC 364. Power, Politics, and Protest. (3 h)**

Analyzes the interactions between politics, the state and society. Topics include public and social policies, political engagement and social movements, and social change.

**SOC 365. Technology, Culture, and Change. (3 h)**

Examines the interrelated forces that shape change in organizations and societies; from the emergence of capitalist markets to the systems, controls, and information revolution of the 21st century. Also listed as INS 365.

**SOC 366. Sociological Analysis of Film. (3 h)**

Examines the intersection of economic, organizational, and cultural sociology using films and the film industry as focal examples.

**SOC 367. Sociology of Culture. (3 h)**

Examines the most powerful explanatory schools in sociology in the fields of cultural production and consumption. Topics include: stylistic change and the consumption of visual and performance arts; musical tastes; the production and consumption of literature; museum attendance; education and culture; and architecture and design.

**SOC 368. Death and Dying. (1.5 h)**

Analyzes how the experience of physical decline is socially and medically managed, and the role social rituals play in the aftermath of death and grief.

**SOC 369. Social Movements. (3 h)**

Examines social movements and public protest with a focus on why movements arise, how they operate, and what effects they have on participants and on society.

**SOC 380. Special Topics Seminar in Social Institutions. (3 h)**

Intensive investigation of current scientific research on issues involving family, religion, education, politics, and sport.

**SOC 381. Special Topics Seminar in Social Inequality. (3 h)**

Intensive investigation of current scientific research on issues involving gender, class, race, poverty, and sexuality.

**SOC 382. Special Topics Seminar in Social Psychology. (3 h)**

Intensive investigation of current scientific research on issues in the areas of social psychology, the individual, and the social self.

**SOC 383. Special Topics Seminar in Medicine and Health Care. (3 h)**

Intensive investigation of current scientific research on issues in medicine, illness, and health care.

**SOC 384. Special Topics Seminar in Crime and Criminal Justice. (3 h)**

Intensive investigation of current scientific research on issues about crime, police, courts, and corrections.

**SOC 385. Special Topics Seminar in Business and Society. (3 h)**

Intensive investigation of current scientific research on issues in business, work markets, and management.

**SOC 386. Special Topics Seminar in Culture and Social Movements. (3 h)**

Intensive investigation of current scientific research on issues involving, culture, social change, and social movements.

**SOC 390. Special Topics Seminar in Sociology. (1.5-3 h)**

Survey of a selected area in sociology not covered in the regular course offerings. Prospective students should contact the professor before enrolling as topics will vary.

**SOC 391. Special Topics Seminar in Sociology. (1.5-3 h)**

Survey of a selected area in sociology not covered in the regular course offerings. Prospective students should contact the professor before enrolling as topics will vary.

**SOC 394. Research with Faculty. (0.5-3 h)**

Awards credit to students assisting with a research project led by a faculty member. Students can earn a maximum of six credits (pass/fail) between SOC 394 and 395, but only three credits can be counted toward the major or minor. P-POI.

**SOC 395. Research with Faculty. (0.5-3 h)**

Awards credit to students assisting with a research project led by a faculty member. Students can earn a maximum of six credits (pass/fail) between SOC 394 and 395, but only three credits can be counted toward the major or minor. P-POI.

**SOC 398. Individual Study. (1-3 h)**

Reading, research, or internship courses designed to meet the needs and interests of selected students, to be carried out under the supervision of a departmental faculty member.

**SOC 399. Individual Study. (1-3 h)**

Reading, research, or internship courses designed to meet the needs and interests of selected students, to be carried out under the supervision of a departmental faculty member.

## Spanish (SPA)

**SPA 111. Elementary Spanish I. (3 h)**

A two-semester sequence designed to help students develop the ability to understand and speak Spanish and also learn to read and write Spanish at the elementary level. Labs required.

**SPA 112. Elementary Spanish II. (3 h)**

A two-semester sequence designed to help students develop the ability to understand and speak Spanish and also learn to read and write Spanish at the elementary level. P-SPA 111 or equivalent. Labs required.

**SPA 113. Intensive Elementary Spanish. (4 h)**

A course reviewing the material of SPA 111-112 in one semester, intended for students whose preparation for SPA 153 is inadequate. Credit not given for both SPA 113 and SPA 111 or 112. Labs required. By placement or faculty recommendation.

**SPA 153. Intermediate Spanish. (4 h)**

Intermediate-level course covering the structure of the language, developing students' reading, writing, and conversation skills and preparing them for oral and written discussion of readings. Note that SPA 153 and 154 are mutually exclusive. Labs required. P—SPA 111-112, or 113; or placement.

**SPA 153S. Intensive Beginning and Intermediate Spanish in an Immersion Setting. (5 h)**

Designed to enable students to achieve proficiency in Spanish language at the beginning-intermediate level by developing reading, writing, and conversation skills and preparing students for oral and written discussion of readings. Offered only in the summer. (ISLI) P—SPA 112 or 113; or placement; or POI.

**SPA 154. Accelerated Intermediate Spanish. (3 h)**

An intensive, intermediate-level course intended for students with a stronger background than 153 students. It offers the opportunity to develop further their reading, writing, and conversation skills and prepare for oral and written discussion of readings. Labs required. P-POI or placement.

**SPA 195. Spanish Language and Culture. (1-3 h)**

Spanish vocabulary, grammar, and culture. Offered only in Wake Forest study abroad programs. P-POI.

**SPA 197. Spanish for Reading Knowledge. (1.5 h)**

Review of essential Spanish grammar, usage, vocabulary and processing strategies for reading various types of literary, social science and technical publications for content. Designed for students interested mainly in strengthening reading proficiency in the language, and aimed at preparing students to take the graduate reading exam administered at the end of the course. Undergraduate credit given. Offered in the first half of the semester. Pass/Fail only. P-Intermediate Spanish or its equivalent, and placement exam.

**SPA 198. Service Learning in Spanish Language. (1.5 h)**

Experiential learning that links classroom instruction and community service done as an adjunct to specially-designated courses throughout the Spanish curriculum. Pass/Fail only. May be repeated for credit. P-POI.

**SPA 199. Internship in Spanish Language. (1.5, 3 h)**

Under faculty direction, a student undertakes a language project in conjunction with a service commitment or internship in a Spanish-speaking country. Includes, but is not limited to, vocabulary building, keeping a journal, and reading professional material. Offered only in Salamanca. May be repeated for credit. Pass/fail only. P - SPA 309 or 309L; or POI.

**SPA 212. Exploring the Hispanic World. (3 h)**

Explores significant cultural expressions from the Spanish-speaking world. Emphasizes both the development of competence in speaking, reading and writing Spanish, and understanding how particular Hispanic societies have defined themselves. Credit not allowed for both SPA 212 and 213. P—SPA 153; or equivalent.

**SPA 213. Encounters: Hispanic Literature and Culture. (4 h)**

Encounters with significant literary expressions from the Spanish-speaking world. Emphasizes the advancement of competence in speaking, reading and writing, and the analysis of literature in its cultural contexts. Credit not allowed for both 213 and 212. P—SPA 153 or equivalent.

**SPA 280. The Spanish-Speaking World: Portals and Perspectives. (3 h)**

Examination of the diversity of cultural, linguistic, and artistic expressions and the role of Spanish in today's globalized world. P—SPA 212 or 213; or POI; or placement.

**SPA 280L. The Spanish-Speaking World: Portals and Perspectives for Heritage Speakers. (3 h)**

Examination of the diversity of cultural, linguistic, and artistic expressions and the role of Spanish in today's globalized world. Open to heritage speakers of Spanish only. P-SPA 212 or 213; or POI; or placement.

**SPA 290. Workshop in Critical Reading and Writing. (3 h)**

Practice in language analysis with emphasis on developing effective reading and writing strategies. Not open to students who have already completed 7 hours in the major. P-SPA 212 or 213; or POI.

**SPA 300A. Spanish Across the Curriculum. (1.5 h)**

Course work in Spanish done as an adjunct to specially-designated courses throughout the college curriculum. May be taken for grade or Pass/Fail. May be repeated for credit. P-POI.

**SPA 300B. Spanish Across the Business/Economics Curriculum. (1.5 h)**

Coursework in Spanish done as an adjunct to specifically-designated courses in business and economics curriculum. May be repeated for credit. P-POI.

**SPA 300C. Spanish Across the Sciences Curriculum. (1.5-3 h)**

Coursework in Spanish done as an adjunct to specifically-designated courses in the sciences and medical curriculum. May be repeated for credit. P-POI.

**SPA 301. Intensive Spanish. (1.5 h)**

Intensive study and practice of the oral and written languages. Familiarization with Spanish culture and daily life. Classes in conversational and idiomatic Spanish, excursions to points of interest and lectures on selected topics. Pass/Fail only. Does not count towards the major or minor.

**SPA 303. Spanish Conversation. (3 h)**

Based on cultural material intended to increase students' aural skills and oral proficiency by systematically increasing vocabulary and reinforcing command of specific grammatical points. Counts toward the major. Students whose speaking skills, in the instructor's judgment, are already advanced, may not enroll. P—200-level course or equivalent.

**SPA 303I. Language Study in the Context of an Internship. (1.5, 3 h)**

Development of oral proficiency and writing skills. Reading, discussions, and writing assignments based on texts relevant to internships being undertaken by students. Must be taken in conjunction with SPA 199. The combinations of this course and SPA 199 may count as a maximum of 3 hours toward the major or minor. P - a 200-level course.

**SPA 304. Selected Topics in Spanish Language and Hispanic Culture. (3 h)**

Topics vary. Offered only in Abroad Programs. May be repeated for credit when the topic changes. P - 200-level SPA course or equivalent.

**SPA 309. Grammar and Composition. (4 h)**

Systematic study of Spanish morphology, sentence structure, and expository usage applied to various kinds of composition, including description, narration, and argumentation. P— SPA 280 or equivalent.

**SPA 309L. Grammar and Composition for Heritage Speakers of Spanish. (4 h)**

Systematic study of Spanish orthography, word formation, sentence structure, and expository usage applied to various written forms. Emphasis on grammatical knowledge, vocabulary development, and extensive writing practice. Content and skills intended for heritage speakers who are competent in spoken Spanish but want to improve their writing skills. P—200-level course or equivalent and POI.

**SPA 310. Anecdotes, Bestsellers, Cuentos. The ABCs of Storytelling in the Spanish-Speaking World. (3 h)**

Traces the development of prose fiction and non-fiction, with special attention to signature movements, texts, and representative writers. P— SPA 280 or 290.

**SPA 311. Bard, Ballad, Bolero. Poetry, and Song in the Spanish-Speaking World. (3 h)**

Survey of poetry and music with study of representative examples from a variety of periods and countries. P—SPA 280 or 290.

**SPA 312. Page, Stage, and Performance. Theater and Drama of the Spanish-Speaking World. (3 h)**

Survey of theatrical productions and dramatic texts with study of representative examples from a variety of periods and countries. P— SPA 280 or 290.

**SPA 313. Lights, Camera, ¡Acción!. Cinema and Culture in the Spanish-Speaking World. (3 h)**

Traces the development of cinematic arts and industry, with special attention to signature movements, films, and directors and the representation of cultures on screen. P—SPA 280 or 290.

**SPA 315. The Making of Spain: Interdisciplinary Approaches to the Cultures of Spain. (3 h)**

Examination of Spain's cultural pluralism through visual arts, architecture, film, music, and literature from the medieval period to the present. P— SPA 280 or 290. (CD)

**SPA 316. Paradise in Perspective: An Interdisciplinary Approach to the Wider Caribbean. (3 h)**

Examination of Hispanic Caribbean cultures through visual arts, architecture, film, music, and literature from the pre-Columbian period to the present. P—SPA 280 or 290. (CD)



**SPA 317. Distant Neighbors: Interdisciplinary Approaches to Mexico and Central America. (3 h)**

Examination of Mexican and Central American cultures within today's global world through visual arts, architecture, film, music, and literature from the pre-Columbian period to the present. P - SPA 280 or 290. (CD)

**SPA 318. The Andes to Patagonia: Interdisciplinary Approaches to South American Culture. (3 h)**

Examination of Andean and Southern Cone cultures through visual arts, architecture, film, music, and literature from the pre-Columbian period to the present. P—SPA 280 or 290. (CD)

**SPA 319. Literary and Cultural Studies of Spanish America. (3 h)**

Study of selected major works of Spanish-American literature within their historical and cultural contexts. Emphasis on linguistic and political structures, intellectual currents, art, music, and film to promote understanding of Spanish America's historical development. Offered only in WFU abroad programs. P-SPA 280 or 290. (CD)

**SPA 320. Introduction to Hispanic Linguistics. (3 h)**

Survey of the core areas in Hispanic linguistics: phonetics, phonology, morphology, syntax, semantics, and language variation. Basic concepts and methodology of linguistic analysis as preparation for further study in the field. P—SPA 309 or 309L.

**SPA 322. Spanish pronunciation and Dialect Variation. (3 h)**

Description of, and practice with, the sounds, rhythm, and intonation of Spanish and the differences from English, with special attention to social and regional diversity. Strongly recommended for improving pronunciation. Meets a N.C. requirement for teacher certification. P—SPA 309 or 309L.

**SPA 325. Spanish for Business I. (3 h)**

Introduction to the vocabulary and skills necessary to perform effectively in Hispanic business settings. Emphasis on oral and written practices, reading, and intercultural knowledge of business practices. P-SPA 309 or 309L or POI.

**SPA 326. International Business: Spain/Latin America. (3 h)**

Study of characteristic features of Spanish and/or Latin American business culture. Focuses on communicating successfully in the world of Hispanic commerce and on acquiring an international view of current issues in business. Offered only in WFU abroad programs. P-SPA 309 or 309L or POI.

**SPA 327. Spanish for Business II. (3 h)**

Continued study of the discourse used in Hispanic business settings. Emphasis on oral and written business presentations, reading and analysis of case studies, and intercultural knowledge of the business world. P-SPA 309 or 309L or POI.

**SPA 328. Medical Spanish. (3 h)**

Study of terminology and sociocultural issues relevant to interlinguistic medical communication. Oral and written practice in the medical context. P - SPA 309 or 309L; or POI.

**SPA 329. Intermediate Topics in Literary and Cultural Studies. (3 h)**

Selected topics in Spanish and/or Spanish-American literature and culture offered at an intermediate level. Topics vary. Offered only in WFU abroad programs. May be repeated for credit when topic changes. P-SPA 280 or 290.

**SPA 330. The Debate about Woman in Late Medieval Spain. (3 h)**

Explores romantic love in the Iberian Peninsula in the 14th and 15th centuries focusing on the debate about woman as an index of the social changes happening at that moment. P—any course in SPA 310-SPA 319 sequence; or POI.

**SPA 331. Medieval Spain: A Cultural and Literary Perspective. (3 h)**

Examines literary, social, and cultural themes, such as: Quests and Discoveries, Pilgrimage and the Act of Reading, Images of Islam, The Judaic Tradition in Spanish Literature, and Spiritual Life and Ideal. P—any course in SPA 310-SPA 319 sequence; or POI.

**SPA 332. The Golden Age of Spain. (3 h)**

Close analysis of literary texts, such as *Lazarillo de Tormes*, and study of the history, art, politics, and economics of the 16th and 17th centuries, with emphasis on themes such as the writer and society, humanism, the picaresque, Catholic mysticism, and power and politics. P—any course in SPA 310-SPA 319 sequence; or POI.

**SPA 333. The Spain of Don Quijote. (3 h)**

Study of the novel *Don Quijote* and its film adaptations, with emphasis on the portrayal of gender roles and individual and collective identity. P-any course in SPA 310-SPA 319 sequence; or POI.

**SPA 334. Voices of Modern Spain. (3 h)**

Study of the multifaceted cultural identity of contemporary Spain through different literary genres, art, and film. P-any course in SPA 310-SPA 319 sequence; or POI.

**SPA 335. Love, Death, and Poetry. (3 h)**

Study of the representation of universal themes in Spanish poetry from different historical periods. P-any course in SPA 310-SPA 319 sequence; or POI.

**SPA 336. Lorca, Dali, Bunuel: An Artistic Exploration. (3 h)**

Study of the relationship of these three Spanish artists through their writings, paintings, and films, respectively, and of their impact on the 20th century. P-any course in SPA 310-SPA 319 sequence; or POI.

**SPA 337. Contemporary Theater from Spain. (3 h)**

Study of major dramatic works from Spain. P-any course in SPA 310-SPA 319 sequence; or POI.

**SPA 338. Fashioning Class, Gender, and National Identity in 18th/19th-Century Spain. (3 h)**

Explores representations of social class, gender, and national identity in the literature and visual culture of Spain (fashion, illustrated press, etc.) of 18th/19th-Century Spain. Topics vary, but overarching themes may range from royal identity and Enlightenment to industrialization and middle-class culture. P-any course in SPA 310-SPA 319 sequence; or POI.

**SPA 341. Latin American Historical Fiction: Memory, Myth, and Social Justice. (3 h)**

Introduction to the ways Latin American historical fiction has shaped public memory over the past five centuries. Representative novels, plays, poems, films, and short stories. P-any course in SPA 310-SPA 319 sequence; or POI.

**SPA 342. From Colonial to Postcolonial Voices. (3 h)**

Exploration of twentieth- and twenty-first century literary, artistic, and cinematic adaptations of colonial stories of discovery by writers, artists, and filmmakers from Spain and Spanish America. P-any course in SPA 310-SPA 319 sequence; or POI.

**SPA 343. Travel Literature. (1.5-3 h)**

Analyzes various cultural documents to ask questions such as: what do travelers report seeing, how do they describe their journeys and why? In the past and the present, how has travel literature influenced European perceptions of the Americas and vice versa? P-any course in SPA 310-SPA 319 sequence; or POI.



**SPA 344. The 18th- and 19th-century Periodical Press in Spain and Spanish America. (1.5-3 h)**

Explores the role of newspaper culture for Enlightenment projects. Topics include patriotism, national histories, natural histories, cultural critique, science and satire. P-any course in SPA 310-SPA 319 sequence; or POI.

**SPA 345. The Transatlantic Civil War. (3 h)**

Exploration of the artistic and literary responses to the Spanish Civil War. Emphasis on the resulting cultural exchange among Spain, Latin America, and the United States. P-any course in SPA 310-SPA 319 sequence; or POI.

**SPA 346. Transatlantic Transitions: Postdictatorship in Spain and the Southern Cone. (3 h)**

Examination of the intersections among trauma, memory, and culture in Spain, Argentina, Chile, and Uruguay during and after the rule of dictatorial regimes in the late twentieth century. Relates political needs for reconciliation, reconstruction, and remembrance to specific aesthetic strategies. P-any course in SPA 310-SPA 319 sequence; or POI.

**SPA 347. Contemporary Theater in Spain and Spanish America. (3 h)**

Study of contemporary Peninsular and Spanish-American theater within its political, social, cultural, and aesthetic context. P-any course in SPA 310-SPA 319 sequence; or POI.

**SPA 348. Contemporary Women Novelists and their Female Characters. (3 h)**

Study of representative novels by women writers from Spain and Latin America, with emphasis on the representation of the female protagonist within her cultural context. P-any course in SPA 310-SPA 319 sequence; or POI.

**SPA 349. Great Authors and Directors. (1.5-3 h)**

Study of works by a major Hispanic author or film director with attention to formative contexts as well as aesthetic, cultural, and socio-political legacies. May be repeated for credit when focus changes. P-any course in SPA 310-SPA 319 sequence; or POI.

**SPA 350. Film Adaptations of Literary Works. (3 h)**

Study of the cinematic and literary discourses through major Spanish literary works from different historical periods and their film adaptation. P-any course in SPA 310-SPA 319 sequence; or POI.

**SPA 351. Cinema and Society. (3 h)**

Exploration of a specific national or regional film history with particular attention to cinematic representations of social, political, and cultural contexts. May be repeated for credit when focus changes. P-any course in SPA 310-SPA 319 sequence; or POI.

**SPA 355. Romantic Nationalism, Avant-garde Nihilism, and the Deconstruction of Utopia. (3 h)**

Study of Latin-American poetry, including symbolist, surrealist, and conversational poetry, "happenings," and artistic manifestoes. Politics, nation-building, liberation theology, and love are common themes. P-any course in SPA 310-SPA 319 sequence; or POI.

**SPA 356. Transgressing Borders: Identity in Latin-American and U.S. Latino Cultures. (3 h)**

Socio-historical study of theories on culture, sexual politics, and race in relation to literary texts, lyrics of popular music, and art of Latin America and the diaspora. P-any course in SPA 310-SPA 319 sequence; or POI.

**SPA 357. Spanish American Short Story. (3 h)**

Intensive study of the 20th-century Spanish-American short story with emphasis on major trends and representative authors, such as Quiroga, Rulfo, Borges, Cortázar, Donoso, and García Márquez. P-any course in SPA 310-SPA 319 sequence; or POI.

**SPA 358. Spanish-American Novel. (3 h)**

Study of the novel in Spanish America from its beginning through the contemporary period. P-any course in SPA 310-SPA 319 sequence; or POI.

**SPA 359. Spanish-American Theater: From Page to Stage. (3 h)**

Study of the transition of a dramatic work from text to performance and the role of Spanish-American theater as a vehicle for cultural values and socio-political issues. Includes rehearsals for the public staging of selected one-act plays. Proficiency in Spanish and willingness to act on stage are required. P-any course in SPA 310-SPA 319 sequence; or POI.

**SPA 360. Contemporary Theatre. (3 h)**

Study of major dramatic works from various Latin-American countries. P-any course in SPA 310-SPA 319 sequence; or POI.

**SPA 361. Fictions of Mexican Revolution. (3 h)**

Explores 20th-century Mexican cultural production as it relates to the Mexican Revolution (1910-1920). Readings include novels, shorts stories, popular poetry, and historiographic texts. Attention to Mexican muralism and cinema, and special emphasis on relationships between literature, history, and contemporary politics. P-any course in SPA 310-SPA 319 sequence; or POI.

**SPA 362. Masculinity in Mexican Cinema. (3 h)**

Explores representations of masculinity in contemporary Mexican film (1990-present) with attention to film genres, aesthetic movements, national and global sociopolitical contexts, and gender politics. P-any course in SPA 310-SPA 319 sequence; or POI.

**SPA 363. Cultural and Social Entrepreneurship: Promotion of Latin American and Latino Societies. (3 h)**

Sparks interdisciplinary entrepreneurial thinking about careers in arts and educational organizations that both serve and promote Latino communities and provides the knowledge and skills to implement effective programming. P-any course in SPA 310-SPA 319 sequence; or POI.

**SPA 364. Indigenous Literatures and Visual Arts in Latin America. (3 h)**

Study of the images, identities, and self-representations of contemporary indigenous societies in 20th- and 21st-century Latin America. Analysis and discussion of literary texts and visual arts. P-any course in SPA 310-SPA 319 sequence; or POI.

**SPA 366. Advanced Topics in Literary and Cultural Studies. (3 h)**

Selected topics in Spanish and/or Spanish-American literature and culture offered at an advanced level. Topics vary. Offered only in WFU abroad programs. May be repeated for credit when topic changes. P-any course in SPA 310-SPA 319 sequence; or POI.

**SPA 367. Cuban Literature. (3 h)**

Study of Cuban literature from the 18th century to the present: romanticism, modernism, naturalism, the avant-garde movement, and the post-Revolutionary period. Offered in Havana. P-any course in SPA 310-SPA 319 sequence; or POI.

**SPA 368. Afro Cuban Cultural Expression. (3 h)**

Comprehensive study of Cuban culture with a concentration on the artistic manifestations of Afro-Cuban religions. Students study literature, art, film, music, and popular culture to analyze how Afro-Cuban culture constitutes national culture. Offered in Havana. Also listed as LAS 220C. P-any course in SPA 310-SPA 319 sequence; or POI. (CD)

**SPA 369. Special Topics in Literary and Cultural Studies. (1.5, 3 h)**

Selected special topics in Hispanic Spanish-American literature and culture. May be repeated for credit when topic changes. P-any course in SPA 310-SPA 319 sequence; or POI.

**SPA 370. History of the Spanish Language. (3 h)**

The development of Spanish from an early Romance dialect to a world language. Study of changes in the language's sounds, grammar, and vocabulary system, with a special focus on the effects of a cultural history and relationships with other languages. P-SPA 309 or 309L and (recommended) LIN 150/ANT 150, or SPA 320.

**SPA 371. Contrastive Spanish/English Grammar and Stylistics. (3 h)**

Advanced study of structure and style in a variety of Spanish texts, with an in-depth approach to idiomatic expressions and some back/cross translation exercises. P-SPA 309 or 309L and (recommended) LIN 150/ANT 150, or SPA 320.

**SPA 372. Acquisition of Spanish. (3 h)**

Comparative study of first language acquisition, adult second language acquisition, and heritage speaker bilingualism. Emphasis on stages of acquisition, influencing factors, and typical outcomes. P-SPA 309 or 309L; or POI.

**SPA 373. Language and Society. (3 h)**

An introduction to the study and methodologies of Spanish sociolinguistics. Emphasis on language and its interaction with socio-economic status, gender, age, ideology, governmental policy, and identity in Spanish-speaking communities. P-SPA 309 or 309L.

**SPA 379. Special Topics in Hispanic Linguistics. (3 h)**

Investigation of key areas in Spanish languages research, such as dialectology, history, language acquisition, and usage. May be repeated for credit. P-SPA 309 or 309L and (recommended) LIN 150/ANT 150, or SPA 320.

**SPA 380. Spanish for the Professions. (3 h)**

Spanish usage of a selected professional area. Emphasizes communication in typical situations and interactions, specialized vocabulary, cultural differences, and related technical readings in the subject matter. Topics offered from the following list: a. Health Occupations; b. Social Work; c. Law and Law Enforcement; d. Other (on demand). P—SPA 309 or 309L; and any course in SPA 310-SPA 329 sequence; and POI.

**SPA 381. Spanish Translation. (3 h)**

Introduces translation strategies through practice, with emphasis on Spanish into English. Focuses on translating in domains such as social science, computing, economics, the entertainment industry, banking, and journalism. P—SPA 309 or 309L; and any course in SPA 310-329 sequence; and SPA 371; or POI.

**SPA 382. Spanish/English Interpreting. (3 h)**

Introduces strategies of interpreting from Spanish into English, primarily. Intensive laboratory practice course to develop basic skills inconsecutive/escort/simultaneous interpreting. Some voice-over talent training is also included. P - SPA 309 or 309L; and any course in SPA 310-SPA 329 sequence; and senior standing or POI.

**SPA 383. Medical and Scientific Translation. (3 h)**

Introduces strategies for translation of documentation relevant to healthcare setting and scientific domains through applied projects. Study of textual conventions and creation of domain-specific resources to support translation process. P - SPA 309 or 309L; or POI.

**SPA 384. Internships for STL & SI. (1.5-3 h)**

Under faculty supervision, a student undertakes a translation/interpreting project at a translation bureau or translation department of a company/public organization. A community service-oriented internship is preferred for interpreting. Does not count toward major of minor. P-SPA 381 or 382.

**SPA 385. Special Topics in Translation. (3 h)**

Selected topics in Translation Studies ranging from translation theories and descriptive studies to applied translation and related areas such as, terminology, documentation and language industries, among other relevant fields. May be repeated if course content differs. P-SPA 309 or 309L; and any course in SPA 310-SPA 329, or SPA 371 or POI.

**SPA 386. Special Topics in Interpreting. (3 h)**

Selected topics in Interpreting Studies including different interpreting settings, specialized interpreting, terminology for interpreting. May be repeated if content differs. P-SPA 309 or 309L; and any course SPA 310-SPA 329 sequence, or SPA 371 or POI.

**SPA 387. Cultural Industries and Institutions in Spain and Spanish America. (3 h)**

Study of key cultural traditions and theories of art and cultural economics, focusing on international cooperation, business and law, and on the construction of intercultural and professional identities. P-SPA 309 or 309L; and any course in SPA 310-SPA 329 sequence, or SPA 371 or POI.

**SPA 388. Global Negotiation and Conflict-Management Skills in a Spanish-Speaking Setting. (3 h)**

Examines through case studies topics such as "power with" vs. "power over" in international negotiation strategies; negotiation power, influence, and trust in a Spanish and Spanish-American context; and cultural, situational, and social factors of virtual negotiations. P— SPA 309 or 309L; and any course in SPA 310-SPA 329 sequence, or SPA 371 or POI.

**SPA 390. International Business: Spain and Latin America. (3 h)**

Study of the most characteristic features of the economic and financial situation and perspectives in Spain and Latin America. Focuses on communicating successfully in the world of Hispanic business and on acquiring an international view of that world and its cultural differences. Counts as elective for the Spanish major. P-SPA 309 or 309L; or POI.

**SPA 391. Internship in Spanish for Business and the Professions. (1.5-3 h)**

Under faculty supervision, a student completes an internship in a bilingual business or professional setting. Does not count toward major or minor in Spanish. Pass/Fail only. P—SPA 309 or 309L; or POI.

**SPA 397. Spanish Independent Study. (1-3 h)**

P-POI.

**SPA 398. Honors Directed Reading and Research. (1.5 h)**

Required for honors in Spanish. P-POI.

**SPA 399. Honors Directed Writing. (3 h)**

Required for honors in Spanish. P-POI.

## Sports Medicine (SPM)

**SPM 201. Basic Athletic Training. (3 h)**

A study of the basic knowledge and skills in the prevention, treatment, and care of common athletic injuries.

**SPM 302. Advanced Athletic Training. (3 h)**

## Statistics (STA)

**STA 107. Explorations in Statistics. (3 h)**

Introduction to statistical literacy and the role of statistics in settings such as elections, medicine, sports, and the sciences. Topics vary by instructor. (D, QR)

**STA 111. Elementary Probability and Statistics. (4 h)**

Data collection and visualization, exploratory analysis, introductory probability, inference techniques for one variable, and statistical literacy. Lab. (D, QR)

**STA 112. Introduction to Regression and Data Science. (3 h)**

A foundational course in regression and data science. The course introduces data analysis through statistical computing in R, least-squares and logistic regression, model selection, and data visualization. P-STA 111 or POI. (D, QR)

**STA 175. Competitions. (1-3 h)**

Seminar designed for students who wish to participate in statistics and/or data analysis competitions. Not to be counted toward any major or minor offered by the department. May be repeated for credit. Pass/Fail only.

**STA 247. Design and Sampling. (3 h)**

Experimental designs, observational studies, survey design and estimation with stratified, cluster, and other sampling schemes. P-STA 111 or STA 212 or POI. (D)

**STA 279. Topics in Statistics. (1-3 h)**

Topics in statistics not considered in regular courses, or which continue study begun in regular courses. Content varies.

**STA 310. Probability. (3 h)**

Distributions of discrete and continuous random variables, sampling distributions. Covers much of the material on the syllabus for the first actuarial exam. Also listed as MST 357. P-MST 112 or POI. (D)

**STA 311. Statistical Inference. (3 h)**

Derivation of point estimators, hypothesis testing, and confidence intervals, using both frequentist and Bayesian approaches. P-STA 310 or MST 357 or POI. (D)

**STA 312. Linear Models. (3 h)**

Theory of estimation and testing in linear models. Topics include least squares and the normal equations, the Gauss-Markov Theorem, testing general linear hypotheses, model selection, and applications. P-MST 121 or 205, and STA 310 or MST 357. (D)

**STA 352. Networks: Models and Analysis. (3 h)**

A course in fundamental network theory concepts, including measures of network structure, community detection, clustering, and network modelling and inference. Topics also draw from recent advances in the analysis of networks and network data, as well as applications in economics, sociology, biology, computer science, and other areas. Also listed as MST 359. P-MST 117 or MST 121 or MST 205, and one course in STA at the 200 level or above. (D)

**STA 353. Probability Models. (3 h)**

Introduction to probability models, Markov chains, Poisson processes and Markov decision processes. Applications will emphasize problems in business and management science. Also listed as MST 353. P-MST 111, and MST 121 or MST 205. (D)

**STA 362. Multivariate Statistics. (3 h)**

Multivariate and linear methods for classification, visualization, discrimination, and analysis of high dimensional data. P-STA 212 and MST 121 or MST 205, or POI. (D)

**STA 363. Introduction to Statistical Learning. (3 h)**

An introduction to supervised learning. Topics may include lasso and ridge regression, splines, generalized additive models, random forests, and support vector machines. P-STA 212 and MST 121 or 205, or POI, experience with statistical computing. (D)

**STA 364. Computational and Nonparametric Statistics. (3 h)**

Computationally intensive statistical methods. Topics include simulation, Monte Carlo integration and Markov Chain Monte Carlo, sub-sampling, and non-parametric estimation and regression. Students will make extensive use of statistical software throughout the course. P-STA 111 or STA 212, and either STA 310 or MST 357, or POI. (D)

**STA 368. Time Series and Forecasting. (3 h)**

Methods and models for time series processes and autocorrelated data. Topics include model diagnostics, ARMA models, spectral methods, computational considerations, and forecasting error. P-STA 212, and either STA 310 or MST 357, or POI. (D)

**STA 379. Advanced Topics in Statistics. (1-3 h)**

Topics in statistics not considered in regular courses or which continue study begun in regular courses. Content varies.

**STA 381. Applied Statistics Capstone. (2 h)**

Students integrate knowledge acquired throughout their degree program. Topics include developing a research plan, statistical writing, data visualization, and data ethics. Students will communicate statistical results to both technical and non-technical audiences through written reports and oral presentations. Offered fall semester. P-senior STA major.

**STA 383. Individual Study. (1-3 h)**

A course of independent study directed by a faculty adviser. By prearrangement.

**STA 391. Senior Research Capstone I. (1 h)**

Independent study or research directed by a faculty adviser by prearrangement with the adviser.

**STA 392. Senior Research Capstone II. (1 h)**

Preparation of a paper, followed by an oral presentation based upon work completed in STA 391.

## Theatre (THE)

**THE 100. Participation. (0.5 h)**

Attendance/participation in Mainstage and Studio performances and other events as established by the department. Specific attendance/participation requirements will be established at the beginning of each semester. Assignments for technical production are made through consultation with the technical and design faculty. May be repeated for credit. P-POI.

**THE 110. Introduction to Western Theatre. (3 h)**

Survey of the theory and practice of the major disciplines of Western theatre art: acting, directing, playwriting, and design. Optional lab-THE 110L. (D)

**THE 110L. Intro to Theatre-Lab. (1 h)**

Participation in production team on Mainstage as assigned. P or C-THE 110 or 111 and POI.

**THE 111. Introduction to Theatre. (3 h)**

Survey of the theory and practice of the major disciplines of theatre art: acting, directing, playwriting and design. Includes theatre practices from non-Western traditions. Optional lab – THE 110L. (D)

**THE 125. Basic Voice and Movement for non-Majors. (3 h)**

Introduction to basic voice and movement technique. May include topics such as breathing, healthy vocalization, articulation, vocal expressiveness and energy, alignment, tension release, kinesthetic awareness, basic anatomy. Does not count toward Major.

**THE 126. Stage Makeup. (1.5 h)**

A study of the design and application of theatrical makeup in relationship to historical period and character development.

**THE 140. Acting I. (3 h)**

Fundamental acting theory and techniques including exercises, monologues and scene work.

**THE 144. Mime. (2 h)**

An introductory study of basic mime forms. The student will gain skills and understanding of this theatrical form through practical exercises, readings, rehearsals, and performances.

**THE 145. Voice and Movement. (3 h)**

Building awareness of the actor's instrument through the development of basic vocal and physical skills, emphasizing relaxation, clarity, expressiveness, and commitment, along with spontaneity, centering, and basic technical skills. Counts toward Major. P-THE 140.

**THE 150. Introduction to Design and Production. (4 h)**

Introduction to the fundamentals of theatrical design and technology including script analysis, design development, and presentation methods. Through the lab, the student develops basic skills in theater technology. Credit not allowed for both DCE 150 and THE 150. Lab-3 hours. (D)

**THE 155. Stagecraft. (3 h)**

This introductory course focuses on contemporary materials, construction methods, and rigging practices employed in the planning, fabrication and installation of stage scenery. Emphasis on using current technologies for problem solving.

**THE 181. Acting Workshop. (1 h)**

Scene work with student directors. Pass/Fail only.

**THE 188. The Contemporary English Theatre. (1 h)**

Explores the English theatre through theatre attendance in London and other English theatre centers. Readings, lectures. Participants submit reviews of the plays and complete a journal of informal reactions to the plays, the sites and the variety of cultural differences observed. Two weeks. Offered in London before spring term. Pass/fail only. P-POI.

**THE 230. Advanced Dynamics. (3 h)**

Focus on opening and strengthening the actor's instrument by building on work done in THE 145. P-THE 145.

**THE 240. Class Act. (3 h)**

Interdisciplinary theatre class that moves dramatic literature from page to stage as students prepare and present scenes used in courses throughout the University. P-THE 140 or POI. (D)

**THE 241. Acting for the Camera. (3 h)**

Introduces the theory and practice of acting for the camera. Focused on film/video/TV acting, may also include commercials and other formats. Basic knowledge of realistic acting required. P - THE 140.

**THE 242. Performance Art. (3 h)**

This combined seminar and studio course examines the history, range and context of performance art. Through discussion and exploration, students learn techniques and approaches for exploring new relationships to body, voice, space and image, and to create original performance art works.

**THE 245. Acting II. (3 h)**

Advanced study and practice of the skills introduced in Acting I. P-THE 140 and 145. (D)

**THE 246. Period and Style. (3 h)**

Studies social customs, movement, dances, and theatrical styles relating to the performance of drama in historical settings as well as in period plays. Includes performances in class. P-THE 145 or 230 and THE 140. (D)

**THE 250. Theatrical Scene Design. (3 h)**

A study of the fundamental principles and techniques of stage design. Drafting, model building, perspective rendering, historical research, and scene painting will be emphasized. P-THE 150.

**THE 251. Costume Design. (3 h)**

Studies the fundamental principles and techniques of costume and makeup design with an emphasis on historical research in the context of the text. Explores the basics of costume rendering, materials, and costume construction. P-THE 150 or POI.

**THE 252. Lighting. (3 h)**

An exploration of the lighting designer's process from script to production. A variety of staging situations will be studied, including proscenium, thrust and arena production. P-THE 150.

**THE 253. Sound and Projections for Theatre. (3 h)**

Developing and executing sound design and projections designs for theatrical production from concept to integration into performance. Covers recording, content creation, digital editing, mixing, and playback. P - THE 150 or POI.

**THE 254. Scenic Art for Theatre. (3 h)**

Hands-on introduction to the tools and techniques employed by scenic artists for contemporary stage and film. Includes an introduction to sculpting as well as a variety of projects and exercises in decorative and figurative painting. P-THE 110 or 111 and 150, or POI.

**THE 255. History of Costume. (3 h)**

Surveys the development of clothing and fashion with emphasis on historical and cultural influences and their application to costuming art. (D)

**THE 258. Stage Management. (1.5 h)**

Examines the role of the stage manager in theatre and other venues. Consideration of approaches, philosophy, nuts and bolts. Exploration of the responsibilities of the stage manager from auditions through rehearsals, techs, and performances including extended runs and touring and the key relationships therein with director, performer, designer and producer. P-THE 110 or 111 and 150.

**THE 259. Theater Management: Principles and Practices. (3 h)**

This course reviews the development of theater management in the United States, with emphasis on the role of the producer; explores commercial and not-for-profit theater with attention to planning, personnel, and the economics of theater. Includes readings, lectures, and reports. P-THE 110 or 111. (D)

**THE 265. The English Theatre, 1660-1940. (3 h)**

Studies the major developments in the English theater from the Restoration to World War II, including the plays, playwrights, actors, audiences, theater architecture, theater management, costumes and sets. Field trips include visits to theaters, museums, and performances. Also offered in London. (D)

**THE 266. Modern English and Continental Drama and the London Stage. (3 h)**

Studies the works of major playwrights of England and Europe from 1875 to the present. May also include contemporary production of classic plays. Particular emphasis will be placed on plays which are currently being presented in London theatres. Also offered in London. Also listed as ENG 347. (D)



**THE 270. Theatre in Education. (3 h)**

Practical experience for theater and education students to work together with children in the classroom using theatre to teach core curriculum. Emphasizes methods and techniques as well as the development and implementation of creative lesson plans. Weekly public school teaching experience and seminar. Also listed as Education 223.

**THE 274. World Theatre. (3 h)**

An exploration of non-U.S. Theatre, its histories, approaches, and applications. Study may include the theatre of East Asia, the Middle East, Africa, Latin America, and contemporary Europe, as well as non-English plays in translation. (CD, D)

**THE 283. Practicum. (1-1.5 h)**

Projects under faculty supervision. May be repeated for no more than three hours. P-Permission of the department.

**THE 285. Internship in Theatre. (1-3 h)**

Internship, approved by the department, to be carried out under the supervision of a departmental faculty member, designed to meet the proposing student's needs and interests related to their study of theatre. Requirements may include an evaluative paper and public presentation. Normally one course in an appropriate sub-field is taken prior to the internship. P-POI.

**THE 290. Special Seminar. (1.5-3 h)**

The intensive study of selected topics in theater. May be repeated.

**THE 294. Individual Study. (1-3 h)**

Research and readings in an area of interest to be approved and supervised by a faculty adviser. May be taken for no more than three times for a total of not more than nine hours. P-POI.

**THE 295. Development and Performance. (1-4 h)**

An intensive experiential course designed to research and develop a theater piece resulting in performance. Focus will vary. May be repeated once for credit.

**THE 310. History of Western Theatre I. (3 h)**

Surveys of the development of Western theatre and drama through the Greek, Roman, medieval, and Renaissance theatres. Suitable for non-majors. (D)

**THE 311. History Western Theatre II. (3 h)**

Survey of Western theatre and drama including English Restoration, the eighteenth century, Romanticism, Realism, the revolts against Realism and the post-modern theatre. Suitable for non-majors. (D)

**THE 320. British Drama to 1642. (3 h)**

British drama from its beginning to 1642, exclusive of Shakespeare. Representative cycle plays, moralities, Elizabethan and Jacobean tragedies, comedies, and tragicomedies. Also listed as ENG 320.

**THE 323. Shakespeare. (3 h)**

Thirteen representative plays illustrating Shakespeare's development as a poet and dramatist. Also listed as ENG 323.

**THE 336. Restoration and Eighteenth-Century British Drama. (3 h)**

British drama from 1660 to 1780, including representative plays by Dryden, Etherege, Wycherley, Congreve, Goldsmith, and Sheridan. Also listed as ENG 336.

**THE 341. Directing I. (3 h)**

An introduction to the theory and practice of play directing. P-THE 140. C or P-THE 150.

**THE 342. Directing II. (3 h)**

Advanced study of the theory and practice of play directing. P-THE 140, 150, and 341. C or P-THE 250 or 251 or 252 or POI.

**THE 343. Studio Production. (1.5, 3 h)**

The organization, techniques and problems encountered in the production of a play for the public. May be repeated once. P - THE 150 and POI.

**THE 344. Acting Shakespeare. (3 h)**

A practical study of varying styles in interpreting and acting Shakespeare's plays from the time of the Elizabethans to the present day. P-THE 140 and 145. (D)

**THE 360. Playwriting. (3 h)**

This course will examine the elements of dramatic structure and their representations in a variety of dramatic writings. It will explore the fundamentals of playwriting through a series of writing exercises. Also listed as CRW 384.

**THE 372. Contemporary Drama. (3 h)**

The course will consider varieties of form and substance in plays and performance texts from Godot to the present. Readings will cover such playwrights as Beckett, Pinter, Stoppard, Churchill, Wertebaker, Albee, Shepard, Fornes, Mamet, Wilson, Soyinka, Fugard, and Foreman. Also listed as ENG 394.

**THE 373. Women Playwrights. (3 h)**

Examination of selected plays and/or performance texts by women. Focus varies, for example, looking at works by contemporary American women or early women dramatists such as Hrosvitha, Sor Juana, and Aphra Behn. Also listed as WGS 319. (CD)

**THE 374. Contemporary World Drama. (3 h)**

This course will consider varieties of form and substance in plays and performance texts from outside the mainstream of the Western theatrical tradition. Focus will vary, for example Asian and Asian-American playwrights or drama of the Middle East. (CD)

**THE 375. American Drama. (3 h)**

A historical overview of drama in the United States, covering such playwrights as Boucicault, Mowatt, O'Neill, Glaspell, Wilder, Williams, Miller, Hansberry, Albee, Shepard, Norman, Hwang, Vogel, Mamet, and Wilson. Also listed as ENG 375.

**THE 376. Multicultural American Drama. (3 h)**

Examines the dramatic works of playwrights from various racial and ethnic communities such as Asian American, Native American, African American, and Latino. The course will include consideration of issues, themes, style, and form. Also listed as ENG 393. (CD)

**THE 390. Special Seminar. (1-3 h)**

The intensive study of selected topics in the theater. May be repeated.

**THE 391. Special Seminar. (1-3 h)**

The intensive study of selected topics in the theater. May be repeated.

**THE 392. Special Topics in Dramatic Literature. (1-3 h)**

Intensive study of selected plays and/or performance texts.

**THE 393. Sp Top Dramatic Lit Cult Diver. (3 h)**

Intensive study of selected plays and/or performance texts, focusing on cultural differences - for instance, women playwrights, GLBT playwrights, or class-focused works. (CD)

**THE 395. Senior Seminar. (1 h)**

Preparation for further, post-graduation work and study in theatre. Highly recommended for theatre majors and minors.

**THE 399. Theatre Honors. (3 h)**

Tutorial involving intensive work in the area of special interest for qualified seniors who wish to graduate with departmental honors. P-POD.



## Washington DC Internship (WDC)

### WDC 100. Internship. (3, 6 h)

A one semester internship in government, a non-governmental organization, non-profit organization, or business, matching the individual student's interests. Part of the Wake Washington semester program.

## Women's and Gender Studies (WGS)

### WGS 101. Window on Women's, Gender and Sexual Studies. (1.5 h)

An opportunity to experience and reflect analytically in writing on the diverse cultural and intellectual life of Wake Forest, with an emphasis on women's, and gender, and sexuality studies events and topics.

### WGS 121. Feminist Leadership Project. (1.5 h)

Explores the principles of feminist leadership to deepen self-awareness about personal leadership skills and gain tools for creating feminist social change. This highly interactive class welcomes students who are new to feminist thought/activism as well as those seeking to deepen their engagement with feminism. Pass/fail only.

### WGS 122. LGBTQ Center Change Agents Leadership Project. (1.5 h)

Open to participants in the LGBTQ Center's Change Agent program. Participants will explore principles of identity development (individual and community), queer and feminist theories of leadership and change, understanding gender and sexuality as frameworks for community organizing and social change, and development and implementation of a final change related project. Pass/fail only. P-POI.

### WGS 125. Prepare. (1.5 h)

Provides students with an overview of the social, emotional, and legal issues related to sexual violence, and teaches them to design and implement educational programs on this topic. Pass/fail only.

### WGS 150. Perspectives in Gender and Sexuality. (3 h)

Introduces feminism as a lens of analysis; gender, sexuality, and other social categories as social constructs; sexism, heterosexism, and other social systems as systems of oppression; and intersectionality as a lens of analysis. Topics of the course will vary based on the instructor. (D)

### WGS 214. Gender and Sexuality in World History. (3 h)

Introduces the global and historical breadth of gender and sexual systems. Foundational and current approaches to cross-cultural historical analysis of masculinity, women's rights, and differences between LGBTQ identities and other models. Also listed as HST 114.

### WGS 221. Introduction to Women's, Gender, and Sexuality Studies. (3 h)

Introduces many of the key topics, debates, and theoretical paradigms in the field of Women's, Gender, and Sexuality Studies. Addresses questions such as: What are gender and sexuality and how do gender and sexual norms influence the lives of people in society? What is the relationship between gender and sexuality and other social categories such as race and class? What is power and how is power distributed differently according to gender, race, class, and sexuality? The course strives to train students in analytical thinking and presses them to think critically about gender and sexuality in the past, present, and future. (CD)

### WGS 222. Introduction to Sexuality Studies. (3 h)

Provides an interdisciplinary grounding in the foundations of queer culture and studies, with a critical interrogation of sex, gender, sexuality, pleasure, and embodiment in popular culture, literature, health, science, and politics. (CD)

### WGS 224. Readings in Queer Theology. (1.5 h)

This seminar-style reading course surveys classic and new works in queer theology. Queer theology transgresses dominant constructions of gender identity and sexuality; and as such, it can be seen as an expression of the Christian gospel that subverts human understandings of life, community, and the divine. The course explores biblical and Christian theological perspectives on sexuality, social constructions of sexuality, and issues such as power, marriage equality, and sexual ethics.

### WGS 230. Studies in Gender and Literature. (3 h)

Addresses ways in which gender and literacy practices intersect in various cultures and historical periods. Attention will be paid to the role of literature in formulating, subverting, or resisting gender norms. May be repeated for credit if topic differs.

### WGS 234. Sexual Revolution! Gender and Sexuality in the United States, 1950-1980. (3 h)

Examines how conflicts around gender and sexuality played out from the 1950s to the 1970s in both the popular and high culture of the time: in bestselling novels and poems as well as canonical literature, and in television as well as in experimental film. We will consider the 1950s twice: once through the art produced at that time, and then through art produced about the 1950s after mainstream gender norms had shifted.

### WGS 251. Race and Ethnic Diversity in America. (3 h)

Different race and ethnic experiences are examined through an institutional approach that examines religion, work, schooling, marriage patterns, and culture from cross-cultural perspective. Grand theoretical schemes like the "melting pot" are critiqued for their relevance in an age of new cultural expectations among the many American ethnic groups. Also listed as AES 251. (CD)

### WGS 271. Making Sense of the News Through a Feminist Lens. (1-3 h)

Inquiry into news literacy from a feminist perspective, with the intention to identify gender bias and consider questions of empowerment, exclusion, consumerism, and how to navigate the digital landscape to distinguish verified, reliable news from propaganda.

### WGS 301. Feminist Political Thought. (3 h)

Introduction to feminist thought and its implications for the study and practice of political theory. Topics include feminist critiques of the Western political tradition and schools of feminist political theory. Also listed as POL 277. (CD)

### WGS 302. Feminist Philosophy. (3 h)

Examination of feminist approaches to philosophical theorizing. Topics may include feminist critiques of the scope and methods of mainstream philosophy, feminist approaches to ethics, epistemology and philosophy of language, and feminist conceptions of the self, sexuality, and moral agency. Also listed as PHI 379. P-One PHI course or POI.

### WGS 305. Transgender History, Identity and Politics. (3 h)

Explores the experiences of and responses to transgender, gender non-conforming, and intersex (TGI) people in nineteenth- and twentieth-century America. We will examine how scientific/medical authorities, legal authorities, and everyday people have understood and responded to various kinds of gender non-conformity. Same as HST 371. (CD)

### WGS 306. Queer Public Histories. (3 h)

Explores how public history projects (oral histories, museums, archives, documentaries) document gay, lesbian, and queer communities in the U.S. Discusses how historical and contemporary LGBTQ stories have been collected and examines the various queer identities that emerge through this process. Same as HST 372.

**WGS 309. Environmentalism, the Humanities, and Gender. (3 h)**

Survey of the global spread of Environmentalism, with an emphasis on its evolution as a disciplinary field that includes eco-feminism and feminist perspectives on the environment. Topics include the investigation of women's roles in environmental history and the construction of global environmental narratives. Also listed as HMN 292.

**WGS 310. Gender, Power and Violence. (3 h)**

A research-centered study of various issues related to violence, power, and gender in American society. Emphasizes sociological analysis of competing theoretical explanations of violence with respect to race, class, gender, religion, and sexual orientation. (CD)

**WGS 318. Film Lab in Women's, Gender, and Sexuality Studies. (1.5-3 h)**

Viewing, dissecting, and analyzing films. Fosters the skills to create complex cinematic analyses and explore feminist theoretical issues related to spectatorship.

**WGS 319. Women Playwrights. (3 h)**

Examination of selected plays and/or performance texts by women. Focus varies, for example, looking at works by contemporary American women or early women dramatists such as Hrosvitha, Sor Juana, and Aphra Behn. Also listed as THE 373. (CD)

**WGS 322. Feminist, Womanist, Murjerista Theologies: Constructive Perspectives on Christian Thought. (3 h)**

Examines major topics in Christian theology from African American (womanist), Latina/Hispanic (mujerista), and queer perspectives.

**WGS 326. Telling Women's Lives: Writing about Entrepreneurs, Activists, and Thought Leaders. (3 h)**

This course will use an interdisciplinary approach to address fundamental issues of female leadership by examining recent developments in long- and short-form narratives about women (biography, essays, profiles) and employing journalistic tools to interview and write profiles of women entrepreneurs, activists, and thought leaders. Also listed as ENT 326.

**WGS 327. The Feminist Book Society. (1.5, 3 h)**

A reading course designed to introduce students to classic and contemporary feminist texts. Emphasis on close reading, discussions, and writing. May be repeated for credit if texts differ.

**WGS 329. Politics of Gender and Sexuality: Cross-Cultural Perspectives. (3 h)**

Examines cultural constructions of gender and sexuality from a cross-cultural perspective and the relationship between feminism and cultural rights activism through time. Emphasizes how varied forms of feminisms are constituted within diverse social, cultural, and economic systems. Students consider how feminists are negotiating positions at the intersection of cultural and human rights. Also listed as ANT 329.

**WGS 330. Gender and the Politics of Health. (3 h)**

Examines the intersections of gender, medicine, health, and illness, with a focus on the U.S. context. Topics include: reproduction, mental illness, breast cancer, heart disease, and HIV/AIDS, among others. We explore the following questions: How have women and men interacted differently with the field of medicine, as healers, patients, and subjects of medical research? How do social and cultural norms about gender influence the definition of illness categories? What role does medicine play in defining and enforcing the boundaries of what is considered socially acceptable in terms of gender? How does gender as a social role affect health outcomes?.

**WGS 332. Men, Masculinity and Power. (3 h)**

Offers an introduction to the burgeoning interdisciplinary field of masculinity studies. Students will explore the social, historical, and cultural construction of masculinity and male roles (as fathers, sexual and romantic partners, and workers) and how these constructions differ according to race, class, sexuality, etc. In addition, the course will examine how norms about masculinity simultaneously empower men as a group and many individual men, while also disadvantaging many individual men and regulating the behavior of all men. Students will explore possibilities for challenging hegemonic forms of masculinity and for creating new types of masculinity.

**WGS 333. Sexual Politics in the United States. (3 h)**

Explores the politics of sexuality in the United States. Drawing on feminist scholarship, queer theory, and lesbian, gay, and transgender studies, we will explore different historical and theoretical approaches to thinking about issues of power and sexuality. We will discuss sexual identities and cultures, state regulation of sexuality, sexual commerce, and cultural representations of sexuality, among other topics. Throughout we will examine how other social categories such as race, class, gender, and disability intersect with the politics of sexuality.

**WGS 345. Girls Gone Wild: A Century of Misbehavior. (3 h)**

Analyzes what made girls and women "bad" and "wild" in the twentieth-century United States, and how such judgments changed over time. Engages closely with novels, short stories, movies, comics, podcasts, and an opera with an eye to what behaviors were considered appropriate, and how they interrelated with sexual attraction, with economics, and with love. We examine the relationship between being configured as a sexual object (a recipient of desire) and a sexual subject (a possessor of desire), and come to a critical understanding of how the "proper" and "improper" forms of both were constantly in flux. We ask how race, ethnicity, and queerness interacted with hegemonic concepts of beauty and desire, and whether "masculinity" and "femininity" are necessarily attached to men and women. We read theories of sex and gender, examine concepts of projection and male hegemony, and ask how men as well as women are shaped by rules of appropriate behavior.

**WGS 346. Visual Narratives: Image, Sequence, Story. (3 h)**

Investigates the relationship of image, sequence, and story in typography, comics, woodcut novels, and photographic books, and film, as well as fiction and poetry with unusual visual elements, and then asks how these various elements offer different visual and textual expressions of sexuality. Students will conduct formalist analyses and further investigate visual narrative through creative exercises with the goal of developing an aesthetic sensibility and a technical vocabulary that enable them to discuss visual narrative with precision. Please note that some visual narratives will include graphic scenes of sexuality. Same as ENG 345.

**WGS 347. Joan Didion/Edmund White: Personal/History. (3 h)**

Examines Didion and White, two of the most important American writers of the past fifty years. Both are known for their journalism as well as their fiction, and their interest in U.S. cultural and political history, especially in terms of gender and sexuality, permeates their novels. This course analyzes three works by each author, developing themes from motherhood, sexuality, imperialism, rebellion and AIDS.

**WGS 349. Invert, Pervert, Bull Dagger, Queen: U.S. Queer Fiction in the 20th Century. (3 h)**

Explores the history of lesbians, gay men, bisexuals, the transgendered, and other queers through fiction by and about them written over the last century in the United States. We also consider biography, artifacts of popular culture, comics, drama, and film. Topics include the relationship between homosexual desire and queerness in a broad sense; LGBTQ children; biological and psychological understandings of sexual orientation; and how social construction informs sexual identity and desire.

**WGS 358. Mothers and Daughters. (3 h)**

A course that examines literature, psychology, and feminist theories on motherhood and the mother-daughter relationship.

**WGS 362. Feminism and Theatre. (3 h)**

Introduces students to the intersection of theater and feminism and experience its interdisciplinary lineage and academic interventions. Students will learn and apply feminist theory, which looks beyond the conventional theater for a continuum of performance that includes play, ritual, sport, everyday life and social roles, as well as performance art, global and intercultural performance. Engaging with various feminist theoretical approaches from radical and liberal feminism to intersectional and transnational feminism, students will be encouraged to critically examine race, class, gender, sexuality, ethnicity, and nationality expressed on and offstage.

**WGS 363. Gender and Sexuality in Contemporary Korea. (3 h)**

Examines gender and sexuality in Korean TV, film, K-pop, protests, and everyday performances, focusing on diverse socio-political issues within and beyond the Korean Peninsula. Topics include: the evolution of feminism, #metoo movement, LGBTQ cultures, sex work, aging, plastic surgery industry, postcolonial and post-Korean war conflicts, and transpacific affinities. (CD)

**WGS 364. Women of Color, Feminisms, and the Politics of Resistance in the U.S. (3 h)**

Examines historical and contemporary issues and current events affecting the lives of African American, Asian American, Latina, and Native American women. Exploring major theoretical and practical viewpoints in women's studies scholarship, the course will reveal the importance of intersectionality between race, gender, sexuality, class, and/or ethnicity in the everyday lives of multicultural women. Through arts-based civic engagement projects and activities, this course will also encourage students to formulate their own language of resistance against multiple forms of oppression. (CD)

**WGS 365. Transnational Asia and Asian American Feminism. (3 h)**

Analyzes historical, socio-political, and cultural events as well as contemporary issues structuring the lives of Asian American women and queer community. Students will learn intersectional and transnational feminist approaches to examine race, class, gender, sexuality, ethnicity, nationality, and kinship in Asian American art and activism.

**WGS 377. Special Topics. (1.5-3 h)**

Includes such women's, gender and sexuality studies topics as gender issues in the twenty-first century, critical approaches to women's issues, and the emergence of feminist thought. May be repeated for credit if topic differs.

**WGS 380. Sexuality, Law, and Power. (3 h)**

Explores a wide variety of issues related to sexual identity and orientation by looking at the ways in which the law can constrict social development as well as act as a catalyst for change. Examines how religion and popular morality shape the law and are shaped by it.

**WGS 381. Gender and the Law. (3 h)**

Examines how the law affects women's lives in a number of contexts. Considers a number of different areas, including but not limited to employment, education, family responsibilities, violence against women, and other issues affecting women's bodies, including pornography and prostitution. The class will also review a number of feminist legal theories and issues relating to the intersection of gender with race and class.

**WGS 383. Race, Gender, and the Courts. (3 h)**

Examines the impact of state and federal court cases upon the evolution of race and gender relations in the U.S. from 1789 to the present. Each case is placed within the political, economic and social historical context for the given time periods. Race includes Native Americans, African Americans, Asian Americans, and Latino Americans. This class will analyze government intervention, inaction, and creative interpretation. Same as HST 358.

**WGS 388. South Asian Women: Religion, Culture and Politics. (3 h)**

Using a feminist and post-colonial perspective, and taking into account the histories, experiences, and lives of South Asian women, this course, examines the intersection of religion, race, and gender from both a theoretical and a practical point of view. It focuses on issues of representation and identity formation, recognizing how categories such as "South Asian" and "woman" become tools for a simultaneous understanding of both culture and gender, creating a place for both oppression and empowerment. Same as REL 388.

**WGS 396. Independent Study. (1-3 h)**

Independent projects in women's, gender, and sexuality studies which either continue study begun in regular courses or develop new areas of interest. Course may be repeated, but a maximum of 3 hours may apply to the minor. By prearrangement.

**WGS 397. Public Engagement in Women's, Gender, and Sexuality Studies. (1.5, 3 h)**

An opportunity for students to engage in work and research that is shared with the broader public, either on campus or in a local community. A maximum of 3 hours may apply to the major or minor. P-POI.

**WGS 398. Theory and Practice of Women's, Gender, and Sexuality Studies. (3 h)**

Examines the major themes and terminology in Women, Gender, and Sexuality Studies, with focus on its diverse and multicultural expressions through time. Themes to be explored include schools of feminism, interlocking systems of oppression and the connection between theory and practice.

**WGS 399. Research Seminar in Women's, Gender, and Sexuality Studies. (3 h)**

A capstone, research-centered course in which students complete a significant research or creative project of their choosing situated within the field of Women's, Gender, and Sexuality Studies.

## Writing Courses (WRI)

**WRI 105. Introduction to Critical Reading and Writing. (3 h)**

Foundational course designed for students who want additional practice transitioning to college writing. Students receive training in critical reading and practice fundamentals of academic writing through frequent essays. Elective credit; does not satisfy the basic composition requirement. Not open to continuing students.

**WRI 107. Foundations in Academic Research and Writing. (3 h)**

An introduction to college-level writing through sequenced writing assignments that will guide students through the writing processes, from summary to analysis. Emphasis on critical reading, argumentative writing, and research. Summer only; elective credit; does not satisfy the basic writing requirement.

**WRI 108. Introduction to Academic Writing. (3 h)**

An introduction to academic writing for English language learners. Designed for international students whose first language is not English as they make the transition to U.S. university writing. Emphasis is placed on cultural assumptions that underlie U.S. college writing, as well as, grammar, academic phrasing, and organizational strategies.

**WRI 111. Writing Seminar. (4 h)**

A seminar that introduces students to the study and practice of college writing; discussion-based; theme-driven; writing-intensive; required conferencing.

**WRI 210. Advanced Academic Writing. (3 h)**

An advanced composition course focused on the study of academic writing. Students consider the rhetorical and linguistic features of research-based writing, examine methods of research and evidence-gathering, and analyze argumentation across fields. Enrollment limited. P - WRI 111 or exemption from WRI 111.

**WRI 212. Literary Nonfiction: Art of the Essay. (3 h)**

Reading, writing, and analysis of the essay. Consideration of the rise and evolution of various forms of the essay; inclusive of essayists from a variety of disciplines. Enrollment limited. P - WRI 111 or exemption from WRI 111.

**WRI 306. Special Topics in Rhetoric and Writing. (1.5, 3 h)**

Study of significant rhetorical or writing theories and practices focused on one area of study. May be repeated once for credit.

**WRI 307. Contemporary Theory of Rhetoric and Writing. (1.5, 3 h)**

Study of key historical developments and theories in the current field of rhetoric and writing studies since its 20th-century inception.

**WRI 310. Interaction in Language: Introduction to Written Discourse Studies. (3 h)**

Analysis of theoretical traditions in discourse studies, including Pragmatics, Analysis of Institutional Talk, Genre Analysis, and Corpus Linguistics, designed to provide students with new approaches and tools with which to question, investigate, and critique how language works in discourses that are meaningful to them.

**WRI 320. Writing in and about Science: Scientists as Writers and Writers as Scientists. (3 h)**

Reading, writing, and analysis of scholarly and popular science writing. Consideration of scientists as writers and rhetoricians, namely, the varied purposes and audiences for which scientists and science writers compose. Enrollment limited. P - WRI 111 or exemption from WRI 111.

**WRI 340. Practice in Rhetoric and Writing. (3 h)**

Training and practice in the reading and writing of expository prose. Students study the uses of rhetoric to frame arguments and marshal evidence, then learn to practice these skills in their own writing of expository prose.

**WRI 341. Writing Center Pedagogy. (3 h)**

Introduction to composition pedagogy and writing center theory and practices, with special emphases on one-to-one and small group peer tutoring techniques. The course includes classroom-based work - reading, writing, responding, discussing, and exploring instruction and consultation processes - and field experiences. Students spend a total of 20 hours observing in writing classrooms, the WFU Writing Center and/or community sites, and tutoring. Students reflect on these experiences to prepare a final researched writing project. Strongly recommended for those interested in working in the Writing Center as peer tutors.

**WRI 342. Writing Practicum. (1-3 h)**

Practical or professional experience in writing, rhetoric, and composition. Students must be supervised and mentored by a faculty adviser. Cannot be repeated.

**WRI 343. Independent Study. (1-3 h)**

Independent study with faculty guidance. By prearrangement.

**WRI 344. Magazine Writing. (3 h)**

Analysis of magazine writing and long form journalism with practice pitching, reporting and writing articles in a range of styles and of varied lengths with specific audiences in mind. Also listed as JOU 340. P - JOU 270 or POI.

**WRI 350. Writing Minor Capstone. (3 h)**

Seminar course in which students read widely in writing studies, compose new and revise previous essays, and create an e-portfolio. Required of all students wishing to graduate with an interdisciplinary writing minor.



# THE GRADUATE SCHOOL OF ARTS AND SCIENCES

## Mission of the Graduate School

The mission of the WFU Graduate School of Arts and Sciences is to train and mentor future leaders in research, teaching and innovation for serving humanity. This embodies the Graduate School's vital role as an engine of discovery that fuels the nation's scholarly and creative enterprise. The Graduate School contributes to the academic reputation of the university by educating the next generation of teachers and scholars and by providing mentors and role models for educating undergraduates. A strong graduate program also helps support faculty research and is critical for faculty recruitment and retention.

We seek to instill in our students a sense of professionalism, which includes the ethical behavior inherent in their professional role, as well as respect for their colleagues, their field, and for society as a whole. We want our students to be critical, independent thinkers and good citizens. They should be motivated to apply their scholastic efforts to enlighten and improve the wellbeing of society. Thus the Graduate School is a key link for collaboration between departments and schools and for achieving WFU's goal of becoming a collegiate university and major academic medical center.

Our values are steadfast and consist of critical thinking, service, diversity, discovery, mentoring, and ethics. These are integral to all our activities in the classroom, the laboratory or other research environments, the broader communities of which we are a part.

Our vision is for the Graduate School to be a diverse community of excellence. We achieve our vision and fulfill our mission through strategic activities that build pillars of excellence in:

- Student experience: to create an optimized learning and mentoring experience that prepares students to lead in any career path.
- Research: to provide high-quality research partnerships for promoting innovation, discovery and creation of value to the community.
- Faculty and staff support: to enable seamless, effective, aligned services for maximizing time and resources for instruction and research.
- Internal and external communication: to celebrate the prominence and value of the Graduate School and the University.

The Graduate School confers the Master of Arts, Master of Arts in Education, Master of Arts in Human Services, Master of Arts in Liberal Studies, Master of Fine Arts, and Master of Science degrees in the arts and sciences and biomedical science, and the Doctor of Philosophy degree. The Graduate School also offers a MD/MS, MD/PhD, PhD/MMS, as well as a MD/MA in bioethics jointly with the School of Medicine, and a PhD/MBA program jointly with the School of Business. In addition, the Graduate School offers an MDiv/MA in bioethics, counseling, or sustainability as well as a MDiv/MAED jointly with the School of Divinity; and a JD/MA in bioethics, religious studies or sustainability jointly with the School of Law. Certificates are offered in Bioethics, Clinical and Population Translational Science, Curriculum, Instruction, and Assessment, Data Science, Interpreting and Translation Studies, Medieval and Early Modern Studies, Structural and Computational Biophysics, and Sustainability.

## History of the Graduate School

*In accord with the prevailing custom among American colleges during the antebellum period, Wake Forest granted honorary master's degrees to selected alumni.*

By 1862, when the College closed temporarily because of the Civil War, twenty-nine such degrees had been awarded. The first announcement of a program of study leading to an earned graduate degree at Wake Forest was made in 1866. Between 1871, when the first degrees earned under the plan were awarded to John Bruce Brewer (grandson of Samuel Wait) and Franklin Hobgood, and 1951, 383 Master of Arts and Master of Science degrees were granted. In 1949 the School of Arts and Sciences discontinued admitting applicants for the Master of Arts degree because the rapid increase in the size of the undergraduate student body following World War II had overloaded the faculty. The School of Medicine did not interrupt its graduate program. The first Master of Science degree conferred by the school after it moved to Winston-Salem was awarded in 1943, and the degree was offered regularly thereafter by the departments of Anatomy, Biochemistry, Microbiology, Pharmacology, and Physiology.

During the fifteen years the College and the School of Medicine were located in different towns, the study of graduate education continued on both campuses. The self-study report adopted by the faculty of the School of Arts and Sciences immediately prior to its move to Winston-Salem recommended that graduate study leading to the Master's degree be resumed as soon as practicable. In 1958 the administration of the School of Medicine, in view of an increasing demand for graduate instruction in basic medical and clinical sciences, appointed a Committee on Graduate Studies for the purpose of reorganizing the graduate program.

As a result of these two parallel studies and in recognition of the need for an institution-wide approach to graduate education, the trustees, on January 13, 1961, established the Division of Graduate Studies and authorized it to grant the Master of Arts degree in the School of Arts and Sciences and the Master of Science and Doctor of Philosophy degrees in the School of Medicine. The first PhD degree was awarded in 1964. In 1967 the Master of Arts in Education degree was added to the graduate program in arts and sciences. A program, leading to the Master of Arts in Liberal Studies, was begun in the summer of 1987. The first PhD program on the Reynolda campus was begun in 1970.

## Administration

The Graduate School is administered by two Deans (one on each campus), and a Graduate Council composed of ex-officio administrative officials, twelve faculty members elected by the Graduate School faculty, and two graduate students elected by the Graduate Student Association. Six of the twelve are members of the College of Arts and Sciences (Reynolda campus) and six are members of the Wake Forest School of Medicine faculty (Bowman Gray campus).

## Statement of Mission and Purpose

Wake Forest is a university dedicated to the pursuit of excellence in the liberal arts and in graduate and professional education. Its distinctiveness in its pursuit of its mission derives from its private, coeducational, and residential character; its size and location; and its Baptist heritage. Each of these factors constitutes a significant aspect of the unique character of the institution.

The University is now comprised of six constituent parts: Wake Forest College, the Graduate School of Arts and Sciences, the School of Law, the



School of Medicine, the School of Business and the School of Divinity. It seeks to honor the ideals of liberal learning, which entail commitment to transmission of cultural heritages; teaching the modes of learning in the basic disciplines of human knowledge; developing critical appreciation of moral, aesthetic and religious values; advancing the frontiers of knowledge through in-depth study and research; and applying and utilizing knowledge in the service of humanity.

Wake Forest has been dedicated to the liberal arts for over a century and a half; this means education in the fundamental fields of human knowledge and achievement, as distinguished from education that is technical or narrowly vocational. It seeks to encourage habits of mind that ask “why,” that evaluate evidence, that are open to new ideas, that attempt to understand and appreciate the perspectives of others, that accept complexity and grapple with it, that admit error, and that pursue truth. Wake Forest College has by far the largest student body in the University, and its function is central to the University’s larger life. The College and the Graduate School are most singularly focused on learning for its own sake; they therefore serve as exemplars of specific academic values in the life of the University.

Beginning as early as 1894, Wake Forest accepted an obligation to provide professional training in a number of fields, as a complement to its primary mission of liberal arts education. This responsibility is fulfilled in the conviction that the humane values embodied in the liberal arts are also centrally relevant to the professions. Professional education at Wake Forest is characterized by a commitment to ethical and other professional ideals that transcend technical skills. Like the Graduate School, the professional schools are dedicated to the advancement of learning in their fields. In addition, they are specifically committed to the application of knowledge to solving concrete problems of human beings. They are strengthened by values and goals which they share with the College and Graduate School, and the professional schools enhance the work of these schools and the University as a whole by serving as models of service to humanity.

Wake Forest was founded by private initiative, and ultimate decision-making authority lies in a privately appointed Board of Trustees rather than in a public body. Funded to a large extent from private sources of support, it is determined to chart its own course in the pursuit of its goals. As a co-educational institution it seeks to “educate together” persons of both sexes and from a wide range of backgrounds—racial, ethnic, religious, geographical, socio-economic and cultural. Its residential features are conducive to learning and to the pursuit of a wide range of co-curricular activities. It has made a conscious choice to remain small in overall size; it takes pride in being able to function as a community rather than a conglomerate. Its location in the Piedmont area of North Carolina engenders an ethos that is distinctively Southern, and more specifically North Carolinian. As it seeks further to broaden its constituency and to receive national recognition, it is also finding ways to maintain the ethos associated with its regional roots.

Wake Forest is proud of its Baptist and Christian heritage. For more than a century and a half, it has provided the University an indispensable basis for its mission and purpose, enabling Wake Forest to educate thousands of ministers and lay people for enlightened leadership in their churches and communities. Far from being exclusive and parochial, this religious tradition gives the University roots that ensure its lasting identity and branches that provide a supportive environment for a wide variety of faiths. The Baptist insistence on both the separation of church and state and local autonomy has helped to protect the University from interference and domination by outside interests, whether these be commercial, governmental, or ecclesiastical. The Baptist stress upon an uncoerced

conscience in matters of religious belief has been translated into a concern for academic freedom. The Baptist emphasis upon revealed truth enables a strong religious critique of human reason, even as the claims of revelation are put under the scrutiny of reason. The character of intellectual life at Wake Forest encourages open and frank dialogue and provides assurance that the University will be ecumenical and not provincial in scope, and that it must encompass perspectives other than the Christian. Wake Forest thus seeks to maintain and invigorate what is noblest in its religious heritage.

## Nondiscrimination Statement

Wake Forest University is committed to diversity, inclusion and the spirit of its motto, *Pro Humanitate*. In adherence with applicable laws and as provided by University policies, the University prohibits discrimination in its employment practices and its educational programs and activities on the basis of race, color, religion, national origin, sex, age, sexual orientation, gender identity and expression, genetic information, disability and veteran status.

The following person has been designated to handle inquiries regarding the University’s non-discrimination policies:

Title IX Coordinator  
Section 504/ADA Coordinator  
titleixcoordinator@wfu.edu  
Reynolda Hall 307 Winston-Salem, NC 27106  
336-758-7258

Assistant Vice President Human Resources  
AskHR@wfu.edu  
2958 Reynolda Road, Winston-Salem, NC 27106  
(336)758-4700

Deputy Title IX Coordinators have also been designated and represent various University schools/divisions. Contact information for each Deputy Coordinator can be obtained from the University’s Title IX Coordinator.

Inquiries concerning the application of anti-discrimination laws may be referred to the individuals listed above or to the Office for Civil Rights, United States Department of Education. For further information on notice of non-discrimination, visit <http://wdcrobcolp01.ed.gov/CFAPPS/OCR/contactus.cfm> for the address and phone number of the U. S. Department of Education office that serves your area, or call 1-800-421-3481.

## Libraries Overview

The libraries of Wake Forest University support instruction and research at the undergraduate level and in the disciplines awarding graduate degrees. The libraries of the University hold membership in the Association of Southeastern Research Libraries.

The Wake Forest University libraries include the Z. Smith Reynolds (ZSR) Library (<https://zsr.wfu.edu/>), located on the Reynolda Campus and supports the undergraduate College, the Wake Forest School of Business, the Graduate School of Arts and Sciences, and the School of Divinity. The Law Library (<http://library.law.wfu.edu/>), housed in the Worrell Professional Center on the Reynolda Campus, serves the School of Law. The Coy C. Carpenter Library (<https://school.wakehealth.edu/Carpenter-Library/>) serves the Wake Forest School of Medicine and is located on the Bowman Gray Campus.

## Collections

The three library collections total over 2.4 million titles, including over 1.4 million e-books, more than 100,000 electronic journals and over 15,000 DVDs as well as streaming media and other formats. The ZSR Library serves as a congressionally designated selective federal depository. The Law Library holds nearly 130,000 volumes and the Coy C. Carpenter Library holds nearly 27,000 volumes. The three libraries share an online search portal, which provides access to books, electronic resources, journals and databases. Through interlibrary loan service (<https://zsr.wfu.edu/delivers/ill/>), students, faculty and staff may obtain materials from other libraries at no charge.

## Z. Smith Reynolds Library

The Z. Smith Reynolds Library (ZSR) provides comprehensive reference and research services (<https://zsr.wfu.edu/research/>) in-person and online. Research Librarians work with individual classes across the disciplines on research papers and library users can request personal research sessions (<https://zsr.wfu.edu/research/support/sessions/>) with Research Librarians at all phases of their research process. Library faculty also teach elective courses in the fundamentals of research and information literacy and upper-level courses geared towards research in the disciplines and special topics in information. The Digital Initiatives & Scholarly Communication (<https://zsr.wfu.edu/digital-scholarship/>) librarians and staff support and empower faculty scholarship through digital tools, methods, publication, and preservation.

Special Collections & Archives (SCA) (<https://zsr.wfu.edu/special/about/>) in the ZSR Library is the repository for the Baptist Historical Collection of North Carolina, Manuscripts, the Rare Book Collection, and the University Archives (<https://zsr.wfu.edu/special/collections/archives/>). The Baptist Historical Collection contains significant books, periodicals, manuscripts, and church records relating to North Carolina Baptists, as well as the personal papers of prominent ministers, educators, and government officials with ties to Wake Forest. SCA's Manuscripts include the papers of alumnus Harold Hayes (editor of *Esquire* magazine in the 1960s and 1970s) and other alumni, the Maya Angelou Film & Theater Collection, and the records of the Irish Dolmen Press. The Rare Books Collection, which includes the collections of Charles H. Babcock, Charles Lee Smith, and other donors, has collection strengths in 18th-20th century British, American, and Irish literature, African-American history and literature, and the history of material texts. SCA maintains the University Archives which serves as the primary repository for the historical records of Wake Forest University. The University Archives collects, describes, preserves, and exhibits University records (including electronic and born-digital) that contain historical, administrative, legal, or fiscal value. The records include documentation of the student experience, departmental records, and the papers of faculty. All are welcome to use the SCA collections, many of which are available online in SCA Digital Collections (<https://zsr.wfu.edu/special/collections/digital/>). Please contact [archives@wfu.edu](mailto:archives@wfu.edu) for access to the collections by appointment or submitting a specific question.

## Spaces

The Z. Smith Reynolds library has group study rooms equipped with large screen monitors and individual study carrels that can be booked online (<https://wfu.libcal.com/reserve/>). Publicly available Windows and Macintosh computers are available in the Scholars Commons, and media viewing stations are available in the Media Room. Multimedia equipment, Chromebooks, tablets, and other technology devices may be reserved for checkout. Reference (<https://zsr.wfu.edu/research/support/>) and online chat (<https://zsr.wfu.edu/chat/>) are available to help library visitors

to find resources and research assistance. The library has a 118-seat auditorium that is normally available for use by Wake Forest community groups for programs, lectures, and film screenings. For at least the fall 2021 semester, the auditorium will be used exclusively as classroom space.

ZSR houses the Information Systems Service Desk (<https://is.wfu.edu/>), the Center for the Advancement of Teaching (<https://cat.wfu.edu/>), and The Writing Center (<http://writingcenter.wfu.edu/>). The Center for the Advancement of Teaching is a resource center for Wake Forest faculty at all stages of their careers. The Writing Center provides help to guide students through their writing process.

## Access

ZSR library is committed to creating an accessible, enriching, and welcoming community space for all.

The library's hours vary by semester and can be found at [zsr.wfu.edu/calendar](https://bulletin.wfu.edu/graduate/zsr.wfu.edu/calendar/) (<https://bulletin.wfu.edu/graduate/zsr.wfu.edu/calendar/>). A room located to the right of the entrance to the library and may be accessed by keycard when the library is closed, offering access to multifunctional printers/copiers/scanners, and the library's bank of touchless smart lockers for pickup of requested materials. The study room on the left of the entrance houses the Camino Bakery (<https://dining.wfu.edu/locations/starbucks-zsr-library/>) coffeeshop. Check out the hours and events calendar (<https://zsr.wfu.edu/calendar/>) to stay up to date. See a full description of the ZSR Library resources and services at [zsr.wfu.edu](https://zsr.wfu.edu) (<https://zsr.wfu.edu/>).

## Bowman Gray Campus and Innovation Quarter

All faculty, staff and students in the Wake Forest University Graduate School of Arts and Sciences have full and unrestricted access to the Coy C. Carpenter Library of Wake Forest School of Medicine at its main facility on the first floor of the Gray Building. The Library is centrally located within the Wake Forest-affiliated hospital (Wake Forest Baptist Medical Center), and most of the resources are available online.

## Technology Information Technology / Academic Computing

Information Systems (<https://is.wfu.edu/>) supports University instruction, research, and administrative needs through computing and telecommunications services. The University's computing resources serve both academic and business needs. Wake Forest's network infrastructure includes a 10-gigabit-per-second Ethernet backbone, a mixture of 100-Megabit and 1-Gigabit-per-second switched connectivity to the desktop, and pervasive wireless connectivity in all campus buildings and select outdoor locations.

All students are given a WFU account. This account is maintained as long as the student is enrolled and provides access to networked computer resources such as electronic mail, client software packages, various courseware applications, and administrative services. Students are able to reset their forgotten password or change their expired password through a self-service password management portal, [account.wfu.edu](https://account.wfu.edu/pwm/public/) (<https://account.wfu.edu/pwm/public/>). Eduroam provides a secured WiFi network for visiting students to use their home institution's WiFi credentials to access WiFi network services. Our students can take

advantage of this service by using their Wake Forest credentials when visiting other eduroam participating institutions.

Students have the option to bring their own computer device or purchase a laptop through the WakeWare (<http://wakeware.wfu.edu>) program. WakeWare provides students the opportunity to purchase a specially selected laptop configured to run academic technology at a negotiated price, bundled with extended warranties and protection, and provided with on-campus support. WakeWare evaluates new models, as available, to offer the most up-to-date technology to our students. WakeWare (<http://wakeware.wfu.edu/>) laptops have been thoroughly tested to ensure compatibility with academic software.

The Service Desk, a service center, located on the main floor of the Z. Smith Reynolds Library provides on-campus support for all IT-related questions and assistance. The Tech Shop, located in the Service Desk, is an authorized Apple, Dell, and Lenovo ThinkPad service center. With extended Service Desk hours, the online help portal, AskDeac (<https://help.wfu.edu/>), as well as Live Chat, there are extensive options for getting IT help. In addition, the IS website (<https://is.wfu.edu/>) provides timely announcements and in depth service-related content.

All students have access to licensed software and tools, via [software@WFU](mailto:software@WFU) (<http://software.wfu.edu>), for coursework, degree projects, and research; including SPSS, a statistical package used for data analysis, forecasting, and financial modeling; Maple; and Matlab, an interactive environment for algorithm development, data visualization, and data analysis.

Students also have access to computing resources outside the University. The University is a member of:

- The Inter-University Consortium for Political and Social Research (ICPSR), located at the University of Michigan. Membership in ICPSR provides faculty and students with access to a large library of data files, including public opinion surveys, cross-cultural data, financial data, and complete census data.
- EDUCAUSE, a national consortium of colleges and universities concerned with computing issues.
- Eduroam, a global wireless network access service for research and education, accessed using Wake Forest credentials.

Information Systems maintains an extensive array of online resources, including the Wake Information Network (WIN), Banner, and more, that support University admissions, student registration, grade processing, and other academic applications.

For advanced software with high computing requirements, WFU offers cloud-based virtualization. Engineering, among other departments, utilize a performance Workspace to run software, such as AutoCAD and COMSOL, needed for their Capstone Projects. The Wake Forest University Distributed Environment for Academic Computing (DEAC) cluster, a Linux-based High Performance Computing cluster provides supercomputing services academic research and coursework. These systems are available to students 24 hours a day through the Wake Forest University Network.

Students have unlimited access and full-time support using the One Button Studio (<https://is.wfu.edu/services/one-button-studio/>), a fully automated video production facility, located in Z. Smith Reynolds Library behind the IS Service Desk. Wake Forest also has a student run Makerspace, named the WakerSpace (<https://is.wfu.edu/academic-technology/wakerspace/>). The space allows students to not only build physical projects using technology such as 3D printers, laser cutters,

and solder stations, but also to learn skills such as podcasting, knitting, sewing, and woodworking through workshop partnerships with Facilities, Information Systems, and other resources across campus. By offering both academic and non-academic programs, the WakerSpace serves a broad range of interests across campus.

Information Systems offers cable television and streaming services. All residence hall rooms are equipped with cable TV connections and/or the ability to stream cable TV. Cable and/or streaming services provide access to campus information, news, weather, select HDTV channels and DVR recording via Stream2 (<https://is.wfu.edu/services/stream2/>).

## Accreditation Recognition and Accreditation

Wake Forest University is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award baccalaureate, masters, and doctorate degrees. Contact the Commission on Colleges at 1866 Southern Lane, Decatur, Georgia, 30033-4097 or call 404-679-4500 for questions about the accreditation of Wake Forest University.

The Wake Forest School of Medicine is a member of the Association of American Medical Colleges and is fully accredited by the Liaison Committee on Medical Education, the joint accrediting body of the Association of American Medical Colleges and the American Medical Association. The Wake Forest University Physician Assistant Program is accredited by the Accreditation Review Commission on Education for the Physician Assistant Inc. (ARC-PA). For more information on the accreditation status of the program, visit the ARC-PA website ([www.arc-pa.org/Acc\\_Programs/acc\\_programs.html](http://www.arc-pa.org/Acc_Programs/acc_programs.html)) or the medical school website (<https://www.wakehealth.edu/Academic-Programs/Physician-Assistant-Program/Accreditation.htm>). The School of Law is a member of the Association of American Law Schools, the American Bar Association, and is listed as an approved school by the Council of the Section of Legal Education and Admissions to the Bar of the American Bar Association and by the Board of Law Examiners and the Council of the North Carolina State Bar. Wake Forest University School of Business are accredited by the Association to Advance Collegiate School of Business. The program in counseling leading to the Master of Arts in Education degree is accredited by the Council for the Accreditation of Counseling and Related Educational Programs. The Divinity School is accredited by the Association of Theological Schools in the United States and Canada (ATS).

Wake Forest University is a member of many of the major institutional organizations and associations at the national, regional, and statewide levels, including the following: The American Council on Education, the Association of American Colleges, the National Association of Independent Colleges and Universities, the Council of Graduate Schools in the United States, the Commission on Colleges of the Southern Association of Colleges and Schools, Oak Ridge Associated Universities, Southern Universities Conference, the North Carolina Conference of Graduate Schools, the North Carolina Association of Colleges and Universities, the North Carolina Department of Public Instruction, and the North Carolina Independent Colleges and Universities. In addition, many offices of the University are members of associations which focus on particular aspects of university administration.

### OAK RIDGE ASSOCIATED UNIVERSITIES

Since 1993, students and faculty of Wake Forest University have benefited from its membership in Oak Ridge Associated Universities (ORAU). ORAU is a consortium of ninety-eight colleges and universities

and a contractor for the U.S. Department of Energy (DOE) located in Oak Ridge, Tennessee. ORAU works with its member institutions to help their students and faculty gain access to federal research facilities throughout the country; to keep its members informed about opportunities for fellowship, scholarship, and research appointments; and to organize research alliances among its members.

Through the Oak Ridge Institute for Science and Education (ORISE), the DOE facility that ORAU operates, undergraduates, graduates, postgraduates, as well as faculty enjoy access to a multitude of opportunities for study and research. Students can participate in programs covering a wide variety of disciplines including business, earth sciences, epidemiology, engineering, physics, geological sciences, pharmacology, ocean sciences, biomedical sciences, nuclear chemistry, and mathematics. Appointment and program length range from one month to four years. Many of these programs are especially designed to increase the numbers of under-represented minority students pursuing degrees in science- and engineering-related disciplines. A comprehensive listing of these programs and other opportunities, their disciplines, and details on locations and benefits can be found at [www.ornl.gov/orise/educ.htm](http://www.ornl.gov/orise/educ.htm), or by calling the contact below.

ORAU's Office of Partnership Development seeks opportunities for partnerships and alliances among ORAU's members, private industry, and major federal facilities. Activities include faculty development programs, such as the Ralph E. Powe Junior Faculty Enhancement Awards, the Visiting Industrial Scholars Program, consortium research funding initiatives, faculty research, and support programs as well as services to chief research officers.

For more information about ORAU and its programs visit the ORAU at [www.ornl.gov](http://www.ornl.gov).

# CALENDARS

## 2021-2022 Academic Calendar

### On Campus Programs

#### Fall Semester 2021

Date	Day	Event
August 23	Monday	Classes begin
August 27	Friday	Last day to add first part-of-term classes
September 6	Monday	Last day to add full-term classes
September 8	Wednesday	Last day to drop first part-of-term classes
<b>September 10</b>	<b>Friday</b>	<b>Deadline to file statement of intent to graduate December 30</b>
September 21	Tuesday	Deadline for students with "I" grade to submit work to instructor
September 27	Monday	Last day to drop full-term classes
October 6	Wednesday	"NR" grades changed to "F" for enrolled students
October 7 - 10	Thursday - Sunday	Fall Break
October 12	Tuesday	Classes end first part-of-term
October 13	Wednesday	Classes begin second part-of-term
October 19	Tuesday	Last day to add second part-of-term classes
October 29	Friday	Last day to drop second part-of-term classes
November 1 - 12	Monday – 2 <sup>nd</sup> Friday	Registration for Spring 2022
<b>November 5</b>	<b>Friday</b>	<b>Deadline to submit thesis or dissertation to Graduate School office for review of format to graduate December 30</b>
November 24 – 28	Wednesday – Sunday	Thanksgiving Holiday
<b>December 3</b>	<b>Friday</b>	<b>Last day to defend to graduate December 30</b>
December 3	Friday	Classes end
December 6 - 11	Monday - Saturday	Final Examinations
<b>December 10</b>	<b>Friday</b>	<b>Deadline for December 30 graduation requirements including: Submit ETD Student Advisor Agreement to Graduate School office; Submit electronic thesis or dissertation to ProQuest; Submit exit survey to Graduate School office</b>
December 30	Thursday	Graduation

#### Spring Semester 2022

Date	Day	Event
January 10	Monday	Classes begin
January 14	Friday	Last day to add first part-of-term classes
January 17	Monday	MLK Holiday
January 25	Tuesday	Last day to add full-term classes
January 27	Thursday	Last day to drop first part-of-term classes
<b>February 4</b>	<b>Friday</b>	<b>Deadline to file statement of intent to graduate May 16</b>
February 8	Tuesday	Deadline for students with "I" grade to submit work to instructor
February 15	Tuesday	Last day to drop full-term classes
February 23	Wednesday	"NR" grades changed to "F" for enrolled students
February 28	Monday	Classes end first part-of-term
March 1	Tuesday	Classes begin second part-of-term
March 5 - 13	Saturday – 2 <sup>nd</sup> Sunday	Spring Break
March 14	Monday	Last day to add second part-of-term classes
TBD		Registration for Summer 2022



March 24	Thursday	Last day to drop second part-of-term classes
March 28 – April 8	Monday – 2 <sup>nd</sup> Friday	Registration for Fall 2022
<b>April 1</b>	<b>Friday</b>	<b>Deadline to submit thesis or dissertation to Graduate School office for review of format to graduate May 16</b>
April 15	Friday	Good Friday Holiday
<b>April 20</b>	<b>Wednesday</b>	<b>Last day to defend to graduate May 16</b>
April 27	Wednesday	Classes end
<b>April 27</b>	<b>Wednesday</b>	<b>Deadline for May 16 graduation requirements including: Submit ETD Student Advisor Agreement to Graduate School office; Submit electronic thesis or dissertation to ProQuest; Submit exit survey to Graduate School office</b>
April 29 - 30	Friday – Saturday	Final Examinations
May 2	Monday	Final Examinations
May 4 – 6	Wednesday – Friday	Final Examinations
May 14	Saturday	Hooding and Awards Ceremony
May 16	Monday	Commencement

## 2021 Summer Calendar (On Campus)

### Summer Session I

**May 24 – July 2, 2021**

Date	Day	Event
<b>*March 15 – May 27</b>		<b>Online Registration</b>
May 24	Monday	Classes begin
May 28	Friday	Last day to add SSI classes
May 31	Monday	Memorial Day - no classes
June 1	Tuesday	Last day to drop SSI classes
June 2	Wednesday	Last day to add full summer classes
June 5	Saturday	Classes meet
<b>June 11</b>	<b>Friday</b>	<b>Deadline to file statement of intent to graduate August 15</b>
June 12	Saturday	Classes meet
June 18	Friday	Juneteenth Holiday - no classes
June 21	Monday	Last day to drop full summer classes
June 26	Saturday	Classes meet
June 30	Wednesday	Last day of SSI classes
July 1 - 2	Thursday - Friday	Final Examinations

### Summer Session II

**July 7 – August 11, 2021**

Date	Day	Event
<b>*March 15 – May 27</b>		<b>Online Registration</b>
July 7	Wednesday	Classes begin
<b>July 9</b>	<b>Friday</b>	<b>Deadline to submit thesis to Graduate School office for review of format to graduate August 15</b>
July 13	Tuesday	Last day to add SSII classes
July 14	Wednesday	Last day to drop SSII classes
July 17	Saturday	Classes meet
<b>July 28</b>	<b>Wednesday</b>	<b>Deadline to defend to graduate August 15</b>
July 31	Saturday	Classes meet
<b>August 4</b>	<b>Wednesday</b>	<b>Deadline for August 15 graduation requirements including: Submit ETD Student Advisor Agreement to Graduate School office; Submit electronic thesis or dissertation; Submit exit survey to Graduate School office</b>

August 7	Saturday	Classes meet
August 9	Monday	Last day of classes
August 10 - 11	Tuesday - Wednesday	Final Examinations
August 15	Sunday	Graduation

## 2021-2022 Academic Calendar

### Counseling Program (Online)

#### Fall Semester 2021

Date	Day	Event
August 9-22	Monday-Sunday	Student Orientation Course for New Students
<b>August 23</b>	<b>Monday</b>	<b>First Class Day</b>
<b>August 30</b>	<b>Monday</b>	<b>Last day to add part-of-term 1 courses</b>
<b>September 6</b>	<b>Monday</b>	<b>Last day to add full semester courses</b>
September 8	Wednesday	Last day to drop without academic penalty (part-of-term 1)
September 10	Friday	Last day for withdrawal with pro rata refund (part-of-term 1) Deadline to submit intent to Graduate, December
September 27	Monday	Last day to drop without academic penalty (full semester)
October 3	Sunday	Last day for withdrawal with pro rata refund (full semester)
<b>October 10</b>	<b>Sunday</b>	<b>Last Class Day (part-of-term 1)</b>
<b>October 11</b>	<b>Monday</b>	<b>First Class Day (part-of-term 2)</b>
<b>October 18</b>	<b>Monday</b>	<b>Last day to add part-of-term 2 courses</b>
October 27	Wednesday	Last day to drop without academic penalty (part-of-term 2)
October 29	Friday	Last day for withdrawal with pro rata refund (part-of-term 2)
<b>November 22-November 28</b>	<b>Monday-Sunday</b>	<b>Thanksgiving Break</b>
<b>December 5</b>	<b>Sunday</b>	<b>Last Class Day</b>
December 9-12	Thursday-Sunday	Residency I (Cohort 24), Residency II (Cohort 21)
December 10	Friday	Deadline to meet December Graduation Requirements – including exit survey and graduation fee
December 30	Thursday	Graduation

#### Spring Semester 2022

Date	Day	Event
December 27-January 9	Monday-Sunday	Student Orientation Course for New Students
<b>January 10</b>	<b>Monday</b>	<b>First Class Day</b>
<b>January 17</b>	<b>Monday</b>	<b>Last day to add part-of-term 1 courses</b>
<b>January 24</b>	<b>Monday</b>	<b>Last day to add full semester courses</b>
January 26	Wednesday	Last day to drop without academic penalty (part-of-term 1)
January 28	Friday	Last day for withdrawal with pro rata refund (part-of-term 1)
February 4	Friday	Deadline to submit intent to Graduate, May
February 14	Monday	Last day to drop without academic penalty (full semester)
February 20	Sunday	Last day for withdrawal with pro rata refund (full semester)
<b>February 27</b>	<b>Sunday</b>	<b>Last Class Day (part-of-term 1)</b>
<b>February 28</b>	<b>Monday</b>	<b>First Class Day (part-of-term 2)</b>
<b>March 7</b>	<b>Monday</b>	<b>Last day to add part-of-term 2 courses</b>
March 7-13	Monday-Sunday	<b>Spring Break</b>

March 16	Wednesday	Last day to drop without academic penalty (part-of-term 2)
March 21	Monday	Last day for withdrawal with pro rata refund (part-of-term 2)
April 15	Friday	<b>Good Friday Observed</b>
<b>April 24</b>	<b>Sunday</b>	<b>Last Class Day</b>
April 27	Wednesday	Deadline to meet May Graduation Requirements – including exit survey and graduation fee
April 28-May 1	Thursday-Sunday	Residency I (Cohort 25), Residency II (Cohort 22)
May 14	Saturday	Hooding and Awards Ceremony
<b>May 16</b>	<b>Monday</b>	<b>Commencement</b>

## 2022 Summer Calendar

### Counseling Program (Online)

#### Summer Semester 2022

Date	Day	Event
April 18-May 1	Monday-Sunday	Student Orientation Course for New Students
<b>May 2</b>	<b>Monday</b>	<b>First Class Day</b>
<b>May 9</b>	<b>Monday</b>	<b>Last day to add part-of-term 1 courses</b>
<b>May 16</b>	<b>Monday</b>	<b>Last day to add full semester courses</b>
May 18	Wednesday	Last day to drop without academic penalty (part-of-term 1)
May 20	Friday	Last day for withdrawal with pro rata refund (part-of-term 1)
June 6	Monday	Last day to drop without academic penalty (full semester)
June 9	Thursday	Last day for withdrawal with pro rata refund (full semester)
June 10	Friday	Deadline to submit Intent to Graduate Form for August Graduation
<b>June 19</b>	<b>Sunday</b>	<b>Last Class Day (part-of-term 1)</b>
<b>June 20</b>	<b>Monday</b>	<b>First Class Day (part-of-term 2)</b>
<b>June 27</b>	<b>Monday</b>	<b>Last day to add part-of-term 2 courses</b>
July 6	Wednesday	Last day to drop without academic penalty (part-of-term 2)
July 8	Friday	Last day for withdrawal with pro rata refund (part-of-term 2)
August 3	Wednesday	Deadline to meet August Graduation Requirements - including exit survey and graduation fee
August 7	Sunday	<b>Last Class Day</b>
<b>August 15</b>	<b>Monday</b>	<b>Graduation</b>
August 11-14	Thursday-Sunday	Residency I (Cohort 26), Residency II (Cohort 23)

# PROCEDURES

*All students are responsible for familiarizing themselves with the portions of this bulletin that pertain to their course of study. Statements concerning courses and expenses are not to be regarded as irrevocable contracts between the student and the institution. The university reserves the right to change the schedule of classes and the cost of instruction at any time within the student's term of residence.*

## Admissions

### How to Apply

Information on the application process, as well as a link to the online application may be found on the Graduate School's website at <http://graduate.wfu.edu/admissions> (<http://graduate.wfu.edu/admissions/>).

### Eligibility

Undergraduate seniors and graduates of accredited U.S. colleges and universities or recognized foreign institutions may apply for admission to the Graduate School. Undergraduates must complete their degree requirements prior to entering the Graduate School.

Whatever their previous academic training may have been, all applicants should have superior records. This requirement is usually interpreted as at least a B average or standing in the upper quarter of the class or both.

### Students with Disabilities

Wake Forest University will consider the application of any qualified student, regardless of disability, based on the selection criteria established by the University which includes personal and academic merit. Upon matriculation, all students will be required to meet the same standards for graduation.

The University endeavors to provide facilities which are in compliance with all laws and regulations regarding access for individuals with disabilities. Additionally, special services are available to reasonably accommodate students with disabilities. For more information on assistance for graduate students, please visit Disability Services (<https://lac.wfu.edu>).

## Admission Categories

**Regular Status in a Degree Program.** A person with a superior undergraduate record (at least a B average or upper quarter of the class and with the appropriate courses), satisfactory GRE scores, TOEFL or IELTS scores (for international students), and/or good recommendations may apply for regular admission.

**Provisional Status in a Degree Program.** Provisional admission may be granted in certain circumstances and is limited to not more than one semester of full-time study or its equivalent in part-time study.

**Unclassified Non-Degree Graduate Status.** Applicants seeking courses for graduate credit, but not wishing to formally seek a graduate degree, may apply for admission as an unclassified or non-degree seeking student. Applicants are required to complete an application, submit the application fee, meet the immunization requirements, and submit an official transcript showing a baccalaureate degree. Instructor approval is required for each course prior to enrollment.

## Classification of Admitted Students

**Full-Time Status.** A student who devotes full-time effort to a graduate program as outlined by his or her faculty committee with a minimum of 9 semester hours of coursework in fall, spring, and summer terms, including thesis research, is considered a full-time student. Students registered for Grad Fee are also considered full-time.

**Part-Time Status.** A student registered for less than the above amount of coursework is considered a part-time student. Each program will determine whether it is possible to pursue a degree on a part-time basis.

## Continuous Enrollment

Degree-seeking students must have continuous enrollment through the semester in which they graduate. Continuous enrollment may be achieved by registering for courses, including research, internship, or project hours, or by registering for Grad Fee. Failure to maintain continuous enrollment may result in a student being administratively withdrawn from the Graduate School.

## Cost of Attendance

Detailed Cost of Attendance is available for Reynolda students at: <http://grad.financialaid.wfu.edu/cost-of-attendance/>

## Tuition Schedule

Fee	Amount
Summer Session 2021	\$1,560 (per hour)
Fall 2021/Spring 2022 Sessions	Full-time tuition (minimum 9 hours) \$38,650
	Part-time tuition (per hour) \$1,560
	On-line Programs (per hour) \$1,560

## Fees

Fee	Amount
Application Fee	\$80
Audit Fee	\$150 (per hour)
Student Continuation Fee (per term)	\$150
Graduation Fee	\$175
Technology Fee (per semester, excludes on-line programs)	\$50
Wellness Fee (can be waived)	\$372

## Tuition Concession

There is a tuition concession plan for faculty and staff of the University and for the spouses of faculty and eligible staff members. If the Graduate School offers a faculty or staff member a scholarship, that scholarship is designated for tuition and the tuition concession benefit will be applied to net remaining tuition and fees after the tuition scholarship has been applied. For further information, contact the Human Resources office.

## Tuition for Courses Taken on the Bowman Gray Campus

During fall and spring terms, full-time graduate students may take graduate courses on the Bowman Gray campus without additional tuition. Summer terms are excluded.

## Student Graduation Fees

All students pay the graduation fee shown in the fee schedule during the term in which the student graduates. This is a non-refundable fee and is charged once per degree.

## University Fees

A Student Health fee of \$245/semester is charged for all full-time students, excluding on-line programs. A Technology fee of \$50/ semester is charged to all students, excluding on-line programs. A Student Wellness fee of \$186/ semester is charged to full time students, excluding on-line programs; this fee can be waived in WIN.

## Past Due Balances

A student carrying a past-due balance will be restricted from:

- Registering for future semesters
- Receiving an official transcript of academic record
- Receiving regalia and participating in the Hooding ceremony
- Receiving a diploma
- Returning from leave of absence
- Being reinstated as a student

## Financial Aid

Full-tuition scholarships, partial-tuition scholarships, fellowships, graduate assistantships, teaching assistantships, and research assistantships are available to qualified students. Assistantships and fellowships may include tuition scholarships as well as a stipend. Students receiving a stipend may be required to work up to 20 hours weekly and carry a normal course load.

Acceptance of an assistantship or fellowship carries with it the obligation to perform duties assigned by the student's department. Some students may be assigned duties outside the department of study. Unsatisfactory performance may result in the withdrawal of the stipend.

Assistantships and fellowships are potentially renewable, but the total number of years a student working toward the master's degree may not exceed two.

The residence life and housing office has a limited number of hall director and compliance advisor positions available to qualified graduate students. Interested students are urged to contact the Office of Residence Life and Housing for more information by visiting the employment section of [www.wfu.edu/housing](http://www.wfu.edu/housing) (<http://www.wfu.edu/housing/>).

The Graduate School may award educators teaching full-time in public schools or state-approved, non-public schools a one-half scholarship of the cost of part-time tuition. This policy covers only educators who have a current contract and teach either in grades kindergarten through 12th or in community college institutions.

## Student Loans

Students may submit a FAFSA to determine eligibility for the Federal Direct Unsubsidized loan program. A graduate student must be enrolled at least half-time as a degree seeking student to be considered for federal student aid. The Wake Forest University Graduate School of Arts & Sciences FAFSA school code is: E00429.

A student must be in good academic standing and must be making satisfactory academic progress toward the degree to be eligible for a student loan. Unclassified (non-degree seeking), certificate program students, and provisionally accepted students are not eligible for federal financial aid.

## Graduate School Scholarship Awards

A limited number of merit-based scholarships are available for highly qualified students. Any student interested in awards should contact their program director for additional information.

## Policy on External Compensation

A student supported on a stipend from the Graduate School, faculty grant, student fellowship, or other sources may be allowed to engage in additional compensatory work with permission from his or her advisor, provided the work does not delay or interfere with the duties required for timely completion of the degree. A student who receives a tuition scholarship may engage in outside compensatory work without approval from the Graduate School. All students will be monitored for satisfactory academic progress.

## Satisfactory Academic Progress

To determine continuing financial aid eligibility, the financial aid committee evaluates the student's satisfactory academic progress at the end of each term. The receipt of federally controlled aid requires half# time enrollment (4.5 or more hours) in a degree seeking program during the fall and spring semesters. In addition to the enrollment requirements, a minimum cumulative grade point average of 3.0 on work attempted in the Wake Forest University Graduate School of Arts and Sciences is required. Certain programs have higher academic requirements, which are communicated directly to the students by the programs. More detailed information can be found at: <https://grad.financialaid.wfu.edu/policies/>. The Dean may revoke institutionally controlled financial aid for violation of University regulations, including its Honor Code, or for violation of federal, state, or local laws.

## Enrollment and Procedures

### Student Rights and Responsibilities

The graduate faculty has adopted a formal statement regarding student rights and responsibilities. The statement is a guideline to be used by students with respect to an Honor Code which applies to both teaching and research endeavors. It also includes clearly defined procedures for the handling of student grievances should they arise. This statement may be accessed in the Student Handbook found on the Graduate School website on the following page under the heading **Rules and Policies**: <https://graduate.wfu.edu/reynolda-campus-homepage/>

### Honor Code & Grievance Procedures

The graduate faculty has adopted a formal Honor Code to provide guidance for student conduct with respect to academic pursuits. This policy may be accessed at the Graduate School website on the following page under the heading **Rules and Policies**: <https://graduate.wfu.edu/reynolda-campus-homepage/>.

The faculty liaison on the Reynolda campus is the Associate Dean for Students. The names and e-mail addresses of the faculty liaisons can be obtained from the Graduate School office or the Graduate School website on the following page under the heading **Rules and Policies**:



<https://graduate.wfu.edu/reynolda-campus-homepage/>.

## Graduate School Non-Academic Code of Conduct

The Graduate Faculty has adopted a formal policy to provide guidance for students with respect to non-academic conduct. This policy may be accessed at the Graduate School website on the following page under the heading **Rules and Policies**:

<https://graduate.wfu.edu/reynolda-campus-homepage/>.

## Patents Policy

During a student's course of study, he or she may participate in research or other work which leads to an invention or discovery. These inventions or discoveries are the property of the University. The University's Inventions and Patent Policy is applicable to student inventions with respect to the definition of inventions covered, resolution of disputes, and the division of proceeds, including the determination of the inventor(s) share of any proceeds. Under this policy, a program exists to determine patentability and commercial value of each invention. Further information can be found at the Office of Research and Sponsored Programs' website under WFU Reynolda Campus Policies <https://research.wfu.edu/office-information/policies/>.

## Copyright Policy

The Copyright Policy of Wake Forest University is intended to:

1. Encourage research and teaching by rewarding the authors of intellectual works, assisting them in implementing their ideas, and by providing a system for the encouragement of scholarship and creative activity;
2. Serve the public interest by providing means through which intellectual works may be made available to the public; and
3. Protect the rights of the University, its faculty, its staff, and its students regarding intellectual works developed at the University.

Further information can be found at the Office of Research and Sponsored Programs' website at <https://is.wfu.edu/copyright-policy/>.

## Course Registration

### Repeating a Course

A graduate student may repeat a course in which a B- or lower grade has been received. The course may be counted only one time for credit. The higher grade earned will be counted in calculation of grade point average. Both grades will appear on the transcript. In addition, federal financial aid rules dictate that federal aid can only be used twice for the same graded course.

### Adding/Dropping a Course

During the Add/Drop period, a student may drop a course without penalty or notation on the transcript. After the Add/Drop period, a student may drop a course with the approval of the Dean of the Graduate School, the program, and the student's faculty advisor. Dropped courses are not counted in determining the grade point average. Students are responsible for officially dropping courses to be eligible for a refund of tuition. Nonpayment for courses for which a student is registered or non-attendance in a registered course does not release the student from

financial obligation, nor does it result in a student being dropped from the course.

## Auditing a Course

Auditing a course consists of participation in a course without receiving a letter grade or credit hours. When space is available after registration of students enrolled for credit, others may request permission of the instructor to enter the course as auditors. No additional charge is made to full-time students; however, an audit fee is assessed for non-degree seeking students. An auditor is subject to attendance regulations and other requirements of performance established by the instructor. Although an auditor receives no credit, a notation of audit is made on the transcript.

## Transfer Credit

### Transfer of graduate credits earned at other universities

A graduate course that was completed at another college or university may be considered for transfer credit, provided that the course was taken at an accredited institution in the United States, the course was not taken as part of a previously earned degree, and the grade earned is equivalent to a B or higher. The maximum number of hours that may be transferred toward a master's degree is six and is not limited for PhD degree candidates.

### Transfer of graduate credits earned in a graduate degree program at Wake Forest University

A graduate course that was completed in another graduate or professional program may be considered for transfer, provided that the course was not counted toward the first degree and a grade of B or higher was earned. The maximum number of hours that may be transferred is six.

### Students intending to follow their mentor and enroll at Wake Forest University

A student intending to follow their mentor from another institution must apply using the standard application processes. Credits may be transferred if the criteria described for the transfer of credits earned at other universities are met, and the student has not yet advanced to candidacy. A student who has advanced to candidacy prior to enrolling at Wake Forest University should also remain a student at their current institution.

## Grading

### Grade of I

The grade of "I" (incomplete) may be assigned only when a student fails to complete the work of a course because of illness or some other emergency. If the work recorded as "I" is not completed within 30 days after the student enters his/her next semester, not counting the summer session, the grade automatically becomes "F". The instructor must report the final grade to the registrar within 45 days after the beginning of that semester. In no case is a graduate degree awarded to a student who has an "I" on record. Incomplete forms are available at <https://prod.wp.cdn.aws.wfu.edu/sites/275/2019/01/IncompleteGradePolicy.pdf>.

### Grade of NR

The grade of NR (Not Reported) must be resolved within forty-five days after the beginning of the student's next enrolled term or will

automatically become an F or Unsatisfactory. A degree will not be awarded to a student who has an NR on their record.

Grade of U (Unsatisfactory) in Thesis/ Dissertation Research

A student who receives a U in research may be placed on academic probation even if the student’s cumulative GPA is above 2.5. A student who receives a grade of U in research in two consecutive semesters may be dismissed from the Graduate School by the Dean upon recommendation of the program.

Minimum Grade Requirements

A student whose cumulative grade point average (GPA) falls below 2.5 may be placed on academic probation. The student will have one semester to bring their GPA to 2.5 or greater; otherwise, may be dismissed from the Graduate School by the Dean. The GPA is obtained by dividing the total number of grade points earned by the total number of hours attempted, including hours for courses in which the grade earned is an F. Satisfactory/unsatisfactory and pass/fail grades do not factor into the GPA calculation.

Grades Assigned	Grade Points
A Excellent	4.00
A-	3.67
B+	3.33
B Good	3.00
B-	2.67
C+	2.33
C Low Pass	2.00

Grades Assigned	Description
F	Failed (counted as hours attempted)
I	Incomplete (becomes passing grade or F)
P	Pass
S	Satisfactory
U	Unsatisfactory
AUD	Audit
DRP	Official Drop (not counted as hours attempted)
NC	No credit
NR	Grade not reported (becomes passing grade or F)
WD	Withdrew (not counted as hours attempted)
WP	Withdrew passing (not counted as hours attempted)
WF	Withdrew failing (not counted as hours attempted)

Individual programs may require a higher GPA than 2.5 for ongoing enrollment and is stated in their program policies. A student may be dismissed from the Graduate School by the Dean upon recommendation of the program if the student is failing to make adequate progress in research.

PhD candidates must have a GPA of 3.0 at the time of the preliminary examination. The minimum GPA required for graduation is 3.0 for awarded degrees and earned certificates.

Changes in Status  
Leave of Absence

A leave of absence allows an enrolled student to interrupt his or her studies for a compelling reason, for example, a medical condition or a personal matter. A leave of absence is defined as a temporary separation from the Graduate School. To be eligible for a leave of absence, students should be in good academic standing, fulfilling research, service and course obligations. Students must submit a Request for a Leave of Absence form to the Graduate School office. The form also requires international students to obtain approval from the International Student and Scholar Services office.

The maximum time for a leave of absence is one year and will not be granted retroactively. A student must withdraw from current registered course(s) before requesting a leave. A leave of absence is only granted between terms.

Students must submit a request to return to the Graduate School office at least one month prior to the beginning of that term. If a decision has been made not to return the student should inform the Graduate School office. Failure to petition to return will result in withdrawal and the student will need to reapply for admission.

Unless allowed by the funding agency or source supporting the student’s stipend, a student may not qualify for stipend support during a leave of absence. In all cases, the guidelines provided by the supporting agency will apply. Students are encouraged to consult the agency program officials to determine the specific guidelines governing leaves of absence.

Approved leaves automatically extend milestone deadlines by the length of the leave. This includes university and departmental requirements such as the qualifying exam deadline and prospectus deadline for PhD students, and the degree deadline. Leaves do not exempt students from meeting the residency requirement.

Students may not fulfill any degree requirements including work on a thesis, dissertation, or other degree requirements during the time on leave.

In order to facilitate communication between the student and the Graduate School, access to the campus network will be continued during the leave but will be deactivated if the student does not return.

Students must consult with their health insurance provider about the status of their policy while on leave. Students who have contracted for health insurance through the university should immediately contact the Student Health Insurance Coordinator. Health insurance is subject to federal and state laws and regulations.

Students on an approved leave are not eligible for federal financial aid, including Federal Direct Loans. In some cases, student loans may not be deferred for the entirety of a leave. Students should contact the Financial Aid office for more information.

## Accommodation for Students of Faculty who Leave the Institution

In the case where a student has advanced to candidacy, and their faculty advisor leaves the institution prior to completion of their degree, the Thesis/Dissertation Committee is responsible for recommending an appropriate plan for the completion of the degree. The plan should address the following: support of stipend and research funding (including lab space), designation of a primary mentor, and designation of a manager to carry out the plan. This plan must be submitted within six weeks of the faculty member's resignation and approved by the Dean.

In the case where a student has advanced to candidacy and chooses to leave the institution with their faculty advisor, the student will be required to register for Grad Fee until degree completion. In the case where a student has not yet advanced to candidacy and chooses to leave the institution with their faculty advisor, the student will be required to withdraw and transfer to the new institution.

## Withdrawal from the University

Students planning to withdraw must complete the withdrawal form (<https://prod.wp.cdn.aws.wfu.edu/sites/275/2017/12/Withdrawal.pdf>), which requires obtaining appropriate signatures and submission to the Graduate School office. Students who leave without following this procedure will receive a grade of F, or U if appropriate, in each course in progress. Students who were issued a Graduate School laptop are required to return it to Information Systems. Students will receive tuition refunds according to the stated schedule. Withdrawals must be approved, and students must turn in their identification card and laptop before claiming refunds. Recipients of Title IV federal financial aid should refer to the Return of Financial Aid Funds Policy and the Schedule of Adjustments for Withdrawal at <http://grad.financialaid.wfu.edu/policies/>. A student who withdraws by the drop date as established by the academic calendar will have a grade of WD (withdrawn) assigned for courses in progress. A student who withdraws after the drop date will be assigned a grade of WP (withdraw-passing) or WF (withdraw-failing) for each course in progress. The withdrawal date for a student enrolled on campus will be determined by the date of last active participation. The withdrawal date for a student enrolled in an on-line program will be determined by the last time the student participated in an online discussion or made contact with a faculty member. Simply logging into a course is not determinative of participation in the course.

## Reinstatement

A student who has withdrawn and plans to return within one academic year must request reinstatement to the Graduate School office at least one month prior to the semester in which they want to re-enter. To be reinstated the student must be in good academic standing and receive approval from the graduate program and the Dean of the Graduate School. The time spent while withdrawn will not count in the maximum time allotted for the degree. After one academic year students planning to re-enter must reapply for admission by the application deadline and must be recommended by the program and accepted by the Dean of the Graduate School.

If a student is approved for readmission within a five-year period, previous coursework may count towards the degree requirements with the recommendation of the program and the approval of the Dean. If the student re-enters after a five-year period, previous courses will not count towards the degree requirements.

## Administrative Withdrawal

A student may be administratively withdrawn under the following circumstances:

- Failure to pay tuition
- Tenure exceeds the maximum length
- Failure to maintain continuous enrollment
- Failure to attend classes or conduct research for a significant period
- Honor code determination recommends withdrawal
- Non-academic code of conduct determination recommends withdrawal

## Dismissal

A student who is failing to make satisfactory academic progress, determined based on the GPA, multiple Unsatisfactory research grades, or as determined by the program, may be dismissed from the Graduate School.

## Refunds

### Refund of Charges Policy and Return of Financial Aid Funds Policy

A student who officially withdraws or is granted continuous enrollment status during a semester may be entitled to a refund of tuition and dining charges depending on the student's date of withdrawal, and/or date of continuous enrollment status. Online Counseling and Human Services Programs are refunded according to the Refund Policy for Online Counseling & Human Services Programs.

Tuition refunds are based on the date of official withdrawal or the effective date of continuous enrollment status. Please refer to the official "Schedule of Refunds for Withdrawal or Continuous Enrollment" for the respective semester of enrollment. Refunds will be reduced by the amount of any outstanding charges on a student's account. If refunded charges leave a credit balance on the student account, the student is responsible for completing an online student refund request at (<http://finance.wfu.edu/sfs/student-refund/>) or the credit balance will remain on the student account and will be applied for future semesters. If the credit is a direct result of Title IV aid, the credit is automatically refunded to the student.

Vehicle registration fees will not be refunded unless the issued permit is returned to Transportation and Parking Services before the first day of class. Students graduating or studying abroad for spring semester may receive a prorated refund of the vehicle registration fee by returning the issued permits to the Transportation and Parking Services office.

### Fall & Spring Semesters - Schedule of Refunds for Withdrawal or Continuous Enrollment

Official Date	Tuition Refunded
Before classes begin	100% tuition (-) deposit
First week of classes	85%
Second week of classes	75%
Third week of classes	50%
Fourth week of classes	30%
Fifth week of classes	20%
After fifth week of classes	0%

## Summer Sessions I & II (6 week sessions) - Schedule of Refunds for Withdrawal or Continuous Enrollment

Official Date	Tuition Refunded
First three class days	100% tuition, less deposit
Fourth class day	75%
Fifth class day	50%
Sixth class day	25%
After sixth class day	0%

## Full Summer Session (12 week session) - Schedule of Refunds for Withdrawal or Continuous Enrollment

Official Date	Tuition Refunded
First five class days	100% tuition, less deposit
Sixth - Ninth class day	75%
Tenth - Twelfth class day	50%
Thirteenth - Fifteenth class day	25%
After fifteenth class day	0%

There are no refunds for mandatory fees after the first class day in a semester as reflected in the academic calendar.

Students are responsible for officially dropping courses to be eligible for an adjustment. Nonpayment for classes for which you are registered or non-attendance in a registered class does not release you from financial obligation and will not drop you from the class.

A student using scholarships, grants, or loans to help pay educational expenses, whose account was paid-in-full prior to withdrawal, is likely to owe the University after withdrawal. Return of Title IV funds are handled in accordance with federal law. Please refer to Wake Forest's official Refund of Charges and Return of Financial Aid Funds Policy. Students should consult the Office of Financial Aid for more information.

Tuition, fees, housing, dining and all other charges will not be refunded when a student is suspended or expelled from the University as a result of a conduct or honor code violation. Return of Title IV funds are handled in accordance with federal law.

## Pursuant to The Veterans Benefits and Transition Act of 2018

GI Bill and VR&E beneficiaries (Chapter 33 and Chapter 31 beneficiaries) may attend a course of education or training for up to 90 days from the date the beneficiary provides:

A certificate of eligibility, or a "statement of benefits" obtained from the VA's eBenefits web site, or a valid VAF 28-1905 form for Chapter 31 authorization purposes, provided that the student beneficiary provides such documentation to the appropriate VA Certifying Official no later than the first day of a course of education, and provided that the student provides any additional payment amount due that is the difference between the amount of the student's financial obligation and the anticipated amount of the VA education disbursement to Wake Forest University.

This policy allows a student to attend the course until the VA provides payment to Wake Forest University. Wake Forest University will not impose a penalty, or require the beneficiary to borrow additional funds to cover tuition and fees due to late payments from the VA.

## University Disruption Refund Policy

Circumstances may arise during a semester that cause significant disruptions to University operations and result in the University closing the campus. These circumstances include, without limitation, extreme weather, fire, natural disaster, war, labor disturbances, loss of utilities, riots or civil commotions, epidemic, pandemic, public health crisis, power of government, or any other circumstance like or unlike any circumstance mentioned above, which is beyond the reasonable control or authority of the University.

In the event of a significant disruption to University operations either:

- During a semester that results in the University closing campus for the remainder of the semester;
- At the beginning of a semester that delays or prevents the University opening campus; or
- During a semester that results in the University closing campus temporarily during the semester

The University will issue refunds for housing and dining charges and wellness and parking fees to students where applicable and according to the refund schedule below. There will be no refunds for tuition or Student Health, Student Activity, or any other fees paid by or on behalf of students. Refunds (if applicable) will be calculated at the end of the semester.

This policy applies to significant disruptions where the University closes campus. It does not apply where students officially withdraw from the University or are officially granted continuous enrollment status during a semester. Refunds, if any, in those circumstances are governed by the University's Refund of Charges Policy.

## Fall & Spring Semesters - University Disruption Refund Schedule

Number of Whole or Partial (Sunday-Saturday) Weeks When Campus is Open	Refund Percentage
0	100%
1	85%
2	78%
3	71%
4	64%
5	57%
6	50%
7	43%
8	36%
9	29%
10	22%
11	15%
12	10%
13	No Refund
14	No Refund
15	No Refund
16	No Refund

### Summer Sessions I & II (6 week sessions) - University Disruption Refund Schedule

Number of Whole or Partial (Sunday-Saturday) Weeks When Campus is Open	Refund Percentage
0	100%
1	75%
2	50%
3	25%
4	No Refund
5	No Refund
6	No Refund

### Full Summer Session (12 week session) - University Disruption Refund Schedule

Number of Whole or Partial (Sunday-Saturday) Weeks When Campus is Open	Refund Percentage
0	100%
1	85%
2	75%
3	65%
4	55%
5	45%
6	35%
7	25%
8	15%
9	No Refund
10	No Refund
11	No Refund
12	No Refund

The statements concerning expenses are given as information to prospective students. They should not be regarded as forming a contract between the student and the University. The costs of instruction and other services outlined here are those in effect on the date this material was printed. Wake Forest University may change the cost of instruction and other services at any time.



# STUDENT WELLNESS

## Student Health Service

The Student Health Service's goal is to promote and advance the health and wellbeing for all students. A physician-directed medical staff offers primary care services, urgent care, illness care, physical examinations, counseling, limited psychiatric care, allergy injections, immunizations, radiology, gynecological services, pharmacy, laboratory, sports medicine clinic, referral to specialists, and medical information and vaccinations related to travel to international destinations.

### Student Health Portal

Students now can make most appointments online through the Student Health Portal. The best way to access this portal is through the SHS website (<http://shs.wfu.edu>). This is a secure way to make appointments, view published labs, print off a copy of your immunization history on file, print receipts and securely communicate with our clinic. SHS's primary way to communicate with students will be through their student email account. We send out appointment reminders 24 hours before your appointment and send messages for you to log into the Student Health Portal to view secure messages from the clinic. Students are encouraged to make appointments to be seen at the clinic. If you choose to walk in without an appointment, you will be seen by one of our staff nurses. The nurse will evaluate you and try to get you in with a medical provider if necessary and if one is available. We cannot guarantee the availability of a medical provider if you choose to come to the clinic without an appointment.

### Medical Charges

Most services at SHS are covered by the Student Health Fee. In addition, there are discounted "fee-for-service" charges for medications, laboratory tests, observation care, procedures, and some supplies. Payment can be made by paying cash, check, Deacon One Card, Student Blue Insurance, or the charge can be transferred to the student's account in Office of Financial and Accounting Services. Each student is given a copy of the medical charges incurred on the date of service which can be used for insurance filing. Student Health Service does not participate nor do we file insurance claims on behalf of the patient.

### Radiology

New to Student Health. As a partnership with Wake Forest Baptist Medical Center, Student Health now offers on site X-rays. With this partnership Wake Forest Baptist will be able to bill your medical insurance for services. All billing will be handled by Wake Forest Baptist and the remaining portion after your insurance processes the claim will be your responsibility.

### Confidentiality

Student medical records are confidential. Medical records and information contained in the records may be shared with therapists and physicians who are involved in the student's care, and otherwise will not be released without the student's permission except as allowed by law. Students who wish to have their medical records or information released to other parties should complete a release of information form at the time of each office visit or service.

### Class Excuses

The responsibility for excusing students from class rests with the faculty. Consequently the Student Health Service does not issue "excuses"

for students. Students who are evaluated at the Health Service are encouraged to discuss their situations with their professors. A receipt documenting visits is available to students at checkout. Information concerning hospitalization and prolonged illnesses is sent, with the student's permission, to the appropriate Dean.

### Student Insurance Program

Health insurance is required as a condition of enrollment for all degree-seeking\* students at Wake Forest University. Students who demonstrate comparable coverage to WFU's health insurance plan and meet our criteria may waive the coverage provided by WFU. Information about the policy plan, process instructions and full information regarding eligibility can be found online (<http://sip.studentlife.wfu.edu/>).

### Inclement Weather

When the University is closed due to inclement weather, the Student Health Service may have limited staff and may be able to provide care only for injuries and urgent illnesses. Appointments may be rescheduled.

### Retention of Medical Records

Student medical records are retained for 10 years after the last treatment, after which time they are destroyed. Immunization records are kept longer.

\* Certain part-time students are not eligible.

### Student Health Information and Immunization Form

All new students are required to complete this form (<http://shs.wfu.edu/forms/>). It must be received by the Student Health Service before June 30 for new students entering fall semester or before January 1 for new students entering spring semester. This form (<http://shs.wfu.edu/forms/>) requires information in regard to documentation of immunizations required by the University and the State of North Carolina.

## Immunization Policy

**North Carolina State Law** (G.S. 130A-152) requires documentation of certain immunizations for students attending a North Carolina college or university. Wake Forest University adheres to the State Law, also requiring WFU students to provide documentation of immunizations. Students must submit certification of these immunizations **prior to registration**. Documentation should be on or attached to *the completed* "Health Information & Immunization form (<https://bulletin.wfu.edu/graduate/student-wellness/shs.wfu.edu/forms/>)" *provided by the Student Health Service* in order to assure correct identification of the student. Acceptable documentation is a statement signed by the appropriate official(s) having custody of the records of immunization, such as a physician, county health department director. The State statute applies to all students except those registered in off-campus courses only, attending night or weekend classes, or taking a course load of four credit hours or less.

The American College Health Association recommendations and **North Carolina State law** require certification in accordance with the following.

#### Required:

1. **Tetanus/Diphtheria/Pertussis.** Students must document **three doses** of a combined tetanus diphtheria vaccine (DTaP, Td, or Tdap) of which one must be a Tdap after May 2005.
2. **Rubeola (Measles).** Students must document **two doses** of live virus measles vaccine given at least 30 days apart, on or after their first birthday unless

- a. they were born prior to January 1, 1957 or
- b. they have documentation of a titer indicating they are immune.
3. **Rubella (German measles).** Students must document that they have had one dose of live virus vaccine on or after their first birthday unless
  - a. they have documentation of a titer indicating they are immune, or
  - b. they will be 50 years old before they enroll. History of the disease is **not** acceptable.
4. **Mumps.** Students must document **two doses** of live virus mumps vaccine given at least 30 days apart, on or after their first birthday unless
  - a. they were born before January 1, 1957 or
  - b. they have documentation of a titer indicating they are immune. History of the disease is **not** acceptable.
5. **Polio.** Students must document that they have had a total of three doses of trivalent polio vaccine if they are less than 18 years of age when they enroll. One of these doses must be after the age of four years.
6. **Hepatitis B.** Students are required to document three doses of Hepatitis B vaccine if born on or after July 1, 1994. The first and second doses must be at least 28 days apart. The third dose must be at least 56 days (or eight weeks) after the second dose and at least 16 weeks after the first dose; the third dose cannot be given any earlier than 24 weeks of age. Regardless of age Hepatitis B vaccine is recommended for all students.
7. **Tuberculosis test (PPD or TB blood test).** Required within 6 months of the University registration date for
  - a. students who may have been exposed to tuberculosis or have signs or symptoms of active tuberculosis disease or
  - b. students who have lived more than 30 days in a country other than those designated as low risk for tuberculosis by Centers for Disease Control (CDC). If the student's tuberculosis test is positive, chest x-ray results and record of treatment must be documented.
8. **Meningococcal.** CDC recommends routine vaccination with quadrivalent meningococcal conjugate vaccine at age 11 or 12 years, with a booster dose at age 16 years. For adolescents who receive their first dose at age 13-15 years, a one-time booster dose should be administered after age 16 years. Persons who receive their first dose at age 16 years do not need a booster dose.

#### Recommended:

1. **Varicella.** The two-dose series is recommended. Discuss with your health care provider.
2. **Human Papillomavirus Vaccine (HPV/Gardasil).** A three-dose series.
3. **Pneumovax.** A vaccine which prevents illness from a strain of bacteria that can cause pneumonia and death. This vaccine is recommended for individuals 19 and older who have asthma or smoke. It is also recommended for those ages 2-64 with any of the following conditions: diabetes, sickle cell disease, lung disease, cochlear implants, CSF leaks, or conditions or medication which lower resistance to infection.
4. **Hepatitis A.** A two-dose series.

**Immunizations required under North Carolina law must be documented within 30 days following registration.** After that time, students with incomplete documentation of immunizations will not be permitted to

attend classes. Please note that some series require several months for completion.

## Counseling Center

The University Counseling Center, located in 117 Reynolda Hall (Reynolda Campus), provides short-term counseling and consultation to currently enrolled Reynolda Campus students. All services are confidential, and no fees are charged to students.

The Center offers counseling for a variety of concerns including depression, anxiety, personal adjustment, disordered eating, managing stress, sexuality, and relationship issues.

The Center is open Monday-Friday from 8:30 a.m. to 5:00 p.m. whenever the University is operating. A crisis counselor is available by phone after-hours and on weekends 365 days a year by calling the University Counseling Center: 336-758-5273. For more information visit <https://counselingcenter.wfu.edu/>.

# REQUIREMENTS FOR DEGREES

## Degrees Offered

The Graduate School of Arts and Sciences offers graduate programs leading to the Master of Arts, Master of Arts in Education, Master of Arts in Human Services, Master of Fine Arts, Master of Science, and Doctor of Philosophy degrees.

## Degree Completion

Each degree requires a minimum of 30 semester credit hours. The minimum GPA required for graduation is 3.0 for awarded degrees and earned certificates. The total allowable time for completion of master's degrees must not exceed six years. The total allowable time for completion of doctoral degrees must not exceed seven years.

## Thesis/Dissertation Committee Composition

**For Master's degrees:** When required a thesis is written under the supervision of the student's advisory committee. The committee must have no fewer than three members, including the advisor from the program, a second reader from within the program who serves as the committee chair, and a third reader from outside the program or from the student's area of concentration.

**For the PhD degree:** The examining committee for the dissertation must have no fewer than five members, including the program director, or a graduate faculty member chosen by the program director, the student's advisor, another member of the department, a representative from a related area from within or outside the department, and a member from outside of the major department; this last member represents the Graduate Council and serves as the chair of the committee.

**For all degrees:** All members of the student's advisory or examining committee should be members of the graduate faculty. With the approval of the advisor, a student may recommend a person who is not on the graduate faculty to serve as a voting member. The program director or advisor must justify the participation of this person based on research, publications, and/or professional activities in an email to the Dean of the Graduate School requesting approval. This email should include the proposed committee members' curriculum vitae.

## Final Examination Assessment

The defense must take place by the stated deadline on the academic calendar, or the student will be required to register for a subsequent semester to have their degree conferred. The examination validates the work stated in the thesis/dissertation and demonstrates knowledge in the related areas. The possible committee decisions are unconditional pass, pass upon rectifying minor deficiencies, pass upon rectifying major deficiencies, and fail. If a student fails, they may be reexamined only once.

## Unconditional Pass

If all committee members agree that the student has passed unconditionally, there is consensus to pass the examination. The committee chair will sign and submit the ballot to the Graduate School office.

## Pass Upon Rectifying Minor Deficiencies

If reservations are expressed by committee members, the chair of the committee will ensure that the reservations are communicated to the student and the Dean by signing and submitting the ballot to the Graduate School office. The student and the advisor are jointly responsible for ensuring that the thesis/dissertation is modified to address the committee's reservations.

## Pass Upon Rectifying Major Deficiencies

If reservations are expressed by committee members, the chair of the committee will ensure that the reservations are communicated to the student and the Dean by signing and submitting the ballot to the Graduate School office. The student and the advisor are jointly responsible for ensuring that the thesis/dissertation is modified to address the committee's reservations.

## Fail

If, in the opinion of more than one member of the examining committee, the student has failed the examination, there is no consensus to pass. The chair of the committee will advise the student that the thesis/dissertation fails to meet the requirements of the Graduate School. The chair will ensure that the student knows the reason(s) for failure and will submit the ballot to the Graduate School office. If the student resubmits or submits a new thesis/dissertation for consideration, at least three members will be drawn from the original committee. If the modified or new thesis/dissertation fails to meet the requirements, the student will be dismissed.

## Requirements for Master's Degrees

Programs of study leading to the master's degree are offered in Bioethics, Biology, Chemistry, Communication, Computer Science, Counseling, Documentary Film, Education, English, Health and Exercise Science, Interpreting and Translation Studies, Liberal Arts Studies, Mathematics and Statistics, Physics, Psychology, Religious Studies, and Sustainability.

## Residence Requirements

In general, a minimum of one academic year of full-time work (or the equivalent in Wake Forest online instruction) is required.

## General Course Requirements

Required coursework must be taken for a grade and cannot be taken as Pass/Fail. GRAD courses cannot be used toward degree requirements. Students should consult with individual programs for specific course requirements.

## Foreign Language or Special Skills Requirement

Some programs may require students to demonstrate a reading knowledge of an appropriate foreign language or competency in one or more special skills. Students should consult with individual programs for special skills requirements.

## Admission to Degree Candidacy

A student is admitted to degree candidacy by the Dean after recommendation by the program. The student must have satisfactorily met any foreign language or special skills requirement and is expected to complete the degree requirements during the semester candidacy has been approved.

## Thesis Requirement

Students should verify with their program if a thesis is required. If applicable, six of the hours required for the degree are allocated to thesis research. Thesis research courses are graded S (Satisfactory) or U (Unsatisfactory). If a U is assigned, the course must be repeated, and an S earned before the degree can be awarded. A student who receives a grade of U in research in two semesters may be dismissed from the Graduate School upon recommendation of the program.

an S earned before the degree can be awarded. A student who receives a grade of U in research in two semesters may be dismissed from the Graduate School upon recommendation of the program.

## Requirements for the Doctor of Philosophy Degrees

Programs of study leading to the Doctor of Philosophy degree are offered in Biology, Chemistry, and Physics.

### Residence Requirement

In general, a minimum of three years of full-time study, of which at least two must be in full-time residence at the University (or the equivalent in Wake Forest online instruction) is required.

### Course Requirements and Advisory Committee

The number of required courses is not prescribed by the Graduate School. Students should consult individual programs for specific requirements. Courses required by programs cannot be taken as Pass/Fail. The advisory committee is appointed by the program director and consists of the student's advisor and a minimum of two other members of the graduate faculty.

### Foreign Language or Special Skills Requirement

Some programs may require students to demonstrate either a reading knowledge of one or more appropriate foreign languages, or competence in one or more special skills. Students should consult with individual programs for special skills requirements.

### Preliminary Examination

The preliminary examination, conducted by the program, is typically administered near the end of the student's second year and must be passed at least twelve months prior to degree completion. The examining committee must include at least three members, one of whom represents a related concentration area. The written examination(s) should cover all areas of concentration and collateral studies. There may also be an oral examination in which any faculty member invited may participate. The committee passes or fails the student and notifies the Graduate School of the results. In case of failure, the committee may recommend that the candidate be dropped from the program. A reexamination may be allowed after six months from the date of the first examination. A student may be reexamined only once. PhD candidates must have a GPA of 3.0 at the time of the preliminary examination.

### Admission to Degree Candidacy

A student is admitted to degree candidacy by the Dean after recommendation by the program. The student must have satisfactorily met any foreign language or special skills requirement and is expected to complete the degree requirements during the semester candidacy has been approved.

### Dissertation Requirement

Under the supervision of an advisor committee, the candidate prepares a dissertation embodying the results of investigative efforts in the field of concentration. Dissertation research courses are graded S (Satisfactory) or U (Unsatisfactory). If a U is assigned, the course must be repeated, and

# PROGRAMS

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## Degree Programs

- Bioethics (BIE)
  - Bioethics, MA
- Biology (BIO)
  - Biology, MS
  - Biology, PhD
- Chemistry (CHM)
  - Chemistry, MS
  - Chemistry, PhD
- Communication (COM)
  - Communication, MA
- Computer Science (CSC)
  - Computer Science, MS
- Counseling (CNS)
  - Counseling, MA
- Documentary Film Program (DOC)
  - Documentary Film, MA
  - Documentary Film, MFA
- Education (EDU)
  - Education, MAED
- English (ENG)
  - English, MA
- Health and Exercise Science (HES)
  - Health and Exercise Science, MS
- Interpreting and Translation Studies (ITS)
  - Interpreting and Translation Studies, MA
- Liberal Arts Studies (LBS)
  - Liberal Arts Studies, MA
- Mathematics and Statistics (MST/STA)
  - Mathematics and Statistics, MS
- Physics (PHY)
  - Physics, MS
  - Physics, PhD
- Psychology (PSY)
  - Psychology, MA
- Religious Studies (REL)
  - Religious Studies, MA
- Sustainability (SUS)
  - Sustainability, MA

## Dual Degrees

- Bioethics, BA/BS & MA Five Year Program
- Bioethics, JD/MA
- Bioethics, MD/MA
- Bioethics, MDiv/MA
- Computer Science, BS & MS Five Year Program
- Counseling, MDiv/MA
- Education, MDiv/MAED
- MD/PhD
- PhD/MBA
- Religious Studies, JD/MA

- Sustainability, JD/MA
- Sustainability, MDiv/MA

## Certificates

- Bioethics, Certificate
- Curriculum, Instruction, and Assessment, Certificate
- Data Science, Certificate
- Interpreting and Translation Studies, Certificates
- Medieval and Early Modern Studies, Certificate
- Structural and Computational Biophysics (SCB), Certificate
- Sustainability, Certificate

Contact information for all programs and certificates of study may be found on our website at Reynolda Campus Academic Programs and Contacts (<https://graduate.wfu.edu/reynolda-campus-academic-programs-and-contacts/>).



## Degree Programs

- Bioethics (BIE)
  - Bioethics, MA
- Biology (BIO)
  - Biology, MS
  - Biology, PhD
- Chemistry (CHM)
  - Chemistry, MS
  - Chemistry, PhD
- Communication (COM)
  - Communication, MA
- Computer Science (CSC)
  - Computer Science, MS
- Counseling (CNS)
  - Counseling, MA
- Documentary Film Program (DOC)
  - Documentary Film, MA
  - Documentary Film, MFA
- Education (EDU)
  - Education, MAED
- English (ENG)
  - English, MA
- Health and Exercise Science (HES)
  - Health and Exercise Science, MS
- Interpreting and Translation Studies (ITS)
  - Interpreting and Translation Studies, MA
- Liberal Arts Studies (LBS)
  - Liberal Arts Studies, MA
- Mathematics and Statistics (MST/STA)
  - Mathematics and Statistics, MS
- Physics (PHY)
  - Physics, MS
  - Physics, PhD
- Psychology (PSY)
  - Psychology, MA
- Religious Studies (REL)
  - Religious Studies, MA
- Sustainability (SUS)
  - Sustainability, MA

## Bioethics (BIE)

### Master of Arts

#### Overview

Bioethics provides an educational opportunity at the graduate level for current and future professionals and others throughout the country interested in bioethics, including health care providers, researchers in biomedicine and the life sciences, lawyers, and professionals in religion, health and research administration, and the biotechnology industry. The goal of the MA in Bioethics is to equip graduates to practice and teach about bioethics as integral to the work of medicine and biotechnology, health care, and the basic sciences, and to undertake exemplary bioethics-related research and scholarship. The program encompasses clinical ethics, research ethics, and health policy and administration.

The program has two characteristic emphases: *bioethics in social context*, and *bioethics and biotechnology*. First, a general emphasis on the social, cultural, and policy contexts that shape all bioethics questions and issues is visible throughout the curriculum. Although the importance of incorporating the humanities, the social sciences, and even the arts may seem obvious, this is not a component of most bioethics education elsewhere. Second, a focus on bioethics and biotechnology takes advantage of Wake Forest University's strong and growing presence in this area. Research and clinical practice in nanomedicine, genomics, pharmacogenetics, molecular and cell therapies, and the like is ongoing not only here at Wake Forest University but elsewhere in North Carolina.

The program has particular emphases without declaring particular specializations. This is in part because bioethics education is by its nature fundamentally generalist. Students receive broad exposure to ideas, discussion, scholarly literature, and experience, as well as a set of intellectual skills to be developed and practiced widely before being turned to special areas of interest.

Students are required to follow the student handbook of the school(s) through which they are enrolled. To continue in a dual or five year program, a student must remain in good academic standing with the respective School (Wake Forest College, Divinity, Law or Medicine) and the Graduate School of Arts and Sciences.

## Programs

- Bioethics, MA
- Bioethics, BA/BS & MA Five Year Program
- Bioethics, JD/MA
- Bioethics, MD/MA
- Bioethics, MDiv/MA
- Bioethics, Certificate

## Courses

### BIE 619. Concepts of Health and Disease. (2-3 h)

Concepts of health, disease and disability shape discussions in bioethics and health policy. This course examines and critically evaluates competing conceptions of health and disease. The implications of adopting different understandings of health and disease for bioethics and health policy will be explored.

### BIE 690. Special Topics. (1-3 h)

Study of bioethics topics not covered in the regular curriculum. Topics may be drawn from any theory or content area in the field of bioethics. May be repeated for a maximum of 6 hours.

### BIE 701. Historical Foundations of Bioethics. (2, 3 h)

This elective explores the origins of bioethics thought, through examination of core concepts in philosophy, moral theory, social and cultural studies and law and policy. Topics may include, for instance the ancient Greeks, Confucius, and key religious teaching on health, the civil rights movement; the history of scientific medicine; and the legal conceptualization of medical practice. This course expands and extends students' knowledge of the contemporary history of bioethics as incorporated into various aspects of their required courses.

### BIE 702. Biomedical Research Ethics. (3 h)

A historical and conceptual survey of ethical, regulatory, and policy issues in biomedical research. Emphasis will be place on research involving human subjects. Master of Arts students are required to take any 2 of the following 3 courses: Clinical Ethics, Biomedical Research Ethics, and Public Policy, Medicine, and Justice.

**BIE 703. Bioethics Theory. (3 h)**

An investigation of the main theoretical approaches to contemporary bioethics and their philosophical foundations. Each approach will be examined critically and students will explore how each approach informs analysis of contemporary issues in bioethics.

**BIE 704. Public Policy, Medicine and Justice. (3 h)**

An examination of the organization of medicine and biomedical science in the U.S. today. The relationships between scientific and medical institutions and the implementation of public policies are critically analyzed in light of the requirements of the principle of justice. Topics include conflicts of interest, broadly understood, within and between institutional and professional actors; the regulation of medical practice; access to health care; and the balance between the public good and market forces. Master of Arts students are required to successfully complete two of the following courses: BIE 702, 704, or 705.

**BIE 705. Clinical Ethics. (3 h)**

This course will focus on "ethics at the bedside" and will make extensive use of case studies. The course will begin with sessions on the role of ethics in health care, the theoretical tools of bioethics, and the relationships among law, culture, and clinical ethics. The course will then review the moral foundations of therapeutic relationships, and it will conclude with examinations of moral issues encountered in health care at the beginning and at the end of life. Master of Arts students are required to take any 2 of the following 3 courses: Clinical Ethics, Biomedical Research Ethics, and Public Policy, Medicine and Justice.

**BIE 706. Bioethics Seminar. (1-3 h)**

A seminar on bioethics topics of interest featuring Wake Forest University and invited external faculty, with additional student presentations. Participants engage with presenters and scholarly literature on a variety of aspects of bioethics, including, but not limited to, the scholarly and professional practice of bioethics, the role of empirical scholarship in bioethics and related disciplines, the relationship of bioethics to advocacy and policy, and bioethics communication and mediation. May be repeated for credit up to a maximum of 6 hours.

**BIE 707. Bioethics Seminar. (1-3 h)**

A seminar on bioethics topics of interest featuring Wake Forest University and invited external faculty, with additional student presentations. Participants engage with presenters and scholarly literature on a variety of aspects of bioethics, including, but not limited to, the scholarly and professional practice of bioethics, the role of empirical scholarship in bioethics and related disciplines, the relationship of bioethics to advocacy and policy, and bioethics communication and mediation. May be repeated for credit up to a maximum of 6 hours.

**BIE 708. Research Methods. (2 h)**

An introduction to the methods, concepts and tools used in quantitative and qualitative empirical research in bioethics. Students will develop skills in the design, conduct, interpretation, and evaluation of bioethics research.

**BIE 709. Ethics of Health Communication. (3 h)**

This course explores: 1) how the phenomena of conscience, acknowledgement, and our metaphysical desire for perfection inform the status of communication ethics; 2) how communication ethics is a necessary concern for bioethics scholars, policymakers, researchers, and others interested in assessing the ongoing debate over the benefits and burdens of biotechnology; and 3) how biotechnology influences our collective understanding of human dignity.

**BIE 710. Global Bioethics. (2, 3 h)**

A comparison of American bioethics with the views of other societies and cultures, including western and non-western perspectives and developed and developing world perspectives. Topics may include: individualism vs. the community, reproductive freedom, organ transplantation, definitions and views of death, access to medical advances, and the use of human subjects in medical research. Other issues include health disparities, justice in research, and the role of humanitarian aid in promotion of global health.

**BIE 711. Current Topics in Clinical and Biomedical Research Ethics. (2, 3 h)**

An in-depth critical examination of selected topics of current interest in clinical and research ethics. Topics are identified by staff and students. Examples of pertinent topics include human pluripotent stem cell research; assisted-reproduction; research without consent; the sale of human organs; pandemic and biodefense preparedness; synthetic body parts and transhumanism; genetic enhancement; regenerative medicine and biogerontology. May be repeated for credit up to a maximum of 6 hours.

**BIE 713. Law, Medicine, and Ethics. (2, 3 h)**

An examination of the relationships between law and medicine, including the legal regulation of medical practice, concepts of medical malpractice, medical neglect, informed consent and legal competence, confidentiality and privacy, and definitions of death. The ethical implications of the intersection of law and medicine will be critically analyzed. This course is cross listed as LAW 524.

**BIE 715. Bioethics and Religion. (2, 3 h)**

This course explores fundamental themes, methods and issues in religious bioethics. It seeks to determine the ways that religious approaches offer distinctive, complementary or overlapping perspectives with secular approaches. Specific topics will include assisted reproductive technologies, family planning and abortion, genetic therapy and enhancement, withholding life-sustaining treatment, suicide and euthanasia and justice issues in the allocation of health care resources. The course will combine lectures and discussions with analysis of cases.

**BIE 717. Ethics, Economics, and Health Policy. (3 h)**

The course examines ethical and justice aspects of social decision-making and market allocation mechanisms in the context of health care, health policy, and population health.

**BIE 721. Research Independent Study. (1-3 h)**

Students may work with a faculty member on a project of mutual interest. May be repeated for credit up to a maximum of 6 hours.

**BIE 722. Research Independent Study. (1-3 h)**

Students may work with a faculty member on a project of mutual interest. May be repeated for credit up to a maximum of 6 hours.

**BIE 723. Bioethics at the Movies. (2 h)**

A critical examination of the bioethical issues raised in selected full length feature films. The goal of this course is to increase students' ability to think critically about complex issues, paying close attention to relevant details.

**BIE 725. Health Care Law & Policy. (2, 3 h)**

This course examines the public policy and legal dimensions of the financing and regulation of health care delivery. Its focus is on how medical institutions (hospitals, insurers, HMOs) are structured and regulated, and how these institutions relate to their physicians and patients. Ongoing debate over health care reform is a main focus. The dominant theme is how law shapes and responds to the rapid economic and structural changes that are taking place in the health care sector. This course is cross-listed as Law 525.

**BIE 727. Perform Case Studies Bioethics. (2-3 h)**

Students will develop a bioethics case study and present it as a dramatic reading with audience discussion at semester's end. From an initial prompt (e.g. subject matter, situation, incident) and associated readings, the work will be implemented in three phases of approximately equal length: 1) discussion and analysis of the prompt and readings; 2) student presentations of additional research, either individually or in teams, and concomitant discussion and analysis, from ethical, social, legal and policy perspectives; and 3) script (case) development during in-class writing sessions. The overarching goal is to exploit the unique ability of dramatic art to engage complex, multifaceted issues in ways that are neither nebulous nor propagandistic, and to highlight the relationship between process, close analysis, art and scholarship in bioethics.

**BIE 729. Bioethics as a Profession. (2 h)**

A critical examination of the scholarly literature both in and about bioethics. Topics may include the ethics of the profession of bioethics, controversies concerning the role of bioethics professionals, and the standards and evaluation of practitioners of bioethics.

**BIE 731. Bioethics at Work: The IRB. (1-3 h)**

Provides students with the opportunity to experience and understand human research oversight by attending Institutional Review Board (IRB) meetings, reviewing submitted protocols, and considering the ethical issues arising therein. Students assigned to a single IRB for a single semester will receive 1 credit. They will attend monthly meetings, meet periodically with course faculty and staff, and meet with IRB senior staff at the beginning and end of the semester. Students are also required to maintain and submit a journal of commentary on meetings and protocols and the ethical issues arising therein and an end of semester paper. Initial enrollment must be concurrent with enrollment in BIE 702: Biomedical Research Ethics or Law 677/BIE 777: Health Related Research. Additional credits may be earned by students who attend the meetings of more than one IRB or who continue attendance during the summer terms and/or in the fall semester. Course may be repeated up to a maximum of 3 hours. Co-requisite - BIE 702 or Law 677/BIE 777 or POI.

**BIE 733. Bioethics at Work: The Clinical Context. (1-3 h)**

This course is designed to introduce students to central clinical ethics activities in health care facilities, including ethics consultation, ethics policy development and review, and continuing education in bioethics. In addition to weekly seminar classes, students will attend meetings of the Wake Forest Baptist Medical Center Clinical Ethics Committee and its standing subcommittees and continuing education conferences in bioethics. Students will meet with a variety of health care professionals to learn about their contributions to clinical ethics, will observe the process of clinical ethics consultation at WFBMC, and will study and practice ethics consultation skills. P-BIE 705.

**BIE 737. Genetics and Bioethics. (3 h)**

An exploration of some of the ethical issues generated by the acquisition and application of knowledge about the human genome. Topics include eugenics, confidentiality, gene therapy, genetic testing of minors, genetic testing of adults, and ownership of genetic information.

**BIE 739. Neuroethics. (3 h)**

This course introduces students to basic philosophical and ethical issues in neuroethics. In this course we explore two branches of neuroethics: the ethics of neuroscience and the neuroscience of ethics. The ethics of neuroscience investigates the ethical implications of the application of neurotechnology for individuals and society, and the neuroscience of ethics attempts to answer traditional ethical questions through neuroscience. In the first half of the course, we study issues related to the ethics of neuroscience such as brain privacy (mind reading), brain manipulation, and cognitive enhancement, and in the second half we review contemporary neuroscientific results bearing on ethical issues like personal identity, free will, and the nature of normative judgments. This course is cross-listed as THS 790.

**BIE 741. Narrative and Bioethics. (3 h)**

This team-taught course provides bioethics students with an overview of the different ways in which narratives of diverse types are instrumental to bioethics thinking. Four to six faculty will teach individual course units of 2-3 sessions, addressing topics including but not limited to: illness narratives; bioethics in fiction and film; performable case studies addressing bioethics issues; the voice of the medical case presentation; narrative reading and narrative writing; bioethics in the news; and the ethics of "thick description." Involvement of multiple faculty enables critical reflection on narrative from a variety of disciplinary perspectives common to bioethics.

**BIE 757. Biotechnology Law & Policy. (2, 3 h)**

This course surveys a range of legal and public policy topics in biotechnology, such as: FDA regulation of drugs and devices, regulation of medical research, products liability, insurance coverage of pharmaceuticals, intellectual property, and genetics. This course is cross-listed with the School of Law (LAW 657).

**BIE 777. Health Related Research: Law, Regulation and Policy. (2 h)**

The course explores the regulatory framework and the policy issues that animate health-related research. Topics include public health and quality improvement research, genetic research, health-related behavioral and social science research, first-in-human trials, and international considerations. This course is cross-listed at LAW 677.

**BIE 790. Biotechnology and Ethics. (3 h)**

With the convergence of medicine, nanotechnology, computer science, molecular biology, genetic engineering, and business, biotechnologies are emerging not only as an important provider of life-saving and life-enhancing treatments but also a fast-growing and very profitable industry. This course explores some of the major ethical issues related to the current and proposed uses of biotechnologies with particular attention to the reasons and arguments that are often used to support various views on the use of biotechnology.

**BIE 791. Thesis Research. (1-6 h)**

Research directed toward fulfilling the thesis requirement. May be repeated for up to a total of 6 credits. P-POI.

**BIE 792. Thesis Research. (1-6 h)**

Research directed toward fulfilling the thesis requirement. May be repeated for up to a total of 6 credits. P-POI.

**BIE 794. Bioethics and Law. (2, 3 h)**

This course involves applying principles of bioethics in scientific and medical scenarios from the perspective of the legal system to see how the bioethics principles affect decision-making and strategy in the litigation and legislative processes. This course is interactive in nature, and involves the use of simulation and role-playing to help understand and address emerging bioethics issues in areas including informed consent, genetic testing, biomedical experimentation, and end of life decisions. This course is cross-listed as LAW 594.

**Faculty**

Program Co-Directors Nancy King and Mark Hall

**Bioethics, MA****Degree Requirements**

The degree requires 30 credit hours; 24 hours of coursework with an average grade of B or above plus 6 hours of thesis research. At least 12 of the 24 hours must be in courses numbered 700 or above. The remaining 12 hours may be in either 600 or 700 level courses. All work must be completed within six years of the date of initial enrollment in the graduate program.

For additional degree requirements, see Requirements for Degrees.

**Biology (BIO)****Master of Science, Doctor of Philosophy Overview**

The Department of Biology offers programs of study leading to the MS and PhD degrees. For admission to graduate work, the department requires an undergraduate major in the biological sciences or the equivalent, plus at least four semesters of courses in the physical sciences. Any deficiencies in these areas must be removed prior to admission to candidacy for a graduate degree.

Research opportunities include behavioral ecology, biochemistry and molecular biology, biological oceanography, biomechanics, cell biology, ecology, epigenetics, evolution, genomics, microbiology, neurobiology, physiology, population genetics, sensory biology, and systematics. For specific faculty interests and descriptions of field sites and research resources, please visit the departmental website <http://biology.wfu.edu>.

At the master's level, the department emphasizes broad training rather than narrow specialization, and combines coursework with thesis research. At the doctoral level, few specific requirements are prescribed. Individual programs are designed for each student at both levels under the guidance of the student's faculty adviser, advisory committee and departmental graduate committee. Enrollment in the graduate program is open only to students whose interests are reflected by the areas of expertise represented by the faculty. Prospective applicants are encouraged to correspond with faculty members whose areas of research interest are compatible with their own. Additional information is available from the Biology Program Director.

Study leading to the MS degree was inaugurated in 1961. The PhD degree program began in September 1970. A departmental graduate committee consisting of Biology department faculty and an appointed graduate student representative oversees all aspects of the graduate program from application review to acceptance to matriculation.

**Programs**

- Biology, MS
- Biology, PhD
- MD/PhD
- PhD/MBA
- Structural and Computational Biophysics (SCB), Certificate

**Courses****BIO 601. Topics in Biology. (1-4 h)**

Seminar and/or lecture courses in selected topics, some involving laboratory instruction. May be repeated for credit.

**BIO 602. Topics in Biology. (1-4 h)**

Seminar and/or lecture courses in selected topics, some involving laboratory instruction. May be repeated for credit.

**BIO 603. Topics in Biology. (1-4 h)**

Seminar and/or lecture courses in selected topics, some involving laboratory instruction. May be repeated for credit.

**BIO 604. Topics in Biology. (1-4 h)**

Seminar and/or lecture courses in selected topics, some involving laboratory instruction. May be repeated for credit.

**BIO 605. Topics in Biology. (1-4 h)**

Seminar and/or lecture courses in selected topics, some involving laboratory instruction. May be repeated for credit.

**BIO 607. Biophysics. (3 h)**

Introduction to the structure, dynamic behavior, and function of DNA and proteins, and survey of membrane biophysics. The physical principles of structure determination by X-ray, NMR, and optical methods are emphasized. Kim-Shapiro.

**BIO 608. Biomechanics. (3 h)**

Analyzes the relationship between organismal form and function using principles from physics and engineering. Solid and fluid mechanics are employed to study design in living systems.

**BIO 608L. Biomechanics Lab. (1 h)**

Laboratory study of biomechanics. P or C-BIO 608.

**BIO 609. Comparative Anatomy. (4 h)**

Study of the vertebrate body from an evolutionary, functional, and development perspective. Labs emphasize structure and function, primarily through the dissection of representative vertebrates.

**BIO 610. Community Ecology and Global Change. (4 h)**

An advanced ecology course covering mechanisms that determine the dynamics and distribution of plant and animal assemblages and their responses to and roles in global change. Lectures focus on ecological principles and theory. Lab includes local field trips and discussion of the primary literature. Weekend field trips to Outer Banks and mountains.

**BIO 611. Ecology & Conservation Biology of Coral Reefs. (4 h)**

In-depth study of the various biotic and abiotic components that come together to structure ecosystem function and biodiversity at all spatial scales in one of Earth's most productive and diverse environments, yet one most threatened by human use and climate change. Lab component is a one-week field trip over Spring Break.

**BIO 613. Herpetology. (4 h)**

Lecture course on the biology of reptiles and amphibians, emphasizing the unique morphological, physiological, and behavioral adaptations of both groups, and their evolutionary histories and relationships. Two local field trips are planned.



**BIO 615. Population Genetics. (3 h)**

Study of the amount and distribution of genetic variation in populations of organisms, and of how processes such as mutation, recombination, and selection affect genetic variation. Lectures present both an introduction to theoretical studies and discussion of molecular and phenotypic variation in natural populations.

**BIO 615L. Population Genetics Lab. (1 h)**

Uses computer modeling and simulation, and experiments using populations of fruit flies and other model organisms as appropriate. P or C-BIO 615.

**BIO 616. Biology of Birds. (4 h)**

Lecture plus lab course emphasizing ecological and evolutionary influences on the physiology, behavior, diversity, and population biology of birds, and case studies in conservation biology.

**BIO 617. Plant Physiology & Development. (3 h)**

Examines the growth, development, and physiological processes of plants. The control of these processes is examined on genetic, biochemical, and whole plant levels.

**BIO 617L. Plant Physiology and Development Lab. (1 h)**

Consists of structured experiments and an independently designed research project. P or C-BIO 617.

**BIO 623. Animal Behavior. (3 h)**

Survey of laboratory and field research on animal behavior.

**BIO 623L. Animal Behavior Lab. (1 h)**

Laboratory study of animal behavior. P or C-BIO 623L.

**BIO 624. Hormones and Behavior. (3 h)**

Introduction to the hormonal regulation of behavior in a broad range of animals, including humans and invertebrates. Topics include reproductive behavior, parental behavior, social behavior, sex differences, aggressive behavior, stress, mood, and the regulations of molting in insects. Fahrback.

**BIO 627. Mycology: Biology of Fungi. (4 h)**

Introduces fungi, their evolution and natural taxonomy; cell and molecular biology; genetics, mating and development; primary and secondary biochemistry; and their interactions with other organisms and the environment. Lab introduces culturing, microscopic and molecular techniques.

**BIO 628. Biology of Aging. (3 h)**

Explores mechanisms of aging, and effects of aging on cellular and physiological processes in a range of organisms.

**BIO 629. Conservation Biology. (3 h)**

Lectures, readings, and discussions examining biological resources, their limitations and methods for sustainability. Genetic, aquatic, terrestrial, and ecosystem resources will be examined.

**BIO 630. Land and Natural-Resources Management. (3 h)**

Provides a fundamental understanding of land and resource management. The major focus is on federal oversight and policies but state, local, non-profit, and international aspects are included.

**BIO 632. Microbiology. (4 h)**

Structure, function, and taxonomy of microorganisms with emphasis on bacteria. Topics include microbial ecology, industrial microbiology, and medical microbiology. Lab emphasizes microbial diversity through characterizations of isolates from nature.

**BIO 633. Vertebrates. (4 h)**

Systematic study of vertebrates, with emphasis on evolution, physiology, behavior, and ecology. Laboratory devoted to systematic, field, and experimental studies. Weigl.

**BIO 634. Parasitology. (4 h)**

Survey of protozoan, helminth, and arthropod parasites with a focus on cellular biology, life cycles, host-parasite relationships, and public health implications. Laboratory emphasizes microscopy-based techniques for examining parasite morphology and intracellular structures.

**BIO 635. Insect Biology. (4 h)**

Study of the diversity, structure, development, physiology, behavior, and ecology of insects. Conner.

**BIO 635S. Insect Biology. (4 h)**

A five-week course taught during the summer. A study of the diversity, structure, development, physiology, behavior, and ecology of one of the most diverse taxa on earth. Course location and field trip destinations to be announced each summer. P-POI. Conner.

**BIO 636. Development. (3 h)**

A study of the molecular, cellular, and anatomical aspects of embryonic development of invertebrate and vertebrate organisms.

**BIO 636L. Development Lab. (1 h)**

Laboratory study of the molecular, cellular, and anatomical aspects of embryonic development of invertebrate and vertebrate animals. P or C-BIO 636.

**BIO 638. Plant Diversity. (3 h)**

Explores the diversification of plants in the context of convergent evolution, functional processes and ecological importance.

**BIO 638L. Plant Diversity Lab. (1 h)**

Plant diversity lab. P or C-BIO 638.

**BIO 639. Principles of Biosystematics. (4 h)**

Exploration of the current theoretical and practical approaches to the study of macroevolution in plants and animals. Topics include theory and methods on constructing evolutionary trees, sources of data, and cladistic biogeography. Kron.

**BIO 640. Ecology. (4 h)**

Interrelationships among living systems and their environments, structure and dynamics of major ecosystem types, contemporary problems in ecology. Weigl.

**BIO 641. Marine Biology. (3 h)**

Introduction to the physical, chemical, and biological parameters affecting the distribution of marine organisms.

**BIO 641L. Marine Biology Lab. (1 h)**

Marine biology lab. P or C-BIO 641.

**BIO 642. Oceanography. (4 h)**

Introduces the geological, physical, chemical, and biological processes that govern the global oceans and their role in climate change. Lab focus is on tools and research questions pertinent to the field of biological oceanography.

**BIO 646. Neurobiology. (3 h)**

Introduces the structure and function of the nervous system including the neural basis of behavior.

**BIO 646L. Neurobiology Lab. (1 h)**

Laboratory emphasizing electrophysiological techniques with experiments from the cellular to the behavioral level. Students will design and complete their own projects. P or C-BIO 646.

**BIO 648. Physiological Plant Ecology. (3 h)**

Provides a fundamental understanding of how plants have adapted to the stresses of their habits, particularly in harsh or extreme environments such as deserts, the alpine, the arctic tundra, and tropical rain forests.



**BIO 648L. Physiological Plant Ecology Lab. (1 h)**

Physiological plant ecology lab. P or C-BIO 648.

**BIO 649. Tropical Biodiversity of the Amazon and Andes. (4 h)**

Intensive field course in tropical biodiversity focusing on ecosystems, natural resource management, and conservation. Students will travel to major tropical biomes in the vast tropical wildernesses of Andean and Amazonian Peru. Lectures emphasize the basic ecological principles important in each ecosystem. Field-based labs focus on student-designed projects. Offered in the summer only. POI required.

**BIO 652. Developmental Neuroscience. (4 h)**

Focuses on the development of neural structures and the plasticity of the mature nervous system. Special attention is given to experimental model systems, particularly *Drosophila melanogaster*. The labs feature molecular, immunocytochemical, and cell culture techniques for the study of neurons. Fahrback.

**BIO 653. Functional Neuroanatomy. (3 h)**

An introduction to the gross and cellular anatomical organization of the vertebrate central nervous system. Attention is given to relating structure to function, the anatomical basis of neuropathologies, and modern approaches in neuroanatomy and imaging.

**BIO 656. Ecology and Resource Management of Southeast Australia. (4 h)**

Intensive field-oriented course focusing on ecosystems, natural resource management and environmental conservation of southeastern Australia. Students travel to major biomes including sub-tropical rainforests, coral reefs, and the Australian urban environment. Labs are field-based with some consisting of study-designed field projects. Taught only in summers in Australia.

**BIO 657. Bioinspiration and Biomimetics. (3 h)**

Explores the way in which biological mechanisms can inspire new technologies, products, and businesses. The course combines basic biological and entrepreneurial principles. Also listed as ESE 657.

**BIO 658. Biogeography. (3 h)**

Study of geographic variation and distribution of organismal diversity using theoretical, historical and ecological information with specific applications to conservation and sustainability.

**BIO 658L. Biogeography Lab. (1 h)**

Introduces methods of analysis related to the study of biogeography. P or C-BIO 658.

**BIO 660. Metabolic Diseases. (3 h)**

Explores genetic and biochemical pathways in the context of inborn errors of metabolism.

**BIO 662. Immunology. (3 h)**

Study of the components and protective mechanisms of the immune system. Kuhn.

**BIO 663. Sensory Biology. (3 h)**

Lecture course that examines a variety of sensory systems. Emphasis is on sensory physiology, although other aspects of sensory systems, e.g. molecular biology and anatomy, are also covered. Silver.

**BIO 663L. Sensory Biology Lab. (1 h)**

Laboratory emphasizing electrophysiological and behavioral techniques to examine sensory systems. Students will design and complete their own projects. P or C-BIO 663.

**BIO 665. Biology of the Cell. (3 h)**

Lecture and lab course on recent advances in cell biology. Lectures emphasize analysis and interpretation of experimental data in the primary literature, focusing on topics such as the large scale architecture of the cell, targeting of macromolecules, cell-cell communication, cell signaling, and the control of cell division. The labs introduce basic techniques in cell biology and leads to an independent project. Tague.

**BIO 665L. Biology of the Cell Lab. (1 h)**

Laboratory course introducing basic techniques in cell biology, leading to an independent project. P or C-BIO 665.

**BIO 667. Virology. (3 h)**

Designed to introduce students to viruses, viral/host interactions, pathogenicity, methods of control and their use in molecular biology, including gene therapy. Curran, Lord.

**BIO 668. The Cell Biological Basis of Disease. (3 h)**

Examines defects in basic cellular mechanisms that may lead to disease.

**BIO 668L. The Cell Biological Basis of Disease Lab. (1 h)**

Lab uses advanced microscopic and histological techniques to investigate basic properties of cells. P or C-BIO 668.

**BIO 669. Cancer Biology. (3 h)**

Analysis of molecular and cellular mechanisms that transform normal cells, trigger abnormal proliferation, and lead to tumor formation. Emphasis is on the biological basis of cancer, with some exploration of clinical and social consequences.

**BIO 670. Biochemistry: Macromolecules and Metabolism. (3 h)**

Lecture course introducing the principles of biochemistry, with an emphasis on the experimental approaches that elucidated these principles. Major topics include structure, function, and biosynthesis of biological molecules, analysis of enzyme function and activity, bioenergetics, and regulation of metabolic pathways. Muday.

**BIO 670L. Biochemistry Lab. (1 h)**

Overview of biochemical approaches to study structure and function of macromolecules. Cannot receive credit for both BIO 670L and 671L. P or C-BIO 670.

**BIO 671L. Advanced Biochemistry Lab. (1 h)**

Emphasizes approaches for isolation and analysis of enzymes. Cannot receive credit for both BIO 670L and 671L. P or C-BIO 671.

**BIO 672. Advanced Molecular Biology. (3 h)**

Presents molecular mechanisms by which stored genetic information is expressed including the mechanisms for and regulation of gene expression, protein synthesis, and genome editing. Emphasizes analysis and interpretation of experimental data from the primary literature.

**BIO 672L. Advanced Molecular Biology Lab. (1 h)**

Introduces modern methods of molecular biology to analyze and manipulate expression of genes and function of gene products. P or C-BIO 672.

**BIO 674. Neuropharmacology. (3 h)**

An introduction to how pharmacological agents affect cellular and molecular functions in the nervous system of normal and disease states. Lecture and case studies will be used to examine topics including drugs targeting mood and emotion, memory and dementia, and movement disorders. Drugs of abuse and the neurological basis of addiction will also be evaluated.

**BIO 679. Introduction to Geographic Information Systems (GIS). (4 h)**

Lecture and laboratory course that introduces the concepts and uses of GIS as a mapping and analytical tool. Lectures cover the history of GIS, GIS data structures and sources of data, map projections, GIS tools, applications, and resources. Exercises include example of GIS applications in environmental modeling, socio-demographic change and site suitability analyses.

**BIO 680. Biostatistics. (3 h)**

Introduction to statistical methods used by biologists, including descriptive statistics, hypothesis testing, analysis of variance, and regression and correlation. R. Browne.

**BIO 681. Epigenetics. (3 h)**

Studies the molecular mechanisms for inheritance of genome modifications. Uses primary literature to explore the environmental and developmental signals that influence epigenetic controls of gene expression and disease.

**BIO 681L. Epigenetics Lab. (1 h)**

Provides hands-on experiences with genome editing and molecular genetics to address the function and expression of genes. P or C-BIO 681.

**BIO 682. Molecular Signaling. (3 h)**

Examines the molecular and biochemical mechanisms by which hormones, neurotransmitters, and other signaling molecules act to change growth, development, and physiological and behavioral responses of organisms with a focus on discussion of primary literature.

**BIO 683. Genomics. (3 h)**

Examines the architecture, expression, and evolution of genomes. Uses current primary literature to examine the functional and evolutionary dynamics of genomes and the modern analytic techniques used to investigate genome-wide phenomena.

**BIO 683L. Genomics Lab. (1 h)**

Introduces analytic methods and interpretation of genome wide data through practical tutorials. P or C-BIO 683.

**BIO 684. Molecular Evolution. (3 h)**

Study of the evolutionary analysis of biological sequences in population genetic and phylogenetic contexts. Explores statistical and bioinformatic techniques for investigating population evolution, molecular adaptations, and reconstruction of evolutionary history through primary literature.

**BIO 684L. Molecular Evolution Lab. (1 h)**

Introduces evolutionary analytic methods and interpretation of molecular data through practical tutorials. P or C-BIO 684.

**BIO 685. Bioinformatics. (3 h)**

Introduction to computational approaches essential to modern biological inquiry. Approaches may include large biological dataset analyses, sequence similarity and motif searches, and analysis of high-throughput genomic technologies. Emphasizes interdisciplinary interaction and communication. Also listed as CSC 685 and PHY 685.

**BIO 687. Computational Systems Biology. (3 h)**

Introduction of concepts and development of skills for comprehension of systems biology problems, including both biological and computational aspects. Topics may include genome-wide transcriptomic analysis, protein interaction networks, large-scale proteomics experiments, and computational approaches for modeling, storing, and analyzing the resulting data sets. Emphasizes interdisciplinary interaction and communication.

**BIO 688. Methods in Molecular Genetics. (4 h)**

Hybrid lecture/laboratory course gives students a hands-on introduction to a diverse array of techniques commonly used in molecular genetics laboratories.

**BIO 701. Topics in Biology. (1-4 h)**

Seminar courses in selected topics, some involving laboratory instruction. At least one offered each semester. Staff.

**BIO 702. Topics in Biology. (1-4 h)**

Seminar courses in selected topics, some involving laboratory instruction. At least one offered each semester. Staff.

**BIO 703. Topics in Biology. (1-4 h)**

Seminar courses in selected topics, some involving laboratory instruction. At least one offered each semester. Staff.

**BIO 704. Topics in Biology. (1-4 h)**

Seminar courses in selected topics, some involving laboratory instruction. At least one offered each semester. Staff.

**BIO 705. Topics in Biology. (1-4 h)**

Seminar courses in selected topics, some involving laboratory instruction. At least one offered each semester. Staff.

**BIO 706. Topics in Biology. (1-4 h)**

Seminar courses in selected topics, some involving laboratory instruction. At least one offered each semester. Staff.

**BIO 707. Topics in Biology. (1-4 h)**

Seminar courses in selected topics, some involving laboratory instruction. At least one offered each semester. Staff.

**BIO 708. Topics in Biology. (1-4 h)**

Seminar courses in selected topics, some involving laboratory instruction. At least one offered each semester. Staff.

**BIO 711. Directed Study in Biology. (1 h)**

Reading and/or laboratory problems carried out under and by permission of a faculty member. Staff.

**BIO 712. Directed Study in Biology. (1 h)**

Reading and/or laboratory problems carried out under and by permission of a faculty member. Staff.

**BIO 715. Foundations of Physiology. (1-4 h)**

Covers classical and current topics and techniques in comparative physiology. Format varies from seminar to a full laboratory course. Staff.

**BIO 716. Signal Transduction. (2 h)**

Focuses on the mechanisms of inter- and intra-cellular communications. Topics range from receptors to signaling molecules to physiological responses. Largely based on the primary literature and requires student presentation of primary research articles. C. Browne, Muday, Tague.

**BIO 717. Developmental Mechanism. (2 h)**

Seminar course examining the molecular, biochemical, and cellular mechanisms of animal and/or plant development. Relevant topics selected from the current literature are discussed in lecture and presentation formats. C. Browne, Tague, Muday.

**BIO 718. Gene Expression. (2 h)**

Seminar covers gene expression in eukaryotic and prokaryotic systems. Topics range from transcription to translation to other aspects of gene regulation. Emphasis is on the experimental basis of understanding the mechanisms of gene expression. Students present, in seminar format, appropriate papers from literature. All students participate in discussion and evaluation of presentations. Tague, C. Browne, Curran, Muday.

**BIO 725. Plant Genetics. (1, 2 h)**

Covers various aspects of plant genetics in a seminar format. Topics range from classical Mendelian genetics to genomics and bioinformatics, depending on the interests of the students. Students present the results, conclusions, and significance of appropriate papers from the literature. All students participate in discussion and evaluation of presentation. Muday, Tague.

**BIO 726. Plant Physiology. (1, 2 h)**

Covers various aspects of plant physiology and hormones in a seminar format. Topics range from auxin transport to properties of light within the leaf. Students present the results, conclusions, and significance of appropriate papers from the literature. All students participate in discussion and evaluation of presentations. Muday, Smith.

**BIO 727. Plant Evolution. (1, 2 h)**

Covers various aspects of plant evolution in a seminar format. Topics range from problems in phylogeny reconstruction and patterns of diversity to major evolutionary innovations in various plant groups. Students present the results, conclusions, and significance of appropriate papers from the literature. All students participate in discussion and evaluation of presentations. Kron, Silman.

**BIO 728. Plant Ecology. (1, 2 h)**

Covers various aspects of plant ecology in a seminar format. Topics vary depending on graduate student interest. Students present the results, conclusions, and significance of appropriate papers from the literature. All students participate in discussion and evaluation of presentations. Silman, Smith.

**BIO 735. Foundations of Evolutionary Genetics. (2 h)**

Inquiry into the fundamental concepts in genetic evolution through discussion of foundational primary literature. Topics explored include population genetic processes, speciation and extinction.

**BIO 740. Physiological Ecology. (4 h)**

Introduction to evolutionary/ecological physiology, with emphasis on the interactions between organisms and major abiotic factors of the environment including water balance-hydration, gaseous exchange-respiration, temperature tolerance-thermal physiology. Dimock.

**BIO 757. Techniques in Mathematical Biology. (3 h)**

Offers students a framework for understanding the use of mathematics in both biological theory and empirical research. Emphasis is on practical applications of mathematical techniques, and learning by doing. A central goal is to give students tools to use in their own research. Topics covered include continuous and discrete population models, matrix models, stochastic models, life-history theory, and fitting models for data. Mathematical skills are taught and refreshed, but knowledge of basic calculus is required. Silman, Anderson, Baxley.

**BIO 762. Immunology. (4 h)**

Humoral and cellular immune responses are examined to understand the basic immunobiology of vertebrates with special emphasis on cell-cell interactions and immunoregulation. Labs introduce students to basic methods in immunological research. Kuhn.

**BIO 763. Cellular and Molecular Interactions Between Hosts and Parasites. (3 h)**

Examines the responses of animal hosts in attempting to immunologically and non-immunologically reject/control both endo- and ecto-parasites and responses of these parasites to the host environment. Consists of lectures and student presentations and requires a comprehensive review article by students. Kuhn.

**BIO 767. Foundations of Ecology. (3 h)**

A graduate seminar focusing on understanding the seminal developments in the field of ecology and then tracing their intellectual impacts on the modern literature.

**BIO 775. Microscopy for the Biological Sciences. (4 h)**

An introduction to the various types of light, confocal, and electron microscopy. Students will learn technical and theoretical aspects of microscopy, methods of sample preparation, digital image acquisition and analysis and the preparation of publication quality images. The course will emphasize practical applications of microscopy, microscopy experimental design, and hands-on use of microscopes and digital imaging systems. Students will be expected to design and conduct a microscopy project and present their results to the class. Additionally, students will be expected to participate in class discussions regarding newly emerging microscopy techniques in various biological disciplines.

**BIO 777. Biophysical Ecology. (4 h)**

Designed to introduce students to the interactions of the organism with the physical environment. Sunlight, temperature, water availability and humidity, wind and longwave radiation (greenhouse effect) strongly influence an organism's growth and reproductive potential. Differences in heat and mass transfer to and from the organism, plus corresponding organism responses in structure, physiology, and behavior to changes in the local environment, are addressed. These same principles are also important to the design of energy-efficient homes (passive solar), clothing design (Gortex), outdoor survival and gardening, to name only a few of humankind's everyday activities. Smith.

**BIO 778. Advanced Ecology. (4 h)**

Covers current research in the field of ecology with a focus at the community level. Experimental design, data analysis, and interpretation are emphasized. Silman.

**BIO 779. Molecular Techniques in Evolution and Systematics. (4 h)**

Lecture and lab course that explores molecular methods that are basic to many disciplines within biology, especially ecology, evolution, and systematics. Labs focus on the acquisition of molecular techniques, including allozyme electrophoresis, mitochondrial plastid, and nuclear DNA restriction fragment length polymorphism analysis, gene amplification, PCR (polymerase chain reaction), direct and/or cycle sequencing, and RAPDS (randomly amplified polymorphic DNAs). Kron.

**BIO 780. Advanced Systematics. (3 h)**

A primary literature-based course that covers various subdisciplines within systematics including cladistic biogeography, history and theory of systematics, analytical techniques and database management of systematic data.

**BIO 781. Statistical Models and Data in R. (4 h)**

Provides an introduction to statistical modeling and data management in the R computer language. The course objectives are to introduce student to: (i) methodologies for the design and analysis of ecological and organismal experiments, (ii) programming with an emphasis on good coding and data management habits, and (iii) producing figures and reproducible workflows for publication.

**BIO 783. Teaching Skills & Instructional Development. (3 h)**

Introduction to teaching college-level science courses. Emphasis is on: defining and achieving realistic course goals; mechanics of selecting, developing and refining topics for lecture or laboratory; effective presentation strategies; and creating an active learning environment. Students develop a teaching portfolio containing course syllabi, lecture outlines, and student-ready laboratory materials. Format combines didactic lectures, individual projects, and group discussions and critiques. Course meets for two, 2-hour periods each week. D. Johnson.

**BIO 785. Teacher-Scholar Professional Development I. (1 h)**

Training in professional skills for early-career biological scientists through interactive discussion and exercises. Topics include scientific ethics and professional practices, scientific publishing, and scientific communication.

**BIO 786. Teacher-Scholar Professional Development II. (1 h)**

Training in professional skills for early-career biological scientists through interactive discussion and exercises. Topics include grant preparation and submission, professional bias and discrimination in the sciences, career paths, and job interviewing.

**BIO 789. Research Seminar. (1 h)**

Introduction to scientific presentation skills through active participation in scientific seminars and symposiums, discussion, and exercises. May be repeated for credit.

**BIO 791. Thesis Research I. (1-9 h)**

Staff.

**BIO 792. Thesis Research II. (1-9 h)**

Staff.

**BIO 891. Dissertation Research I. (1-9 h)**

Staff.

**BIO 892. Dissertation Research II. (1-9 h)**

Staff.

## Faculty

Program Director Sarah Esstman

Chair Susan E. Fahrbach

Reynolds Professor Susan E. Fahrbach

Andrew Sabin Family Foundation Presidential Chair in Conservation

Biology Miles R. Silman

Charles H. Babcock Chair of Botany William K. Smith

Charles M. Allen Professor of Biology Gloria K. Muday

Professors David J. Anderson, Miriam A. Ashley-Ross, William E. Conner,

James F. Curran, Carole L. Gibson, Eric C. Johnson, Kathleen A. Kron,

Wayne L. Silver, Clifford W. Zeyl

Associate Professors T. Michael Anderson, Sarah M. McDonald, Brian W. Tague, Ke Zhang

Assistant Professors Regina J. Cordy, Josh Currie, Sheri A. Flöge, James B. Peases

Teaching Professors A. Daniel Johnson, Pat C.W. Lord

Associate Teaching Professors Diana R. Arnett, Anna Kate Lack

## Biology, MS

### Master of Science Degree Requirements

The degree requires 30 credit hours; 24 hours of coursework with an average grade of B or above plus 6 hours of thesis research. At least 12 of the 24 hours must be in courses numbered 700 or above. The remaining 12 hours may be in either 600 or 700 level courses.

For additional degree requirements, see Requirements for Degrees.

## Biology, PhD

### Doctor of Philosophy Degree Requirements

Students have no minimum required number of course hours. Courses taken are selected in consultation with the Advisory Committee. The

degree requires an average grade of B or above, plus a minimum of 6 hours of dissertation research.

For additional degree requirements, see Requirements for Degrees.

## Chemistry (CHM)

### Master of Science, Doctor of Philosophy Overview

The Department of Chemistry offers programs of study leading to the MS and PhD degrees. Opportunities for study in courses and through research are available in analytical, biological, inorganic, organic, and physical chemistry. Research plays a major role in the graduate program. Since the number of graduate students is limited, the research program of the individual student is enhanced by close daily contact with the faculty.

All applicants for graduate work in the department are expected to offer as preparation college level fundamental courses in general, analytical, organic, inorganic, and physical chemistry; physics; and mathematics through one year of calculus. During registration all new graduate students take qualifier examinations covering the fields of analytical, biological, inorganic, organic, and physical chemistry. Programs of study are in part determined by the results of these examinations, and deficiencies are to be remedied during the student's first academic year.

For the MS degree, the student is expected to undertake a broad program of coursework at an advanced level and to complete successfully an original investigation. This investigation must be of the highest quality but necessarily limited in scope. Students who hold assistantships typically spend two years in residence for the completion of this degree.

For the PhD degree, individual programs are designed for each student under the guidance of the student's faculty adviser and advisory committee and with the approval of the graduate committee.

The University preliminary examination requirement is satisfied by successful completion of a series of written cumulative examinations and by presentation of two research proposals, one of which is the dissertation research project. Each student is to present at least one departmental seminar on the results of his or her dissertation research. The student must present a dissertation and pass an examination on it as prescribed by the Graduate School, and other University requirements must be satisfied.

The chemistry program participates in the Interdisciplinary Graduate Track in Structural and Computational Biophysics. For more information, refer to the pages in this bulletin regarding the program.

The original graduate program, which led to the MS degree, was discontinued in 1949. The present MS program was begun in 1961, the PhD in 1972.

Graduate courses offered by the Department of Chemistry are from the following list. Not all courses are offered every year.

## Programs

- Chemistry, MS
- Chemistry, PhD
- MD/PhD



- PhD/MBA
- Structural and Computational Biophysics (SCB), Certificate

## Courses

### CHM 621. Intermediate Organic Chemistry. (3 h)

Survey of advanced topics in organic chemistry including stereochemistry, conformational analysis, reaction mechanisms, organometallic chemistry and asymmetric synthesis.

### CHM 623. Organic Analysis. (4 h)

The systematic identification of organic compounds.

### CHM 624. Medicinal Chemistry. (3 h)

This course is an introduction to drug targets, mechanism, design, and synthesis. Topics of study include the review of biomolecular structure and function; druggable/targetable enzymes and signaling networks; the replisome- and transcriptome as targets; molecular and cellular pharmacology, molecular mechanism of action at the target level; drug metabolism and pharmacokinetics/pharmacodynamics. A significant portion of the course will be devoted to drug discovery, which includes design, SAR, optimization, synthetic methodologies, computer-assisted drug design; QSAR; prodrugs and "bench-to-bedside", approaches.

### CHM 625. Organic Synthesis. (4 h)

Reagents for and design of synthetic routes to organic molecules.

### CHM 626. Organic Synthesis. (4 h)

Reagents for and design of synthetic routes to organic molecules.

### CHM 634. Chemical Analysis. (3, 4 h)

Theoretical and practical applications of modern methods of chemical analysis. C-CHM 641.

### CHM 641. Physical Chemistry. (3, 4 h)

Fundamentals of physical chemistry.

### CHM 642. Physical Chemistry. (3, 4 h)

Fundamentals of physical chemistry.

### CHM 644. Physical Chemistry. (3, 4 h)

Fundamentals of physical chemistry.

### CHM 648. Electronic Structure Theory and Computational Chemistry. (3 h)

Introduction to quantum mechanical foundation of electronic structure theory and its application to problems in computational chemistry.

### CHM 651. Special Topics in Biochemistry. (3 h)

Fundamentals of biochemistry, with particular emphasis on mechanistic analysis of metabolic pathways, enzymatic activity, and drug action.

### CHM 656. Chemical Spectroscopy. (1.5 h)

Fundamental aspects of the theory and application of chemical spectroscopy, as found in the areas of analytical, inorganic, organic, and physical chemistry. Emphasis varies. Seven week courses. P-CHM 642 or 644, 661 or POI. May be repeated for credit.

### CHM 657. Chemical Spectroscopy. (1.5 h)

Fundamental aspects of the theory and application of chemical spectroscopy, as found in the areas of analytical, inorganic, organic, and physical chemistry. Emphasis varies. Seven week courses. P-CHM 642 or 644, 661 or POI. May be repeated for credit.

### CHM 661. Inorganic Chemistry. (3, 4 h)

Principles and reactions of inorganic chemistry. C-CHM 641.

### CHM 662. Nanochemistry in Energy and Medicine. (3 h)

New optoelectronic science and technologies, often involving nanotechnologies, photochemistry, and laser are revolutionizing many fields for solar energy conversion has inspired many researchers across different chemical, physical and engineering disciplines. Implementation of new laser-based optical techniques, photochemistry, and nanotechnology concepts have enabled dramatic progress in biomedical science where their potential is still developing rapidly. The goal of this course is to familiarize students with advanced topics in nanomaterials science, nanosynthesis, photochemistry, energy conversion, optoelectronics, and biomedical photonics. In this course nanomaterials structures, nanodevices, and time-resolved (fs-ms) photochemical processes involved in energy conversion and biomedical applications will be discussed. The energy and optoelectronic materials sections cover a broad range of different systems including organic, inorganic molecular materials, polymers, and semiconductors, applied in energy conversion and optoelectronics. The photochemical processes in these optoelectronic systems will be described. This includes light-driven optical, electronic, and chemical processes in a broad range of materials such as organic molecular materials, metal-organic dyes, polymers and semiconductors, that govern the behavior of optoelectronic and photovoltaic devices. Practical applications, device schemes, different generations, and recent progress in the field will be overviewed. The use of ultrafast laser techniques for the photochemical understanding of optoelectronic materials and interfaces will be covered. The application of nanomaterials and laser spectroscopy techniques in biomedical imaging (biomedical photonics) will be discussed. This includes nanodevices such as biosensors, drug delivery/release systems, for biomedical applications. The laser biomedical imaging techniques and optoelectronic approaches for clinically monitoring of early disease states and molecular diagnostics will be discussed.

### CHM 664. Materials Chemistry. (3 h)

A survey of inorganic-, organic-, bio-, and nano-materials, including hybrid materials and applications.

### CHM 664L. Materials Chemistry Lab. (1 h)

Synthesis of inorganic and organic based materials and their characterization. Lab-four hours.

### CHM 666. Chemistry and Physics of Solid State Materials. (3 h)

Design, synthesis, structure, chemical and physical properties, and the application of solid state materials.

### CHM 670. Biochemistry: Macromolecules and Metabolism. (3 h)

A lecture course introducing the principles of biochemistry, with emphasis on the experimental approaches that elucidated these principles. Major topics include structure, function, and biosynthesis of biological molecules, analysis of enzyme function and activity, bioenergetics, and regulation of metabolic pathways.

### CHM 673. Biochemistry Protein and Nucleic Acid Structure and Function. (3 h)

Special topics in biochemistry including catalytic mechanisms of enzymes and ribozymes, use of sequence and structure databases, and molecular basis of disease and drug action. P-CHM 670 or POI.

### CHM 676. Biophysical Chemistry. (3 h)

Introduction to a variety of technologies (e.g. thermochemistry, electrochemistry, spectrometry, and spectroscopy) for determining physical properties of biomolecules. From these properties, the biological function can be more readily understood and leveraged for medical gain. In addition to problem sets, students will have opportunities to hone science communication skills through a writing assignment and oral presentation. P-CHM 670 or POI.



**CHM 681. Chemistry Seminar & Literature. (0.5 h)**

Discussions of contemporary research and introduction to the chemical literature and acquisition of chemical information. May be repeated for credit. Pass/Fail only.

**CHM 682. Chemistry Seminar & Literature. (0.5 h)**

Discussions of contemporary research and introduction to the chemical literature and acquisition of chemical information. May be repeated for credit. Pass/Fail only.

**CHM 701. Advanced Physical Chemistry. (3 h)**

An accelerated survey of classical and statistical thermodynamics, chemical kinetics, and quantum chemistry. Staff.

**CHM 711. Directed Study in Chemistry. (1, 2 h)**

Reading and/or lab problems carried out under supervision of a faculty member. P-Permission of graduate committee. May be repeated for credit if topic varies.

**CHM 712. Directed Study in Chemistry. (1, 2 h)**

Reading and/or lab problems carried out under supervision of a faculty member. P-Permission of graduate committee. May be repeated for credit if topic varies.

**CHM 721. Advanced Organic Chemistry. (3 h)**

An accelerated survey of organic reactions and mechanisms. King, Welker, Jones.

**CHM 722. Physical Organic Chemistry. (3 h)**

Physical methods for determining structure-activity correlations and reaction.

**CHM 723. Transition-Metal Organic Chemistry. (3 h)**

Introduction to principles of bonding in organometallic chemistry and organometallic reaction mechanisms. Uses of transition-metal complexes in organic synthesis. Welker.

**CHM 724. Organic Synthesis. (3 h)**

Modern principles of organic synthesis and retrosynthetic analysis. Stereoselective synthesis of complex natural products. King, Welker, Jones.

**CHM 725. Structure Identification in Organic Chemistry. (3 h)**

Theory and use of spectroscopic techniques for structural identification of organic compounds. King, Welker.

**CHM 726. Reactive Intermediates. (3 h)**

Mechanistic and preparative photochemistry. Structure and chemistry of excited states, free radicals, carbenes, and selected ions. Jones.

**CHM 735. Spectrochemical Analysis. (3 h)**

Principles of atomic and molecular spectrometric methods; discussion of instrumentation, methodology, and applications.

**CHM 736. Chemical Separations. (3 h)**

Theory and practice of modern separation methods with emphasis on gas and liquid chromatographic techniques. Hinze, Jones, Colyer.

**CHM 737. Electrochemical Processes. (3 h)**

Principles of electrochemical methods, ionic solutions, and electrochemical kinetics. Colyer, Hinze, Jones, Nofle.

**CHM 738. Statistics for Analytical Chemistry. (3 h)**

Practical investigation of the statistical procedures employed in modern analytical chemistry.

**CHM 739. Special Topics in Analytical Chemistry. (3 h)**

The study of topical fields of research in analytical chemistry, with a focus on one or more specialties, such as ICP-MS; fluorescence, LIBS; Raman spectroscopy; nanoparticles in analysis; biosensors; or others. May be repeated for credit if course content differs.

**CHM 740. Drug Discovery, Design, and Development - Molecules to Medicines. (3 h)**

Conducted as a combination of lectures, reading assignments, and student-led discussions. Examines drug discovery and development pathways from target and lead compound identification through metabolic and toxicology studies, clinical trials, FDA approval, and marketing. Regulatory processes, intellectual property, and ethical issues are also considered. Taught by WFU faculty from both the Reynolda and Bowman Gray campuses and colleagues in the pharmaceutical and biotechnology industries, students work in teams to present case studies on the discovery, development, and marketing of recently approved pharmaceuticals. Also listed as BAMB 740. P-Organic chemistry and biochemistry.

**CHM 745. Statistical Thermodynamics. (3 h)**

The application of statistical mechanics to chemistry to understand and predict the thermodynamic properties. Kondepudi.

**CHM 746. Chemical Kinetics. (3 h)**

Kinetics and mechanisms of chemical reactions; theories of reaction rates. Swofford, Kondepudi.

**CHM 747. Self-Organization in Nonequilibrium Chemistry. (3 h)**

Study of the phenomena of self-organization, such as oscillations, multistability, propagating waves, and formation of spatial patterns. Kinetic systems with autocatalysis will be studied using bifurcation theory and other methods of non-linear systems. Kondepudi.

**CHM 751. Biochemistry of Nucleic Acids. (1.5-3 h)**

Advanced survey of the structure, reactivity, and catalytic properties of RNA and DNA, including modern experimental techniques. Current literature will be presented and critically evaluated.

**CHM 752. Protein Chemistry. (1.5-3 h)**

Advanced survey of protein biochemistry with an emphasis on structural families, enzyme catalytic mechanisms, expression and purification methods, and biophysical and structural experimental techniques.

**CHM 753. Chemical Biology. (3 h)**

Survey of the origins and emerging frontiers of chemical biology, with a focus on the impact of chemical methods on our understanding of biology. Topics include protein design, chemical genetics, and methods in genomics and proteomics research.

**CHM 755. Biomolecular Mass Spectrometry: Fundamentals and Applications. (1.5-3 h)**

Designed for graduate and advanced undergraduates focusing on the principles of mass spectrometry and use in the analysis of small molecules, peptides, proteins, and nucleic acids. Covers sample preparation, data acquisition and interpretation, database searching, and quantification of molecules using a variety of techniques.

**CHM 756. Biomolecular NMR. (1.5 h)**

One half-semester course designed for graduate and advanced undergraduates focusing on NMR of small oligonucleotides and proteins. Covers sample preparation, data acquisition and processing as well as generating solution structures from NMR data. A student should have command of 1D acquisition and processing as well as experience with 2D acquisition and processing before taking this class. All computational exercises will involve some familiarity with UNIX operating system. P-POI.

**CHM 757. Macromolecular Crystallography. (1.5 h)**

This is a one-half semester course designed for graduate and advanced undergraduates focusing on structural characterization of macromolecules utilizing x-ray crystallography. The course will cover sample preparation, diffraction theory, data acquisition and processing as well as structure solution and refinement techniques. P-CHM 356A/656 highly recommended.

**CHM 761. Chemistry of the Main Group Elements. (3 h)**

Principles of bonding, structure, spectroscopy, and reactivity of compounds of the main group elements. Synthesis and applications of organometallic compounds of the main group. Noftle.

**CHM 762. Coordination Chemistry. (3 h)**

Theory, structure, properties, and selected reaction mechanisms of transition metal complexes. Design and synthesis of ligands and their applications in bioinorganic chemistry. Bierbach, Melson.

**CHM 764. Chemical Applications of Group Theory and Symmetry. (3 h)**

Symmetry, group theory, bonding, and spectroscopy. Applications to structure, stereoisomers, multicenter bonding and symmetry-controlled reactions. Bierbach, Lachgar, Noftle.

**CHM 765. Bioinorganic Chemistry. (3 h)**

The inorganic chemistry of life. a) Metals in biocatalysis: elucidation of structure and function of metalloenzymes by various spectroscopic and molecular biology methods; biomimetic ligands; synthetic models of active sites. b) Metals and toxicity. c) Inorganic compounds in therapy and diagnosis. Bierbach.

**CHM 771. Quantum Chemistry. (3 h)**

The quantum theory and its application to the structure, properties, and interactions of atoms and molecules. Theoretical and computational approaches. Salam, Swofford.

**CHM 791. Thesis Research I. (1-9 h)**

Staff.

**CHM 792. Thesis Research II. (1-9 h)**

Staff.

**CHM 829. Tutorial in Organic Chemistry. (3 h)**

King, Welker, Jones.

**CHM 830. Heterocyclic Chemistry. (3 h)**

Survey of the major groups of heterocyclic compounds. Modern applications of heterocycles. King.

**CHM 831. Principles of Chemical Carcinogenesis. (3 h)**

Fundamental chemistry of carcinogenesis. Survey of the chemistry and structure of carcinogenic compounds. Defense and chemotherapeutics.

**CHM 832. Theoretical Organic Chemistry. (3 h)**

Molecular orbital treatment of structure and reactivity of organic molecules with emphasis on the applications of MO theory in pericyclic and photochemical reactions. Welker.

**CHM 833. Advanced Reaction Mechanisms. (3 h)**

Detailed analysis of mechanisms with emphasis on characterization of transition state structure.

**CHM 838. Advances in Analytical Chemistry - Luminescence Spectroscopy. (3 h)**

Instrumentation, methods, and applications of molecular luminescence spectroscopy.

**CHM 839. Tutorial in Analytical Chemistry. (2-3 h)**

Colyer, Hinze, Jones.

**CHM 843. Tutorial in Advanced Kinetics. (3 h)****CHM 844. Tutorial in Thermodynamics/Statistical Mechanics. (3 h)**

Kondepudi.

**CHM 848. Lasers in Physical Chemistry. (3 h)**

Survey of lasers and their use to study physical-chemical processes. Topics include types of lasers, range of spectral and temporal operation, methods of detection, and application to specific chemical problems. Swofford.

**CHM 849. Tutorial in Chiral Asymmetry in Chemistry and Physics. (3 h)**

Chiral asymmetry in nuclear, atomic, and molecular interactions. General group theoretic approach to spontaneous chiral symmetry breaking and the study of specific mechanisms. Kondepudi.

**CHM 861. Applications of Electrochemistry. (3 h)**

Determination of inorganic and organic reaction mechanisms, electrochemical synthesis, applications to materials science. Noftle.

**CHM 862. Special Topics in Coordination Chemistry. (3 h)**

Selected applications of transition metal chemistry such as in paramagnetic resonance (NMR, EPR), bioinorganic chemistry, and industrial process. Bierbach, Melson.

**CHM 863. Crystallography. (3 h)**

Crystal structure determination using powder and single crystal X-ray diffraction. Lachgar.

**CHM 864. Modern Chemical Spectroscopy. (3 h)**

Applications of vibrational, rotational, electronic, and nuclear spectroscopy to current problems in chemistry. Bierbach, Lachgar, Noftle.

**CHM 865. Metallopharmaceuticals. (3 h)**

Design and mechanism of metal-containing pharmaceuticals in cancer therapy and diagnosis.

**CHM 869. Tutorial in Inorganic Chemistry. (3 h)**

Bierbach, Noftle, Lachgar.

**CHM 871. Advanced Quantum Chemistry. (3 h)**

Advanced quantum mechanical methods for the investigation of electronic structure and radiation-molecule interaction.

**CHM 879. Tutorial in Theoretical Chemistry. (3 h)****CHM 888. Dependent Proposal. (3 h)**

Course requires a written document detailing the Ph.D. project and an oral exam covering the basic chemical principles, foundation of the plan and experimental design. Pass/Fail. Must be taken before the 6th semester of residence.

**CHM 891. Dissertation Research I. (1-9 h)****CHM 892. Dissertation Research II. (1-9 h)**

## Faculty

Program Director Amanda Jones

Thurmond D. Kitchin Professor of Chemistry and Chair S. Bruce King

John B. White Professor of Chemistry Willie L. Hinze

William L. Poteat Professor of Chemistry Mark E. Welker

Professors Rebecca W. Alexander, Ulrich Bierbach, Christa L. Colyer,

Patricia C. Dos Santos, Bradley T. Jones, Abdessadek Lachgar, Akbar

Salam

Associate Professors Lindsay R. Comstock, Amanda C. Jones, Paul B.

Jones

Assistant Professors Scott M. Geyer, Elham Ghadiri, John C. Lukesh, Troy

A. Stich

## Chemistry, MS

### Master of Science Degree Requirements

The degree requires 30 credit hours; 24 hours of coursework with an average grade of B or above plus 6 hours of thesis research. At least 12 of the 24 hours must be in courses numbered 700 or above. The remaining 12 hours may be in either 600 or 700 level courses. All work must be completed within six years of the date of initial enrollment in the graduate program.

For additional degree requirements, see Requirements for Degrees.

## Chemistry, PhD

### Doctor of Philosophy Degree Requirements

Doctor of Philosophy Degree Requirements Students have no minimum required number of course hours. Courses taken are selected in consultation with the Advisory Committee. The degree requires an average grade of B or above, plus a minimum of 6 hours of dissertation research.

For additional degree requirements, see Requirements for Degrees.

## Communication (COM)

### Master of Arts

#### Overview

Students who enroll are expected to have a strong undergraduate background and rationale for graduate work in communication. The program is designed primarily as a PhD preparation program. Most students will require two academic years to complete the program. The graduate program is associated with the Bioethics and Documentary Film graduate programs. Students have the opportunity to take classes in those areas as well. The program began in 1969.

### Programs

#### Master of Arts

- Communication, MA

### Courses

#### COM 602. Argumentation Theory. (3 h)

Examination of argumentation theory and criticism; emphasis on both theoretical issues and social practices. Offered in alternate years. Hazen, Zulick.

#### COM 603S. Directing the Forensics Program. (1-3 h)

A pragmatic study of the methods of directing high school and college forensics. Laboratory work in the High School Debate Workshop. Summer only. Staff.

#### COM 604. Freedom of Speech. (3 h)

Examination of the philosophical and historical traditions, significant cases, and contemporary controversies concerning freedom of expression. Offered in alternate years. Llewellyn, Zick.

#### COM 605. Communication and Ethics. (3 h)

A study of the role of communication in ethical controversies. Hyde.

#### COM 610. Media Production II. (3 h)

Students produce advanced media projects over which they assume significant creative control.

#### COM 612. Film History to 1945. (3 h)

Survey of the developments of motion pictures to 1945. Includes lectures, readings, reports, and screenings. Dalton.

#### COM 613. Film History since 1945. (3 h)

Survey of the development of motion pictures from 1946 to present day. Includes lectures, readings, reports, and screenings. Dalton.

#### COM 614. Media Effects. (3 h)

Theoretical approaches to the role of communication in reaching mass audiences and its relationship to other levels of communication. Mitra.

#### COM 615. Communication and Technology. (3 h)

Exploration of how communication technologies influence the social, political, and organizational practices of everyday life. Hyde, Mitra.

#### COM 616. Screenwriting. (3 h)

Introduction to narrative theory as well as examination of the role of the screenwriter in the motion picture industry, the influence of genre on screenwriting, and exploration of nontraditional narrative structures. Students complete an original, feature-length screenplay.

#### COM 617. Communication and Popular Culture. (3 h)

Explores the relationship between contemporary media and popular culture from a cultural studies perspective using examples from media texts. Mitra.

#### COM 619. Media Ethics. (3 h)

Examines historical and contemporary ethical issues in the media professions within the context of selected major ethical theories while covering, among other areas, issues relevant to journalism, advertising, public relations, filmmaking, and media management.

#### COM 620. Media Theory and Criticism. (3 h)

Critical Study of media including a survey of major theoretical frameworks.

#### COM 629. The Arab-Israeli-Palestinian Conflict as a Communication Phenomenon. (3 h)

Explores the evolution of the Arab-Israeli-Palestinian conflict from the end of the Nineteenth Century to its contemporary dynamic as a communication phenomenon; focusing on the narratives of the parties to the conflict as viewed through the lens of extant communication-grounded conflict theory.

#### COM 630. Communication and Conflict. (3 h)

Review of the various theoretical perspectives on conflict and negotiation as well as methods for managing relational conflict. Rogan.

#### COM 634. Narrative Approaches to Entrepreneurship. (3 h)

Embraces narrative theory to examine how myths, stories, and other tropes form the basis on which we understand entrepreneurship. We will consider diverse and alternative stories as well as the construction of the neoliberal individual in a postmodern epoch.

#### COM 635. Survey of Organizational Communication. (3 h)

Overview of the role of communication in constituting and maintaining the pattern of activities that sustain the modern organization. Llewellyn, McMillan.

#### COM 636. Organizational Rhetoric. (3 h)

Explores the persuasive nature of organizational messages - those exchanged between organizational members and those presented on behalf of the organization as a whole. Offered in alternate years. McMillan.

**COM 637. Rhetoric of Institutions. (3 h)**

A study of the communication practices of institutions as they seek to gain and maintain social legitimacy. Offered in alternate years. Llewellyn.

**COM 638. The Art of Twentieth-Century African-American Rhetoric. (3 h)**

Explores how African Americans have invented a public voice in the twentieth century. Focuses on how artistic cultural expression, in particular, has shaped black public speech. Watts.

**COM 639. Practices of Citizenship. (3 h)**

Explores the history and theory of citizenship as a deliberative practice linked to the rhetorical tradition of communication with an emphasis on participatory and deliberative skills as part of the process in which communities are formed and citizens emerge as members.

**COM 640. Democracy, Slavery, and Sex: Emancipation Discourse from the Founding to the Civil War. (3 h)**

Examines the influence of emancipation movements on American public discourse by reading and analyzing original speeches and documents with emphasis on abolition of slavery and woman's rights.

**COM 641. Class, Race, Sex and War: Emancipation Discourse from the Civil War to the Second Wave of Feminism. (3 h)**

Examines the influence of emancipation movements on American public discourse by reading and analyzing original speeches and documents. Among the movements addressed are labor, civil rights, student protest, and women's liberation.

**COM 642. Political Communication. (3 h)**

Study of electoral communication including candidate and media influences on campaign speeches, debates and advertising. Offered in alternate years. Louden.

**COM 643. Presidential Rhetoric. (3 h)**

Examines theory and practice of speechmaking and mediated presidential communication. Louden.

**COM 650. Intercultural Communication. (3 h)**

Introduction to the study of communication phenomena between individuals and groups with different cultural backgrounds. Offered in alternate years. Hazen, Mitra, Rogan.

**COM 651A. Comparative Comm Japan. (1.5, 3 h)**

Comparison of communicative and rhetorical processes in the U.S. with one or more other national cultures with an emphasis on both historical and contemporary phenomena. a) Japan; b) Russia; c) Great Britain; d) Multiple countries. Offered in alternate years. Hazen.

**COM 654. International Communication. (3 h)**

In-depth look at the role of mass media in shaping communication between and about cultures using examples from traditional and emerging media systems. Hazen, Mitra.

**COM 655. Health Communication. (3 h)**

Examination of theories, research, and processes of health communication in contemporary society. May be repeated for credit.

**COM 656. Health Comm: Patient-Provider. (3 h)**

Explores contemporary issues related to communication in health care contexts, notably theories and research on patient-provider communication.

**COM 657. Health Comm Campaigns. (3 h)**

Examination of the principles behind designing, implementing, and evaluating a health campaign, including message design and application of media theories for behavior change.

**COM 664. Narrative, Communication, and Health. (3 h)**

Combines theory and research in social science with narrative in multiple forms: film, visual art, memoir, short story, and poetry. Explores the power of story to transform human lives with an emphasis on health. Asks: What is narrative? How does narrative shape who we are? How does narrative inform our understanding and experience of wellness and illness? How does narrative influence health communication in our personal relationships? What role can narrative play in medical education, medical practice, and public health campaigns? Through careful study and reflection, students discover how story can create positive change on a personal, professional, and societal level.

**COM 670. Special Topics. (1-4 h)**

Examination of topics not covered in the regular curriculum. Staff.

**COM 680. Great Teachers. (3 h)**

Intensive study of the ideas of three noted scholars and teachers in the field of communication. Students interact with each teacher during a two- or three-day visit to Wake Forest. Staff.

**COM 719. Theory and Research Design in Communication Science. (3 h)**

Examination of communication science theory with a focus on critiquing and utilizing theory in research, accompanied by an overview of quantitative research design and methodology. Giles, Helme, Mitra, Rogan.

**COM 720. Quantitative Analysis in Communication Science. (3 h)**

Overview of statistical data analysis, interpretation, and reporting for communication research. P-COM 719. Giles, Helme, Mitra, Rogan.

**COM 752. Contemporary Rhetorical and Communication Theory. (3 h)**

Introduction to theory building in human communication and rhetoric, with a survey and evaluation of major contemporary groups of theorists. Approaches studied are those which emphasize the symbol (George Herbert Mead and Kenneth Burke), human relations (Martin Buber), the media (Marshall McLuhan), and systems (Norbert Wiener). Hazen, Watts.

**COM 753. Seminar in Persuasion. (3 h)**

Study of contemporary social science approaches to persuasion theory and research. Influence is examined with interpersonal, social, and mass media contexts. Louden.

**COM 758. Rhetorical Theory. (3 h)**

Introduction to primary texts in the theory of rhetoric including classical theories, dramatism, semiotics, and critical/cultural studies. Llewellyn, McMillan, Watts, Zulick.

**COM 759. Rhetorical Criticism. (3 h)**

The critical application of rhetorical theories aligning with the traditions covered in Communications 758. P-Communications 758.

**COM 763. Proseminar in Communication. (1.5 h)**

Introduction to graduate study in communication. Mitra.

**COM 764. Proseminar in Communication. (1.5 h)**

Introduction to graduate study in communication. Mitra.

**COM 773. Seminar in Interpersonal Communication. (3 h)**

Study of recent research and theoretical developments in dyadic communication. Methodology examined includes conversational analysis, field, and experimental approaches. Rogan.

**COM 774. Research and Theory of Organizational Communication. (3 h)**

Advanced study of theoretical approaches to the role of communication in organizations and empirical application of such theories. Llewellyn, McMillan.



**COM 780. Special Seminar. (1-3 h)**

Intensive study of selected topics in communication. Topics may be drawn from any theory or content area of communication and offer a wide variety of special topics across a two year program. May be repeated for credit for a maximum of 12 hours.

**COM 781. Readings and Research in Speech Communication. (1-3 h)**

Students may receive credit for a special reading project in an area not covered by regular courses or for a special research project not related to the master's thesis. May be repeated for credit for a maximum of 16 hours.

**COM 782. Readings and Research in Speech Communication. (1-3 h)**

Students may receive credit for a special reading project in an area not covered by regular courses or for a special research project not related to the master's thesis. May be repeated for credit for a maximum of 16 hours.

**COM 791. Thesis Research I. (1-9 h)**

Staff.

**COM 792. Thesis Research II. (1-9 h)**

Staff.

## Faculty

Program Director Jarrod Atchison

Chair Steven Giles

Associate Chair Marina Krcmar

University Distinguished Professor of Communication Ethics Michael J. Hyde

Professors Mary Dalton, Sandra Dickson, Michael David Hazen, Woodrow Hood, Marina Krcmar, Allan D Loudon, Ananda Mitra, Randall G. Rogan

Larry J. and LeeAnn E. Merlo Presidential Chair for Communication and Entrepreneurship and Associate Professor Rebecca Gill

Associate Professors Jarrod Atchison, Mollie Canzona, Steven Giles, John Llewellyn, Alessandra Von Burg, Ron Von Burg, Margaret D. Zulick

Assistant Professor Phillip Cunningham

Assistant Teaching Professors Polly Black, Rowie Kirby-Straker

Professor of Practice and Head Debate Coach Justin Green

Professor of Practice and Associate Debate Coach Amber Kelsie

Lecturer T. Nathaniel French

Affiliated Teaching Professors Peter Gilbert, Cara Pilson

Manager of Communication/Media Laboratory Ernest S. Jarrett

## Communication, MA

### Degree Requirements

#### Thesis Option

The degree requires 33 credit hours; 27 hours of coursework with an average grade of B or above plus 6 hours of thesis research. At least 18 of the 27 hours must be in courses numbered 700 or above. The remaining 9 hours may be in either 600 or 700 level courses of which 6 hours may be in electives outside the department. All work must be completed within six years of the date of initial enrollment in the graduate program.

The program requires a core of courses in research methodology and then allows students to take courses in content areas such as health communication, intercultural communication, interpersonal communication, mass communication, organizational communication, public communication, and rhetorical communication. In addition, the

department provides work in communication ethics, communication technologies, and argumentation.

All students must demonstrate competence in a research skill relevant to their thesis and/or professional goals. Most students demonstrate their competency in empirical methodology or critical methodology; however, a foreign language also may be elected.

For additional degree requirements, see Requirements for Degrees.

### Comprehensive Examination Option

Students are required to indicate their desire to take a comprehensive examination by the end of the first year. The degree requires 33 credit hours with an average grade of B or above. At least 24 of the 33 hours must be in courses numbered 700 or above. The remaining 9 hours may be in either 600 or 700 level courses of which 6 hours may be in electives outside the department. All work must be completed within six years of the date of initial enrollment in the graduate program. Students will be required to successfully complete a comprehensive examination at the end of completing the 33 hours of coursework.

For additional degree requirements, see Requirements for Degrees.

## Computer Science (CSC)

### Master of Science

#### Overview

The program is designed to accommodate students seeking a terminal MS degree or preparation for entering a PhD program.

In addition to the graduate school admission requirements, students entering the graduate program must have completed computer science coursework in the areas of programming in a modern high-level language, basic computer organization and architecture, data structures and algorithms, and principles of operating systems and networks. Students should also have completed mathematics courses equivalent to differential and integral calculus including infinite series, discrete mathematics, linear algebra, and probability and statistics.

Students in the program may apply to participate in the Interdisciplinary Graduate Track in Structural and Computational Biophysics. On successful completion of this track, a student will earn an MS degree in computer science (thesis option) with a Certificate in Structural and Computational Biophysics.

Current information about the program and links to faculty interests can be accessed on the Web at <http://college.wfu.edu/cs/>.

### Programs

- Computer Science, MS
- Computer Science, BS & MS Five Year Program
- Structural and Computational Biophysics (SCB), Certificate

### Courses

#### CSC 611. Computer Architecture. (3 h)

An in-depth study of computer systems and architecture design. Topics include processor design, memory hierarchy, external string devices, interface design, and parallel architectures.



**CSC 621. Database Management Systems. (3 h)**

Introduction to large-scale database management systems. Topics include data independence, database models, query languages, security, integrity, and transactions.

**CSC 622. Data Management and Analytics. (3 h)**

Management, analysis, and visualization of large-scale data sets. Topics include key-value databases, distributed file systems, map reduce techniques, similarity measures, link analysis, and clustering. P - CSC 621.

**CSC 631. Software Engineering. (3 h)**

Study of fundamental topics in software engineering including software processes, agile software development and project management, requirements engineering, system modeling, design patterns and implementation, and software testing. Students practice software engineering principles through team projects.

**CSC 632. Mobile and Pervasive Computing. (3 h)**

Study of the fundamental design concepts and software principles underlying mobile and pervasive computing, including mobile interface design, data management, mobile networks, location aware computing, and mobile security. Involves significant programming on modern mobile platforms.

**CSC 633. Principles of Translators for Compilers and Interpreters. (3 h)**

Study of techniques for translating high-level programming languages to a target language. Typical target languages include Java bytecode and assembly language. Topics include lexical analysis, parsing, intermediate representatives, language semantics, code generation, and optimization.

**CSC 641. Operating Systems. (3 h)**

Study of the different modules that compose a modern operating system. In-depth study of concurrency, processor management, memory management, file management, and security.

**CSC 643. Internet Protocols. (3 h)**

Study of wide area connectivity through interconnection networks. Emphasis is on Internet architecture and protocols. Topics include addressing, routing, multi-casting, quality of service, and network security.

**CSC 646. Parallel Computation. (3 h)**

Study of techniques for parallel and high performance computing. Topics include an overview of modern high-performance computer design, pipelining, concurrency, data dependency, shared memory, message passing, and graphics processors. Select parallel algorithms and methods for asymptotic scalability analysis are also presented. Assignments may include coding with OpenMP, MPI, and the CUDA library.

**CSC 647. GPU Programming. (3 h)**

An introduction to general purpose parallel program development on Graphics Processing Units (GPUs). Topics covered will include data parallelism, memory and data locality, parallel algorithm patterns and performance metrics, and application test studies.

**CSC 648. Computer Security. (3 h)**

Introduction to computer security concepts and associated theory. Detailed coverage of the core concepts of access control, cryptography, trusted computing bases, digital signatures, authentication, network security, and secure architectures. Legal issues, security policies, risk management, certification and accreditation are covered in their supporting roles. Students will learn to analyze, design, and build secure systems of moderate complexity. P—CSC 241.

**CSC 652. Numerical Linear Algebra. (3 h)**

Numerical methods for solving matrix and related problems in science and engineering using high-level matrix-oriented language such as MATLAB. Topics include systems of linear equations, least squares methods, and eigenvalue computations. Special emphasis is given to applications. Credit is not allowed for both CSC 652 and MTH 626.

**CSC 655. Introduction to Numerical Methods. (3 h)**

An introduction to numerical computations on modern computer architectures; floating point arithmetic and round-off error including programming in a scientific/engineering language such as MATLAB, C or Fortran. Topics include algorithms and computer techniques for the solution of problems such as roots of functions, approximations, integration, systems of linear equations and least squares methods. Credit not allowed for both MST 655 and CSC 655.

**CSC 661. Digital Media. (3 h)**

Study of the mathematics and algorithms underlying digital sound, image, and video manipulation. Topics may include sampling and quantization, resolution, filters, transforms, data encoding and compression, multimedia files types and transmission, 3D printing, and digital media in multimedia and web programming.

**CSC 663. Computer Graphics. (3 h)**

Study of software and hardware techniques in computer graphics. Topics include line and polygon drawing, hidden line and surface techniques, transformations, and ray tracing.

**CSC 665. Image Processing Fundamentals. (3 h)**

Study of the basic theory and algorithms for image enhancement, restoration, segmentation, and analysis.

**CSC 671. Artificial Intelligence. (3 h)**

An overview of areas of study in artificial intelligence. Topics are chosen from among knowledge representation, formal logic, fuzzy logic, intelligent agents, expert systems, machine learning, robotics, and natural language processing.

**CSC 673. Data Mining. (3 h)**

An overview of data mining methods and algorithms for classification, association analysis, clustering, and anomaly detection. A major focus will be on the implementation of algorithms for and design and construction of solutions to data mining problems. Applications and ethical considerations of data mining in humanities, arts, and healthcare are discussed.

**CSC 675. Neural Networks and Deep Learning. (3 h)**

An introduction to concepts and applications of neural networks and deep learning, a branch of machine learning that uses additional layers of high-level representations of data to maximize performance on a given task. The topics covered may include basic neural networks, deep neural networks, and convolutional and recurrent neural networks. Students learn the theoretical concepts behind several of types of neural network algorithms and gain practical experience applying them.

**CSC 685. Bioinformatics. (3 h)**

Introduction to bioinformatics and computing techniques essential to current biomedical research. Primary focus is gene and protein sequence and structure databases and algorithms for sequence and structure analysis. Emphasizes interdisciplinary interaction and communication. Also listed as PHY 685 and BIO 685.

**CSC 687. Computational Systems Biology. (3 h)**

Introduction of concepts and development of skills for comprehension of modern systems biology research problems, including both biological and computational aspects. Topics may include microarrays, protein interaction networks, large-scale proteomics experiments, and algorithms and computational approaches for modeling, storing, and analyzing the resulting data sets. Emphasizes interdisciplinary interaction and communication.

**CSC 691. Selected Topics. (1-3 h)**

Topics in computer science that are not studied in regular courses or which further examine topics begun in regular courses. P-POI.

**CSC 693. Individual Study. (1, 2 h)**

Independent study directed by a faculty adviser. By prearrangement.

**CSC 702. Theory of Computation. (3 h)**

Basic theoretical principles of computer science. Topics include the relationship between automata and grammars, Church's thesis, unsolvability, and computational complexity.

**CSC 721. Theory of Algorithms. (3 h)**

Design and analysis of algorithms. Topics may include time and space complexity analysis, divide-and-conquer algorithms, the fast Fourier transform, NP-complete problems, and efficient algorithms for operations on lists, trees, graphs, and matrices.

**CSC 726. Parallel Algorithms. (3 h)**

A thorough, current treatment of parallel processing and supercomputing. Modern high-performance commercial architectures, parallel programming, and various supercomputing applications are discussed. Hands-on experience is emphasized. Students are given access to a variety of machines.

**CSC 731. Compiler Optimization. (3 h)**

Design and implementation of optimizing compilers. Optimization techniques, parallelizing transforms, and comparative examples form the literature. P-CSC 633.

**CSC 743. Topics in Operating Systems. (3 h)**

Issues in operating system development; resource management, queuing theory, concurrent processing, and languages for operating system development. P-CSC 641.

**CSC 753. Nonlinear Optimization. (3 h)**

The problem of finding global minimums of functions is addressed in the context of problems in which many local minima exist. Numerical techniques are emphasized, including gradient descent and quasi-Newton methods. Current literature is examined and a comparison made of various techniques for both unconstrained and constrained optimization problems. Credit not allowed for both MTH 753 and CSC 753. P-CSC or MTH 655.

**CSC 754. Numerical Methods for Partial Differential Equations. (3 h)**

Numerical techniques for solving partial differential equations (including elliptic, parabolic and hyperbolic) are studied along with applications to science and engineering. Theoretical foundations are described and emphasis is on algorithm design and implementation using C, FORTRAN or MATLAB. Also listed as MTH 754. P-CSC 655 or MTH 655.

**CSC 764. Machine Learning. (3 h)**

An introduction to concepts and application of machine learning algorithms and techniques, focusing on supervised and unsupervised learning. Students learn the theoretical concepts behind several types of machine learning algorithms and gain practical experience applying them. Algorithms covered could include logistic regression, support vector machines, regularization, dimensional reduction, clustering, and neural networks.

**CSC 765. Image Processing. (3 h)**

Advanced techniques in image processing including image formation and corruption models, digitization, Fourier domain methods, enhancement, restoration, and tomographic reconstruction. P-CSC 721.

**CSC 766. Pattern Recognition. (3 h)**

Study of statistical pattern recognition techniques and computer-based methods for decision-making, including discriminant functions, feature extraction, and classification strategies. Emphasis is on applications to medical image analysis. P-POI.

**CSC 767. Computer Vision. (3 h)**

Techniques for extracting features from images: optimal thresholding, 2D and 3D feature measurement, graph isomorphism and graph matching methods. P-CSC 766.

**CSC 775. Neural Networks. (3 h)**

Design of artificial neural networks. Introduction to the relevant neurophysiology, feedforward networks, recurrent networks, and applications to pattern recognition and optimization.

**CSC 779. Topics in Artificial Intelligence. (3 h)**

Advanced topics in artificial intelligence. Individual projects are assigned. P-CSC 671.

**CSC 781. Computer Science Seminar. (0 h)**

Discussions of contemporary research. No credit.

**CSC 790. Advanced Topics in Computer Science. (3 h)**

Advanced topics of current interest in computer science not covered by existing courses. P-POI.

**CSC 791. Thesis Research I. (1-9 h)**

May be repeated for a maximum of 18 hours each. Satisfactory/Unsatisfactory.

**CSC 792. Thesis Research II. (1-9 h)**

May be repeated for a maximum of 18 hours each. Satisfactory/Unsatisfactory.

**CSC 795. Project. (3 h)**

Satisfactory/Unsatisfactory.

**CSC 796. Internship. (1-6 h)**

Provides students an opportunity to integrate computer science theory and practice by working in a supervised and professional setting. The course is limited to those seeking the fifth-year Master's in computer science and approval must be obtained by the Computer Science Graduate faculty prior to enrollment. Credit hours may be adjusted based on the length of the internship. May be repeated. Satisfactory/Unsatisfactory. P-CSC 631 (admission to the 5th year program).

## Faculty

Program Director Samuel S. Cho

Chair William H. Turkett

Emeritus Reynolds Professor Robert J. Plemmons

Professors Jennifer J. Burg, Errin W. Fulp, David J. John, V. Paul Pauca, Peter Santago

Associate Professors Daniel A. Cañas, Samuel S. Cho, Stan J. Thomas, William H. Turkett Jr.

Assistant Professors Sarra Alqahtani, Grey Ballard, Minghan Chen, Natalia Khuri

Wright Presidential Chair, Roy Doyle

Adjunct Professors Rob Robless, Sami Khuri

# Computer Science, MS

## Degree Requirements

Completion of the degree requirements may be fulfilled in one of three ways: thesis, project, and coursework-only. The degree with a thesis requires thirty semester hours, including six hours of thesis research (CSC 791, CSC 792) and a successfully completed thesis. The degree with a project requires thirty-six semester hours, including three hours of project research (CSC 795) and a successfully completed project. The coursework-only degree requires thirty-six semester hours of coursework.

The following courses are identified as the core courses for the degree and are required of all students:

Code	Title	Hours
CSC 631	Software Engineering	3
CSC 641	Operating Systems	3
CSC 702	Theory of Computation	3
CSC 721	Theory of Algorithms	3

The remaining hours are then selected from graduate computer science courses. For the thesis, project, and coursework-only options, at least six of the remaining hours must be selected from 700-level courses other than:

Code	Title	Hours
CSC 791	Thesis Research I	1-9
CSC 792	Thesis Research II	1-9
CSC 795	Project	3

Graduate courses may be taken outside of the department to fulfill requirements with prior approval from the graduate program director; however, no more than six such hours may count toward the degree.

For additional degree requirements, see Requirements for Degrees.

## Counseling (CNS)

### Master of Arts Master of Arts in Human Services Overview

The Master of Arts in Counseling degree is awarded to candidates who successfully complete a minimum of sixty semester hours in a planned and directed program of study. The program consists of a common core of courses to provide knowledge in eight areas: human growth and development, social and cultural foundations, helping relationships, group work, career and lifestyle development, appraisal, research and program evaluation, and professional orientation. The program also supplies clinical instruction with practicum and internship experiences. In addition, students must select a program specialty area-school counseling or clinical mental health counseling-in which they complete their internships and take courses that assure at least entry-level competence.

Continuance in the program and admission to candidacy are based on success in academic courses and on personal, ethical, and performance considerations.

Graduates are eligible to sit for the National Counselor examination. Those who complete the school counseling program are eligible to apply for licensure with the public schools of North Carolina.

### Admission to the Program

Admissions decisions are based on consideration of a combination of criteria: college grade-point average, Graduate Record Examination (GRE) scores, recommendations, professional commitment, work or volunteer experience in the human services field, and suitability for the profession. Applicants being considered for admission are required to have a personal interview with program faculty or staff. Candidates for the counseling programs are not required to have a specific undergraduate major or minor. Applicants may request that the GRE requirement be waived for their admissions application. The admissions committee considers previous academic performance and graduate degrees heavily in GRE waiver request decisions.

### Criminal Background Check

Acceptance to the program will be contingent on the successful completion of a criminal background check. The background check is standardized and mandatory for all students. Any student who has a criminal offense documented through this procedure will have to address this on a case-by-case basis with the Program Director and Department Chair. Areas of concern may include, but are not limited to, felony convictions, especially those involving harm to others, theft or fraud convictions, and patterns of misdemeanors other than moving traffic violations.

### On Campus and Online Programs

There are two counseling tracks offered through the Department of Counseling: the school counseling track and the clinical mental health counseling track. Both are offered on campus and via online delivery systems. The campus programs are for full-time students. Applications are accepted for entry into the on-campus programs for the fall semester only. The online programs are for part-time students. Applications are accepted for entry in the online programs for the fall, spring, and summer semesters. Course and admission requirements for on-campus and online students are the same.

### Master of Arts in Counseling - School Counseling

The school counseling track provides prospective school counselors with the knowledge, skills, and competence necessary to establish and conduct effective developmental guidance and counseling programs in schools, kindergarten through the 12th grade. The course of study which leads to a license in school counseling in North Carolina is based on the requirements of the North Carolina Department of Public Instruction and is accredited by the Council on Accreditation of Counseling and Related Educational Programs (CACREP). School counseling students are not required to hold a teacher's license to enter the program.

### Master of Arts in Counseling - Clinical Mental Health

In the clinical mental health track, students are prepared for counseling in a wide variety of community settings and agencies. The course of study is accredited by the Council on Accreditation of Counseling and Related Educational Programs (CACREP).

### Master of Arts in Human Services (Online Only)

The Master of Arts in Human Services degree is offered by the Department of Counseling via online delivery only. The degree is awarded to candidates who successfully complete a minimum of 39 semester hours in a planned and directed program of study. The program consists of 30 hours of courses in common with the Masters in Counseling

program, an additional 6 hours of specialized study in human services administration and programming, and 3 hours of field experience. Applications are not currently being accepted for entry in this program.

## Residency Requirements – Online Only

Two Thursday night through Sunday at noon residency experiences are required for online classroom students. These face-to-face sessions will allow faculty to engage in competency and readiness evaluations as well as to plan and evaluate practicum and internship arrangements. Students will also complete the experiential group requirements at this time. Dates will be announced six months in advance.

## Programs

- Counseling, MA
- Counseling, MDiv/MA

## Courses

*All courses listed are open to counseling students only unless otherwise noted.*

### CNS 721. Research and Statistical Analysis in Counseling. (3 h)

Qualitative and quantitative research methods. Analysis and evidence-based evaluation of research-based literature in the counseling field. Grant writing. Program evaluation. Descriptive, Inferential, parametric and non parametric statistical procedures involved in research. Shaw.

### CNS 723. Statistical Analysis for the Helping Professions. (3 h)

Descriptive and inferential (parametric and nonparametric) statistical procedures involved in research. Computer methods for statistical analysis. Counseling students only.

### CNS 736. Appraisal Procedures for Counselors. (3 h)

Appraisal, assessment, and diagnosis of personality, emotional, intellectual, and learning characteristics and disorders of clients in schools, colleges, and community human service agencies. Use of tests in counseling as an adjunct to clinical impressions. Newsome.

### CNS 737. Basic Counseling Skills and Techniques. (3 h)

Basic communication skills, helping relationships, and strategies for personal change. Issues and ethics in counseling. Newsome.

### CNS 738A. Counseling Practicum - School. (3 h)

Supervised experience for the development of individual and group counseling skills under individual and group supervision in a school or clinical mental health agency. Involvement in direct service work and activities similar to those of regularly employed professional staff. Henderson, Newsome. P - CNS 737.

### CNS 738B. Counseling Practicum - Clinical Mental Health. (3 h)

Supervised experience for the development of individual and group counseling skills under individual and group supervision in a school or clinical mental health agency. Involvement in direct service work and activities similar to those of regularly employed professional staff. Henderson, Newsome. P - CNS 737.

### CNS 739. Advanced Counseling Skills and Crisis Management. (3 h)

Topics covered will be advanced and specialized counseling interventions including crisis intervention, suicide prevention, and emergency management models. Students will be required to demonstrate appropriate skill level. P-CNS 737.

### CNS 740. Professional Orientation to Counseling. (3 h)

Covers the history, roles, organizational structures, ethics, standards, specializations, and credentialing in the profession of counseling. Public policy processes and contemporary issues are also considered. Gladding.

### CNS 741. Theories and Models of Counseling. (3 h)

Study of theories and approaches to professional counseling: psychoanalytic (Freud, Adler, Jung), person-centered (Rogers), existential (May, Frankl), behavioral (Skinner, Glasser), cognitive/rational (Ellis), holistic/systemic, eclectic. Professional orientation, issues, ethics, cultural pluralism, and trends in counseling. Anderson, Karr.

### CNS 742. Group Procedures in Counseling. (3 h)

An experiential and conceptual exploration of the psychological dynamics and interpersonal communication of small groups, including group structure, leadership models, group process and practice, stages of group development, group techniques, and ethical principles. Anderson.

### CNS 743. Career Development and Counseling. (3 h)

Vocational development throughout life; psychological aspects of work; occupational structure and the classifications of occupational literature; theories of vocational choice and their implications for career counseling. Newsome.

### CNS 744A. Counseling Internship I A. School. (2, 3 h)

Supervised counseling experience in a school, college, or community agency under a regularly employed staff member professionally trained in counseling. Observation of and active participation in direct service work to clients. Monitoring of audio or videotaped interviews. Case review. Henderson, Newsome, Anderson. P- CNS 738.

### CNS 744B. Counseling Internship I: Clinical Mental Health. (2, 3 h)

Supervised counseling experience in a school, college, or community agency under a regularly employed staff member professionally trained in counseling. Observation of and active participation in direct service work to clients. Monitoring of audio or videotaped interviews. Case review. Henderson, Newsome, Anderson. P- CNS 738.

### CNS 745A. Counseling Internship II A. School. (2, 3 h)

Supervised counseling experience in a school, college, or community agency under a regularly employed staff member professionally trained in counseling. Observation of and active participation in direct service work to clients. Monitoring of audio or videotaped interviews. Henderson, Newsome, Anderson. P- CNS 744: Internship I.

### CNS 745B. Counseling Internship II: Clinical Mental Health. (2, 3 h)

Supervised counseling experience in a school, college, or community agency under a regularly employed staff member professionally trained in counseling. Observation of and active participation in direct service work to clients. Monitoring of audio or videotaped interviews. Henderson, Newsome, Anderson. P- CNS 744: Internship I.

### CNS 746. Counseling Children. (3 h)

Theory and practice of counseling with children in schools and community agencies. Elementary school counseling; models, methods, and materials. Counseling children with special emotional, learning, psychological, or behavioral concerns. Henderson.

### CNS 747. Cultures and Counseling. (3 h)

The influence of culture in human development and in counseling relationships. A study of personal and ethnic diversity and commonality. Henderson.

### CNS 748. Life Span Development: Implications for Counseling. (3 h)

Examination of major theories and principles of human development across the life span, including physical, psychological, intellectual, social, and moral perspectives. Henderson.

### CNS 749. School Guidance and Counseling. (3 h)

The organization and management of comprehensive school guidance and counseling programs. Individual and group counseling, consultation, coordination, and collaboration in student services in schools. Program development in elementary, middle, and secondary schools. Henderson.



**CNS 750. The Vienna Theorists-Freud, Adler, Moreno and Frankl. (3 h)**

Examination of the original writings of four of the leading theorists of modern counseling, which is enhanced by a visit to the city in which they initially formulated their clinical ideas. Students read and discuss several original writings of each practitioner-Freud, Adler, Moreno, and Frankl-prior to and during a two-week stay in the Wake Forest University Flow House in Vienna during which they visit relevant historical sites and institutes. Staff.

**CNS 752. Human Services Administration. (3 h)**

This course will focus on the knowledge, theory, and skills used in the administrative aspects of the human services delivery systems including organizational management, supervision, strategic planning, budgeting, grant and contract negotiation, and legal/regulatory issues. The course also covers managing the professional development of staff, recruiting and managing volunteers, and advocacy techniques. P-CNS 737, 741, 742.

**CNS 753. Human Services Program Planning and Evaluation. (3 h)**

This course will focus on the range and characteristics of human services delivery systems and major conceptual models used to integrate prevention, maintenance, intervention, and rehabilitation and healthy functioning. The course includes the history of human services as well as the systematic analysis of service needs. The course also covers the selection of strategies or interventions and the evaluation of outcomes. Prerequisites, CNS 741, CNS 737 and CNS 742.

**CNS 754. Human Services Fieldwork. (1-3 h)**

Field experience is a learning experience in a human services delivery organization in which the student will complete 350 hours of on-site volunteer work with an agency. Students, university supervisors, and on-site partners will determine the student's role, activities, outcomes, and instructional needs based on placement site possibilities. Prerequisites- CNS 752 and CNS 753.

**CNS 755A. Counseling Internship III A. School. (2 h)****CNS 755B. Counseling Internship III B. Clinical Mental Health. (2 h)****CNS 758. Studies in Educational Leadership. (3 h)**

This course includes examination of contemporary leadership theory and its various applications in education. It includes field work and reflections (Service Learning). P-EDU 644L.

**CNS 760. Issues in School Counseling. (3 h)**

This course is designed to allow students to investigate current issues related to the practice of school counseling. The emphasis will be on identifying appropriate prevention responses to these issues. Counseling students only.

**CNS 762. Issues in Clinical Mental Health Counseling. (3 h)**

Examines specific issues related to clinical mental health counseling including, but not limited to, reimbursement, outcome evaluation, advocacy strategies, clinical mental health counselor roles and functions.

**CNS 763. Specialized Study in Counseling. (1-3 h)**

"Exploration of special topics or areas of practice in the field of counseling. a. School Guidance and Counseling h. Rehabilitation b. College Student Development Services Counseling i. Adult Development/ Aging c. Mental Health Counseling j. Religious Counseling d. Marriage and Family Counseling k. Health Counseling e. Business/Industry Counseling l. Multicultural Counseling f. Correctional Counseling m. Holistic Counseling g. Career Counseling n. Tests, Measurements and Interpretation .

**CNS 764. Creative Arts in Counseling. (1-3 h)**

Examines history, theories, processes, and techniques of using the creative arts in counseling with clients throughout the life span. Particular attention is given to the visual and verbal arts, such as drawing, imagery, photography, cartooning, cinema, movement, dance, literature, drama, and music.

**CNS 765. Addiction Counseling. (3 h)**

Introduces the concepts of chemical dependency, counseling procedures and techniques, and treatment considerations. The student has opportunities to apply models of chemical dependency counseling to hypothetical situations at various stages of substance use. Veach.

**CNS 766. Crisis Prevention and Response. (3 h)**

This course will present counseling approaches which effectively address crises. The course will examine the characteristics and impact of trauma and crisis and potential neurobiological responses. Students will gain knowledge and skills useful in theory-based prevention and response models and community-based strategies for a diverse society. Students will also explore counseling and human service contexts for application of assessment and intervention approaches in addressing specific crisis situations.

**CNS 767. Human Sexuality. (3 h)**

This course is designed for counseling students whose work will bring them into contact with clients experiencing problems and concerns with their sexuality. The course is designed to develop: a) students' knowledge base related to human sexuality, b) an understanding of the varied sexuality issues which may be encountered in professional counseling practice, c) students' skills in assessment and intervention skills with sexuality issues and d) increased awareness of one's personal perceptions, attitudes and affect related to sexuality issues. Course participants will become more effective in identifying, assessing, and intervening with human sexuality related counseling issues.

**CNS 768. PsychoPharmacology for Counselors. (3 h)**

Students will learn the basic principles of psychopharmacology, pharmacokinetics, and neurobiology as they pertain to their role as a professional counselor. They will learn how psychopharmacological drugs are classified, prescribed, and managed. The information presented in this course will prepare student to function as knowledgeable members of multi-disciplinary treatment teams serving clients seeking counseling services. Finally, students will gain knowledge about the important and complex ethical and legal issues that surround the use of psychopharmacological drugs.

**CNS 769. Advanced Counseling in a Diverse Society. (3 h)**

An advanced investigation into the complex elements of racism, social justice, and advocacy in the counseling relationship and beyond. An exploration of systemic disparities (ex. food deserts and health care) as well as anti-racist perspectives and actions in a diverse society, further promoting an in-depth personal and professional examination of implicit and explicit biases.

**CNS 770. Classification of Mental and Emotional Disorders. (3 h)**

Analyzes healthy and unhealthy personality, as well as developmental and situational problems in adjustment. Studies the classification of mental disorders, as defined by the American Psychiatric Association in the most recent edition of the Diagnostic and Statistical Manual of Mental Disorders. Examines appropriate ways in which diagnosis can be utilized by counselors to explore personality and systemic interventions for career, educational, and relationship concerns.



**CNS 771. Clinical Mental Health Counseling. (3 h)**

History, philosophy, organization, management, and delivery of counseling services in various clinical mental health settings. Preventative, developmental, and remedial strategies for use with various populations. Newsome.

**CNS 772. Marriage and Family Systems. (3 h)**

Study of the institutions of marriage and the family from a general systems perspective. Exploration of how changes in developmental and situational aspects of the family life cycle influence individuals within the systems of marriage and the family. Both horizontal and vertical dimensions of change are focused on through the use of genograms. Different forms of family lifestyles, such as dual career, single parent, and blended are covered. Gladding.

**CNS 773. Family Counseling. (3 h)**

Examination of the philosophy and goals of seven major theories of family counseling (Bowenian, Adlerian, psychodynamic, experiential/humanistic, behavioral, structural, strategic) as well as the development of the profession of family counseling from a historical and current trends perspective. Differences between family counseling and individual/group counseling are highlighted and ethical/legal considerations for working with family units are stressed. Techniques associated with theories are demonstrated through video and play simulations. Research methods for gathering data on families are highlighted. Gladding.

**CNS 774. Marriage Counseling. (3 h)**

Study of the philosophy and goals of six main theories of marriage counseling (psychoanalytic, social learning, Bowenian, structural-strategic, experiential/humanistic, and rational-emotive) and the techniques associated with each. Historical and current trends associated with the field of marriage counseling are explored, along with related issues such as premarital counseling, family-of-origin influences within marriage, and widowhood. Appropriate marriage assessment instruments, research methods, and ethical/legal questions involved in marriages counseling are addressed. Gladding.

**CNS 775. Marital and Family Health and Dysfunctionality. (3 h)**

Examines system and individual dynamics associated with marital and family health and dysfunctionality. Longitudinal research on factors connected with healthy, long-term marriages and functional family life are explored. Interactive patterns that lead to such marital and family dysfunctionality as spouse and child abuse, anorexia nervosa, addictive disorders, and dependency are examined. Gladding.

**CNS 776. Assessment and Treatment Planning in Addictions. (3 h)**

Examines screening, assessment, and diagnosis of addiction and co-occurring disorders. P-CNS 765, POI or a master's degree in the counseling field.

**CNS 777. Addictions Counseling Skills. (3 h)**

Explores the development of skills for individual and group counseling with persons diagnosed with addictive and co-occurring disorders.

**CNS 778. Addiction and the Family. (3 h)**

Explores the influence of addiction on family systems. Covers knowledge and skills for assisting individuals and families with substance abuse and addiction. P-CNS 765, POI or a master's degree in the counseling field.

**CNS 780. Professional, Ethical and Legal Issues in Counseling. (2 h)**

Provides an overview of the critical professional issues in counseling with emphasis on current ethical, legal, and values-related questions and the relationship of these issues to the counselor's role in training, supervision, consultation, appraisal, and research. P-Advanced graduate standing or permission of instructor. Anderson, Henderson.

**CNS 782. Developmental Counseling Psychology. (3 h)**

Theoretical, research, and methodological aspects of a developmental/holistic/systems framework for counseling. Integration and application of major theories and approaches to counseling. Staff.

**CNS 786. Consultation and Program Development in Counseling. (2 h)**

Consultation theory and process. Consultation with families, schools, colleges, and community agencies. Models for facilitating change in human systems. Anderson, Henderson.

**CNS 790. Professional Identity Capstone Course. (2 h)**

Review and application of counseling skills, settings, practice parameters and other current issues necessary to integrate students into the profession of counseling. P-CNS 744.

## Faculty

Program Director Mark B. Scholl

Professor Emeriti Donna A. Henderson, Deborah W. Newsome

Professors Samuel T. Gladding, José A. Villalba

Associate Professors Erin E. Binkley, Philip B. Clarke, Seth C.W. Hayden,

Nathaniel N. Ivers, Jennifer, L. Rogers, Mark B. Scholl

Assistant Professors Donald R. Casares, Jamie E. Crockett, Isabell C.

Farrell, Michelle R. Ghoston, David A. Johnson

Associate Teaching Professors Allison M. Forti, Tammy H. Cashwell

Assistant Teaching Professors Nikki C. Elston, J. Robert Nations, Kenneth W. Simington

Visiting Assistant Professor Amy L. Grybush, Sarah A. Moore, Farren A.

Stackhouse, Brittany E. Wyche

Clinical Program Manager Carla Emerson

## Counseling, MA

### Degree Requirements

The Master of Arts degree in Counseling is awarded to candidates who successfully complete a minimum of 60 hours in a planned and directed program of study. Courses required by the program cannot be taken as Pass/Fail.

For additional degree requirements, see Requirements for Degrees.

## Documentary Film Program (DOC)

### Master of Fine Arts

### Master of Arts

#### Overview

The Documentary Film Program offers an MFA degree through a two-year course of study and an MA through a one-year course of study. The program admits students on a full-time basis only.

The comprehensive curriculum is designed not only to equip students with the skill set needed to produce professional quality films, but also to develop a respect for the traditions of the craft, an understanding of the economic aspects of the industry, and the intellectual discipline required to translate a creative vision into film. While this is a skills intensive curriculum, it is also a plan of study that emphasizes the social awareness elements that lie at the heart of the documentary tradition. The faculty believes it is imperative to impart to students the power and responsibility documentary filmmakers have in a world increasingly dependent on the moving image to educate, inform, and affect change.

## Programs

- Documentary Film, MA
- Documentary Film, MFA

## Courses

### DOC 701. Internship I. (1.5 h)

Internships may be taken for 1.5 credits on a pass/fail basis when approved by faculty members. These internships provide students the opportunity for experiential learning at production houses, television networks, public television stations, and at other facilities deemed useful as well as with independent producers.

### DOC 702. Internship II. (1.5 h)

Internships may be taken for 1.5 credits on a pass/fail basis when approved by faculty members. These internships provide students the opportunity for experiential learning at production houses, television networks, public television stations, and at other facilities deemed useful as well as with independent producers.

### DOC 703. Internship. (3 h)

Internships provide students the opportunity for experiential learning at production houses, television networks, public television stations, and at other facilities deemed useful as well as with independent producers.

### DOC 713. Documentary Storytelling I. (3 h)

The course provides an introduction to the fundamental theory and craft of non-fiction visual storytelling and familiarizes students with concepts such as drama, structure, story development and visual style.

### DOC 715. Cinematography and Sound. (3 h)

Through a combination of lectures, film screening and hands-on demonstrations, this course will familiarize students with the basics of documentary shooting, lighting, and sound gathering.

### DOC 717. Fundamentals of Documentary Editing. (3 h)

Through a combination of lectures, film screenings, hands-on demonstrations, and assignments, this course familiarizes students with the basics of documentary editing.

### DOC 718. Social Media and Marketing in the Creative Arts. (3 h)

This course examines how social media is changing not just what content creators produce, but also the way creators engage with their audience by using social media and marketing techniques to drive attention to their work and enhance their overall brand. Through guest lectures, case studies and hands-on production - students will study each social media platform, learn how it's being used and see how it can be leveraged to enhance all aspects of the creative arts. Course may be offered on campus or online.

### DOC 722. Documentary Storytelling II. (3 h)

This course teaches students how to research, conceptualize and develop a non-fiction story idea. Students receive instruction on effective research strategies, idea development, production planning, and proposal writing and pitching. P-DOC 713, 715, 717.

### DOC 724. Advanced Story Editing. (3 h)

This course builds upon the storytelling skills learned in the Foundations of Story Editing course and complements the production techniques learned in Cinematography and Sound. Special emphasis will be placed on the aesthetics of editing and other post-production techniques. P-DOC 717.

### DOC 726. Advanced Sports Storytelling. (3 h)

Introduces students to both the theoretical and technical aspects of non-fiction sports storytelling. Students will examine both historical and contemporary examples of sports storytelling, including various styles of documentaries, branded and commercial content, social media and web-based content, and podcasts. P-DOC 717.

### DOC 728. Documentary History. (3 h)

Acquaints students with the historical development of documentary film from its roots in 19th-century art forms to the present. Examines various styles and techniques of documentary and analyzes the contribution of the documentary as a persuasive means of communication to achieve social and political goals. Open to all Wake Forest University graduate students with POI.

### DOC 730. Sports, Culture and Society. (3 h)

Through films, case studies and discussions with sports professionals, media industry leaders and scholars we will look at how sports helps frame our common understanding of society's biggest social issues including race, gender, and human rights.

### DOC 733. The Business of Sports Media. (3 h)

Students will get a high level understanding of the business of sports media and how the digital revolution is changing the game for content creators, leagues and teams. Through lectures, current periodicals, projects and guest speakers, students will learn to look beyond the final score and better understand the entire sports communication ecosystem.

### DOC 735. Documentary Law and Ethics. (3 h)

Provides students with the opportunity to explore the ethical issues that can arise in documentary filmmaking. The discussion points will evolve from the in-depth examination of a select group of films and directors.

### DOC 737. Documentary Storytelling III. (3 h)

The class focuses on advanced principles of writing, producing, directing and editing documentary. Theoretical, aesthetic, technical and ethical aspects of the creative non-fiction storytelling process will be the focus. The class format will be a combination of theory and practice as it relates to the dramaturgical process of filmmaking. P-DOC 713, 715, 717, 728, 722, 750.

### DOC 746. Documentary Storytelling IV. (3 h)

The course combines lectures, screenings, and exercises to build a technical and aesthetic foundation in digital post-production. Special emphasis will be placed on advanced visual storytelling techniques—including continuity, pacing, character development and dramatic structure. Students will also explore various distribution strategies and transmedia applications P-DOC 713, 715, 717, 728, 722, 724, 750, 735, 737, 748.

### DOC 748. Creative Thesis Project. (1-9 h)

Students will work under faculty supervision on their creative thesis projects.

### DOC 750. The Imagination Project. (3 h)

Students will produce short films, digital study guides or E-books and/or other types of multimedia materials on important social, political, cultural and economic issues. The course, structured around digital media projects, provides opportunities for students to immerse themselves in a single topic and interact with scholars from various disciplines. The topics will vary each year. P-DOC 713, 715, 717.

### DOC 751. Pedagogy and Curriculum. (3 h)

Provides an understanding of pedagogical practices and major theories of curriculum and a foundation for students interested in pursuing careers in academe.

**DOC 753. Individual Study. (1-3 h)**

For students who wish to perform independent study in a cognate area with a professor from the Documentary Film Program or another program. May be repeated for credit for a maximum of 9 hours.

**DOC 755. Entrepreneurship Education in Nonfiction Filmmaking. (3 h)**

This course will provide students with the knowledge and skills to help them create their own creative arts venture and help them design and teach a course in entrepreneurship in the creative arts, particularly digital media and non-fiction filmmaking.

**DOC 764. Individual Study. (1-3 h)**

For students who wish to perform independent study in a cognate area with a professor from the Documentary Film Program or another program. May be repeated for credit for a maximum of 9 hours.

**DOC 766. Teaching Practicum. (3 h)**

Students work closely with Documentary Film program faculty during the teaching of an undergraduate course. Students participate in the design and development of course material and observe classroom and organizational aspects of teaching in an apprenticeship role.

**DOC 780. Special Topics. (3 h)**

Intensive study of selected topics in documentary film. Topics may be drawn from any content area of documentary studies and production. May be repeated for credit for a maximum of 6 hours.

## Faculty

Program Director Cara Pilson

Professor Sandra Dickson

Professor of Practice Peter Gilbert

Associate Professor of Practice Christopher Sheridan

Assistant Teaching Professor Christopher Zaluski

## Documentary Film, MA

### Degree Requirements

The MA requires 33 hours. Students take required courses in writing, direction, and production with an emphasis on sports storytelling. In addition, they explore the social, political, and cultural impacts of sports as well as the business of sports media. All students develop and produce a short thesis film.

For additional degree requirements, see Requirements for Degrees.

## Documentary Film, MFA

### Degree Requirements

The MFA requires 48 hours. The first year of the program is dedicated to documentary core courses such as research, theory, writing, direction, and production and the development of the thesis film. The second year builds on the foundation of the first year of study with courses in entrepreneurship and pedagogy. Students may also take elective courses in an area of special interest.

For additional degree requirements, see Requirements for Degrees.

## Education (EDU)

### Master of Arts in Education Master of Educational Studies

#### Overview

The Department of Education offers professional graduate programs in teacher education. The goals and requirements for these programs are available in the Licensure Office of the department. Candidates for the Master of Arts in Education degree seeking a North Carolina Class M Teacher's License must possess a North Carolina Class A Teacher's License or its equivalent. Master Teacher Fellows are not expected to hold a teacher's license when they enter the program.

#### Initial Licensure Program

Master Teacher Fellows (MTF). This program involves coursework and fieldwork, including one semester of full-time student teaching. It is offered at the Secondary (grades 9-12) and Elementary (grades K-6) levels. For secondary education, students must have a bachelor's degree (or equivalent coursework) in one of our content areas: English, Mathematics, Science (Biology, Chemistry, or Physics), or Social Studies. The secondary program lasts thirteen months, and the elementary program lasts 1.5 years.

#### Advanced Licensure Program

Master Teacher Associates (MTA). This program provides an extension of the candidate's current teaching license. It is also thirteen months and it includes coursework and other requirements to foster the candidate's further development in content, pedagogy, and leadership. It is offered for either Elementary or Secondary levels.

#### Non-Licensure Program

Master of Educational Studies (MES). This program is for students who are interested in education but choose not to seek a teaching license.

#### Certificate Program

The Curriculum, Instruction, and Assessment Certificate is appropriate for those with elementary, secondary, or higher education interest.

## Programs

- Education, MAED
- Education, MDiv/MAED
- Curriculum, Instruction, and Assessment, Certificate

## Courses

#### EDU 601. Microcomputer and Audiovisual Literacy. (3 h)

Introduction to microcomputers for educators and other users, emphasizing familiarity with computers, use and evaluation of software, and elementary programming skills. Experience with audiovisual materials and techniques is included.

#### EDU 602. Production of Instructional Materials. (3 h)

Methods of producing instructional materials and other technological techniques. P-EDU 601 and senior or graduate standing.

#### EDU 603. History of Western Education. (3 h)

Educational theory and practice from ancient times through the modern period, including American education.

**EDU 604. Social Justice Issues in Educ. (3 h)**

This course facilitates exploration of issues of social justice and schooling from both theoretical and practical perspectives. It includes a focus on multicultural education, global awareness, issues of equity in school funding, urban and rural education, poverty, and marginalized populations.

**EDU 605. The Sociology of Education. (3 h)**

Study of contemporary educational institutions. Examines such issues as school desegregation, schooling and social mobility, gender equity, and multiculturalism.

**EDU 606. Studies in the History and Philosophy of Education. (3 h)**

Study of selected historical eras, influential thinkers, or crucial problems in education. Topics announced annually.

**EDU 610. Race, Class, and Gender in a Color-blind Society. (3 h)**

Examines issues surrounding race, class, and gender in the U.S. Topics include income and wealth, theories of discrimination, public education, gender bias, and patterns of occupational and industrial segregation.

**EDU 612. Teaching Children with Special Needs. (3 h)**

Survey of the various types of learning problems commonly found in elementary children. Students observe exemplary programs, tutor children with special needs, and attend seminars on effective instructional techniques.

**EDU 613. Human Growth and Development. (3 h)**

Theories of childhood and adolescent development, their relation to empirical research, and their educational implications. Consideration of the relation to learning of physical, intellectual, emotional, social, and moral development in childhood and adolescence.

**EDU 614L. Elementary Teaching Rounds. (2 h)**

Involves practical experiences in elementary classrooms with focus on pedagogy and content. Weekly public school experience and seminar. Pass/Fail.

**EDU 637. TESOL Linguistics. (3 h)**

An introduction to the theoretical and practical linguistics resources and skills for teaching English to speakers of other languages (TESOL) within the US or abroad.

**EDU 641. Teaching Elementary Literacy. (3 h)**

Methods and materials for implementing research-based strategies for teaching and assessing reading, writing, listening and speaking in grades K-6.

**EDU 642. Teaching Elementary Social Studies. (3 h)**

Methods and materials for teaching K-6 social, studies, including adaptations for diverse and exceptional learners. Also includes experience in diverse elementary classrooms.

**EDU 643. Teaching Elementary STEM (Science, Technology, Engineering, Mathematics). (3 h)**

Methods and materials for teaching STEM subjects in elementary schools, emphasizing inquiry teaching and learning, and including adaptations for diverse and exceptional learners.

**EDU 650L. Student Teaching: Elementary. (9 h)**

Supervised teaching experience in grades K-6. Full-time. Service Learning. Satisfactory/Unsatisfactory.

**EDU 651. Adolescent Psychology. (4 h)**

Introduction to theories of adolescent psychology as related to teaching and counseling in various settings. Readings emphasize researchers' suggestions for parenting, teaching, and counseling adolescents between the ages of 13 and 19.

**EDU 654. Content Pedagogy. (3 h)**

Methods, materials, and techniques used in teaching particular secondary subjects (English, mathematics, science, second languages, social studies).

**EDU 654L. Content Pedagogy Rounds. (2 h)**

Practical experiences in classrooms with focus on pedagogy and content. Weekly public school experience and seminar. Satisfactory/Unsatisfactory.

**EDU 655. Professional Seminar: Elementary. (3 h)**

Analysis and discussion of problems and issues in elementary school teaching. Includes examination of research and best practice strategies in curriculum, instruction, assessment, diverse learners, classroom management and leadership. Satisfactory/Unsatisfactory.

**EDU 661. Foundations of Education. (3 h)**

Philosophical, historical, and sociological foundations of education, including analysis of contemporary issues and problems.

**EDU 664L. Student Teaching Internship. (9 h)**

Supervised teaching experience in grades 9-12 (K-12 for foreign language). Full-time, 15-week field experience. Includes a weekly on-campus seminar. Satisfactory/Unsatisfactory.

**EDU 665. Professional Development Seminars. (3 h)**

Analysis and discussion of problems and issues in secondary school teaching. Examination of research and practice-based strategies. Pass/Fail only.

**EDU 668. Professional Experience in Education. (3 h)**

This course offers students a placement in an educational setting under the supervision of a professional mentor. During this internship, students examine a critical topic in a local school, a community agency, a nonprofit organization, or other educational setting.

**EDU 674. Student Teaching Seminar. (1.5 h)**

Analysis and discussion of practical problems and issues in the teaching of particular secondary subjects (English, mathematics, science, second languages, social studies). Emphasis is on the application of contemporary instructional methods and materials. Includes prior (intercession) 20 hours field experience requirement.

**EDU 677. Literacy in the 21st Century. (3 h)**

This course examines the impact of emerging literacy trends on the 21st Century students in a digital global world. There is specific focus on engaging reluctant and struggling readers.

**EDU 681. Special Needs Seminar. (1 h)**

Analysis and discussion of practical problems and issues in the teaching of special needs students in the secondary classroom. Topics include classroom management, reading and writing in the content area, inclusion, and evaluation. Satisfactory/Unsatisfactory.

**EDU 682. Reading and Writing in the Content Areas. (2 h)**

Survey of methods for teaching reading and writing to help students learn in the various content areas, and of techniques for adapting instruction to the literacy levels of students.

**EDU 683. Classroom Management Seminar. (1 h)**

Examination of research and practice-based strategies for secondary school classroom management and discipline. Satisfactory/Unsatisfactory.

**EDU 684. Creative Research Methodologies. (2 h)**

Investigation of source materials, printed and manuscript, and research methods which are applied to creative classroom experiences and the preparation of research papers in literature and social studies.



**EDU 685. Diversity Seminar. (1 h)**

Exploration of multi-cultural issues and relevant Spanish language and cultural teaching practices essential for classroom communication. Satisfactory/Unsatisfactory.

**EDU 687. Tutoring Basic Writing. (2 h)**

Review of recent writing theory applicable to teaching basic writers (including the learning disabled and non-native speakers). Special attention to invention strategies and heuristic techniques. Includes experience with tutoring in the Writing Center. (Credit not allowed for both EDU 387 and ENG 387.)

**EDU 688. Writing Pedagogy. (3 h)**

This course blends theory and practice, providing students from all content areas with a foundational understanding of writing pedagogy methods and approaches. Topics of study will include writing across the curriculum, writing research and writing assessment.

**EDU 690. Methods and Materials for Teaching Foreign Language. (3 h)**

Survey of the basic materials, methods, and techniques of teaching foreign languages in the elementary and middle grades. Emphasis is on issues and problems involved in planning and implementing effective second language programs in grades K-6. Spring only.

**EDU 693. Individual Study. (1-3 h)**

A project in an area of study not otherwise available in the department; permitted upon departmental approval of petition presented by a qualified student. May be repeated for credit.

**EDU 695. Teaching Diverse Learners. (3 h)**

This course addresses diversity in the classroom, particularly the needs of English Language Learners (ELL) and Exceptional Children (EC). It examines differentiated instruction with appropriate instructional and behavioral strategies to meet the needs of all students.

**EDU 698. Seminar in Secondary Education. (1 h)**

Investigation of the issues that form the context for teaching in secondary schools.

**EDU 705. Sociology of Education. (3 h)**

Study of contemporary society and education, including goals and values, institutional culture, and the teaching/learning process.

**EDU 707. Educational Policy & Practice. (3 h)**

Examination of the impact of race, ethnicity, and social class on educational achievement and attainment, including consideration of philosophical, historical, and sociological issues.

**EDU 708. School and Society. (3 h)**

Study of continuity and change in educational institutions, including analysis of teachers, students, curriculum, assessment and evaluation, and contemporary problems and reform movements.

**EDU 711. Reading Theory and Practice. (3 h)**

Study of current reading theory and considerations of its application in the teaching of reading, grades K-12.

**EDU 712. Learning & Cognitive Science. (3 h)**

Examination of patterns of human development, and theories and principles of cognition applied to teaching and learning.

**EDU 713. Classroom Climate: Classroom Management and Conflict Resolution. (3 h)**

This course focuses on the development and maintenance of a safe, orderly, and respectful classroom environment in conjunction with advanced pedagogical strategies. Students learn classroom management and conflict resolution techniques while considering their own teaching practices.

**EDU 714. Advanced Content Pedagogy. (3 h)**

This course assists students in developing skills for content-specific teaching of critical thinking and problem solving while building upon existing pedagogical content knowledge through collaboration that is rooted in current practice, and addressing state and national standards.

**EDU 715. Action Research. (3 h)**

Individual planning for action research study on a specific pedagogical topic in a school setting. Includes definition of research problem, literature review, and proposal for collection of field data, and reporting of results.

**EDU 716. Professional Growth Seminar. (3 h)**

Students will provide reflections on their teaching experiences, report the results of their action research, and define their professional goals.

**EDU 717. Instructional Design, Assessment and Technology. (3 h)**

Introduction to contemporary technologies and their applications for supporting instruction, assessment, professional practice, and school leadership.

**EDU 718. Adv Multimedia Tech in Educ. (3 h)**

This course develops advanced technology skills and knowledge of how to incorporate technology tools into pedagogical practice through a variety of assignments including an implementation project.

**EDU 721. Educational Research. (3 h)**

Theory, construction, and procedures of empirical research on teaching and learning. Analysis and evaluation of research studies.

**EDU 723. Educational Statistics. (3 h)**

Descriptive, inferential, and nonparametric statistical procedures involved in educational research. Computer methods for statistical analysis.

**EDU 725. Action Research II. (1 h)**

Reporting of results of action research study on pedagogical topic. Includes oral and written presentations.

**EDU 730L. Service Learning: Tutoring. (1 h)**

Practical experiences in classrooms with focus on tutoring and assisting with preparation for standardized testing. Includes field work and reflection. Pass/Fail only.

**EDU 731. Foundations of Curriculum Development. (3 h)**

Philosophical, psychological, and social influences on the school curriculum. Examination of both theoretical and practical curriculum patterns for the modern school. Processes of curriculum development, including the leadership function of administration and research.

**EDU 733. Supervision of Instruction. (3 h)**

Analysis of various techniques of supervision: orientation of teachers, in-service education, classroom observation, individual follow-up conferences, ways to evaluate instruction, and methods for initiating changes.

**EDU 735. Assessment of Teaching and Learning. (3 h)**

This course focuses on the assessment of learning from a theoretical and practical perspective. It includes an understanding of formative and summative assessments, traditional and non-traditional assessments, standardized testing, and the interpretation and application of test data.

**EDU 747. Research and Trends in the Teaching of Foreign Languages. (3 h)**

Study of current trends and issues in foreign language education. Research topics include language and linguistics, culture, and technology.



**EDU 751. Adolescent Psychology. (3 h)**

Introduction to theories of adolescent psychology as related to teaching and counseling in various settings. Readings emphasize researchers' suggestions for parenting, teaching, and counseling adolescents between the ages of 13 and 19.

**EDU 758. Studies in Educational Leadership. (3 h)**

Examination of contemporary leadership theory and its various applications in education.

**EDU 764. Seminar in Curriculum and Instruction. (3 h)**

Exploration of special topics in the field of curriculum and instruction.

**EDU 781. Methodology and Research. (3 h)**

Advanced study of the methods and materials of a specific discipline (English, French, Spanish, social studies, mathematics, science) in the curriculum with special attention directed to the basic research in the discipline. Includes 20 hours field experience/project.

**EDU 783. Readings and Research in Education. (1-3 h)**

Independent study and research on topics relevant to the student's field of concentration which may include a special reading program in an area not covered by other courses or a special research project. Supervision by faculty members. Hours of credit to be determined prior to registration.

**EDU 784. Research in Writing. (3 h)**

Investigation of selected topics related to the writing process.

**EDU 785. The Teaching of Writing. (3 h)**

Examination of the theories and methods of instruction of writing.

**EDU 787. Teaching Advanced Placement. (2, 3 h)**

An investigation of the content of and the pedagogy appropriate to advanced placement courses in the various disciplines. Summer only.

**EDU 788. Teaching Foreign Languages in the Elementary Grades. (2 h)**

Intensive period of observation and instruction in an elementary school setting with a foreign language specialist. Methods for development of listening, speaking, reading, writing, and cultural awareness using content-based instruction and thematic units.

**Faculty**

Program Director Leah McCoy

Chair Alan Brown

Professors Adam Friedman, Leah P. McCoy, Linda N. Nielsen

Associate Professors Alan Brown, Donal Mulcahy

Assistant Professors Debbie French, Danielle Parker-Moore

**Education, MAED**

**Degree Requirements**

**Course Requirements**

The Master Teacher Fellows program requires 42-48 semester hours. The Master Teacher Associates and Master of Educational Studies programs each require 36 semester hours. The Curriculum, Instruction, and Assessment Certificate requires 15 credit hours. Field-based courses, including the following are offered only as pass/fail:

Code	Title	Hours
EDU 614L	Elementary Teaching Rounds	2
EDU 650L	Student Teaching: Elementary	9
EDU 664L	Student Teaching Internship	9
EDU 665	Professional Development Seminars	3

All remaining coursework must be taken for a grade. All courses must be approved, and an overall grade-point-average of B must be maintained. The course requirements must be completed in courses numbered 600 or above, with at least half of the total number of required hours in courses numbered 700 or above.

**Research Competence in Teacher Education**

Research competence in Teacher Education includes a set of three courses that include both research studies and personal reflection.

**Licensure Only Coursework**

Students who wish to enroll in graduate courses to obtain or renew a license may seek admission through the Licensure Officer of the Department of Education. The GRE is not required.

A copy of the Title II Federal Report Card may be obtained in the Licensure Office of the department.

For additional degree requirements, see Requirements for Degrees.

**English (ENG)**

**Master of Arts**

**Overview**

This degree offers opportunities for study and research in most of the major areas of both British and American literature, as well as in creative writing, writing-rhetorical studies, and in the English language.

The courses for graduates only (numbered 700 or above) stress independent study and research out of which theses may develop. With approval of the graduate committee, students may take one or two related courses in other departments.

Applicants are expected to hold an undergraduate degree in English from an accredited institution. This major should consist of a well-rounded selection of courses demonstrating significant exposure to the range of literatures written in English and to ideas of literary history and interpretation.

**Programs**

- English, MA
- Medieval and Early Modern Studies, Certificate

**Courses**

**ENG 601. Individual Authors. (3 h)**

Study of selected work from an important American or British author. Staff.

**ENG 602. Ideas in Literature. (3 h)**

Study of a significant literary theme in selected works. Staff.

**ENG 604. History of the English Language. (3 h)**

Survey of the development of English syntax, morphology, and phonology from Old English to the present, with attention to vocabulary growth. Overing.

**ENG 605. Old English Language and Literature. (3 h)**

Introduction to the Old English language and a study of the historical and cultural background of Old English literature, including Anglo-Saxon and Viking art, runes, and Scandinavian mythology. Readings from Beowulf and selected poems and prose. Overing.

**ENG 606. Sp Top in Rhetoric and Writing. (1.5, 3 h)**

Study of significant rhetorical or writing theories and practices focused on one area of study.

**ENG 608. Beowulf. (3 h)**

This course offers an intensive study of the poem, with emphasis on language, translation skills and critical contexts.

**ENG 609. Modern English Grammar. (3 h)**

A linguistics approach to grammar study. Includes a critical exploration of issues such as grammatical change and variation, the origins and effects of grammar prescriptions/proscriptions, the place of grammar instruction in education, and the politics of language authority.

**ENG 610. The Medieval World. (3 h)**

ENG 610 The Medieval World. (3h) Examines theological, philosophical and cultural assumptions of the Middle Ages through the reading of primary texts. Topics include Christian providential history, drama, devotional literature, the Franciscan controversy, domestic life and Arthurian romance.

**ENG 611. The Legend of Arthur. (3 h)**

The origin and development of the Arthurian legend in France and England with emphasis on the works of Chretien de Troyes and Sir Thomas Malory. Sigal.

**ENG 612. Medieval Poetry. (3 h)**

The origin and development of poetic genres and lyric forms of Middle English. Sigal.

**ENG 613. The Roots of Song. (3 h)**

Interdisciplinary investigation of poetry and song in the Middle Ages and early Renaissance. Study of the evolution of poetic and musical genres and styles, both sacred and secular. Students must complete a project or projects on the technical or theoretical aspects of early song.

**ENG 615. Chaucer. (3 h)**

Emphasis on The Canterbury Tales and Troilus and Criseyde, with some attention to minor poems. Consideration of literary, social, religious, and philosophical background. Sigal.

**ENG 619. Virgil and His English Legacy. (3 h)**

Study of Virgil's Eclogues, Georgics, and selected passages of the Aeneid, and their influence on English literature, using translations and original works by writers of the sixteenth through the eighteenth centuries, including Spenser, Marlowe, Milton, Dryden, and Pope. Knowledge of Latin not required. Ettin.

**ENG 620. British Drama to 1642. (3 h)**

British drama from its beginnings to 1642, exclusive of Shakespeare. Representative cycle plays, moralities, Elizabethan and Jacobean tragedies, comedies, and tragicomedies. Staff.

**ENG 623. Shakespeare. (3 h)**

Thirteen representative plays illustrating Shakespeare's development as a poet and dramatist. Valbuena.

**ENG 625. Sixteenth-Century British Literature. (3 h)**

Concentration on the poetry of Spenser, Sidney, Shakespeare, Wyatt, and Drayton, with particular attention to the sonnets and the Faerie Queene. Staff.

**ENG 626. Studies in Renaissance Literature. (3 h)**

Selected topics in Renaissance literature. Consideration of texts and their cultural background. Staff.

**ENG 627. Milton. (3 h)**

The poetry and selected prose of John Milton with emphasis on Paradise Lost. Milton.

**ENG 628. Seventeenth-Century British Literature. (3 h)**

Poetry of Donne, Herbert, Vaughan, Marvel, Crashaw, prose of Bacon, Burton, Browne, Walton. Consideration of religious, political, and scientific backgrounds. Staff.

**ENG 630. Restoration and Eighteenth Century British Literature. (3 h)**

ENG 630 Restoration and 18th Century British Literature. (3h) Representative poetry and prose, exclusive of the novel, drawn from Addison, Steele, Defoe, Swift, Pope, Johnson, and Boswell. Consideration of cultural backgrounds and significant literary trends.

**ENG 633. Jane Austen. (3 h)**

An intensive study of the works of the British novelist Jane Austen, and her cultural contexts.

**ENG 635. Eighteenth-Century British Fiction. (3 h)**

Primarily the fiction of Defoe, Richardson, Fielding, Smollett, Sterne, and Austen. Staff.

**ENG 636. Restoration and Eighteenth-Century British Drama. (3 h)**

British drama from 1660 to 1780, including representative plays by Dryden, Etherege, Wycherley, Congreve, Goldsmith, and Sheridan. Kairoff.

**ENG 637. Studies in Eighteenth-Century British Literature. (3 h)**

Selected topics in eighteenth-century literature. Consideration of texts and their cultural background. Staff.

**ENG 638. Studies in Gender and Literature. (3 h)**

Thematic and/or theoretical approaches to the study of gender in literature.

**ENG 639. Studies in Sexuality and Literature. (3 h)**

Thematic and/or theoretical approaches to sexuality within literary studies.

**ENG 640. Studies in Women & Literature. (3 h)**

ENG 640 Studies in Women and Literature. (3h) Women writers in Society.

**ENG 641. Literature and the Environment. (3 h)**

ENG 641 Literature and the Environment This course studies the relationship between environmental experience and literary representation.

**ENG 642. Writing Center Pedagogy. (3 h)**

Introduction to composition pedagogy and writing center theory and practices, with special emphasis on one-to-one and small group peer tutoring techniques.

**ENG 644. Studies in Poetry. (3 h)**

Selected topics in poetry.

**ENG 645. Studies in Fiction. (3 h)**

Selected topics in fiction.

**ENG 646. Studies in Theatre. (3 h)**

Selected topics in theatre.

**ENG 647. Internship in the Major. (1.5 h)**

Internship that involves both hands-on experience and academic study. Students will partner with a literature faculty member to integrate work in the community and engagement with his or her academic plan of study.

**ENG 648. English Studies and the Professions. (1.5 h)**

A practicum course focused on career design and career planning, specific to career options in humanities fields. The course will broaden awareness of career opportunities available to English graduate students. Pass-fail only. Cannot be repeated.

**ENG 650. British Romantic Poets. (3 h)**

A review of the beginnings of Romanticism in British literature, followed by a study of Wordsworth, Coleridge, Byron, Keats, and Shelley; collateral reading in the prose of the period. Wilson.

**ENG 651. Studies in Romanticism. (3 h)**

Selected topics in European and/or American Romanticism with a focus on comparative, interdisciplinary, and theoretical approaches to literature.

**ENG 653. Nineteenth-Century British Fiction. (3 h)**

Representative major works by Dickens, Eliot, Thackeray, Hardy, the Brontës, and others. Staff.

**ENG 654. Victorian Poetry. (3 h)**

A study of the Brownings, Tennyson, Hopkins, and Arnold or another Victorian poet. Staff.

**ENG 656. Literature of the Caribbean. (3 h)**

ENG 656 Literature of the Caribbean. (3h) Readings include significant works by authors from the Caribbean and authors writing about the Caribbean. Critical, historical, and cultural approaches are emphasized. All texts are in English.

**ENG 657. Studies in Chicano/a Lit.. (3 h)**

Writings by Americans of Mexican descent in relation to politics and history. Readings in literature, literary criticism, and socio-cultural analysis.

**ENG 658. Postcolonial Literature. (3 h)**

A survey of representative examples of postcolonial literature from geographically diverse writers, emphasizing issues of politics, nationalism, gender, and class.

**ENG 659. Studies in Postcolonial Literature. (3 h)**

Examination of themes and issues in postcolonial literature, such as: globalization, postcolonialism and hybridity, feminism, nationalism, ethnic and religious conflict, the impact of the Cold War, and race and class.

**ENG 660. Studies in Victorian Literature. (3 h)**

Selected topics such as development of genres, major authors and texts, cultural influences. Reading in poetry, fiction, autobiography, and other prose. Staff.

**ENG 661. Literature and Science. (3 h)**

Literature of and about science. Topics vary and may include literature and medicine, the two-culture debate, poetry and science, nature in literature, the body in literature.

**ENG 662. Irish Literature in the Twentieth-Century. (3 h)**

A study of modern Irish literature from the writers of the Irish Literary Renaissance to contemporary writers. Course consists of overviews of the period as well as specific considerations of genre and of individual writers.

**ENG 663. Studies in Modernism. (3 h)**

Selected issues in Modernism. Interdisciplinary, comparative, and theoretical approaches to works and authors. Staff.

**ENG 664. Studies in Literary Criticism. (3 h)**

Consideration of certain figures and schools of thought significant in the history of literary criticism.

**ENG 665. Twentieth-Century British Fiction. (3 h)**

ENG 665 20th-Century British Fiction. (3h) A study of Conrad, Ford, Forster, Joyce, Lawrence, Woolf and later British writers, with attention to their social and intellectual backgrounds.

**ENG 666. James Joyce. (3 h)**

The major works by Joyce, with an emphasis on *Ulysses*.

**ENG 667. Twentieth-Century English Poetry. (3 h)**

A study of twentieth-century poets of the English language, exclusive of the U.S. Poets will be read in relation to the literary and social history of the period. Kuberski.

**ENG 668. Studies in Irish Literature. (3 h)**

The development of Irish literature from the eighteenth century through the early twentieth century in historical perspective, with attention to issues of linguistic and national identity.

**ENG 669. Modern Drama. (3 h)**

Main currents in modern drama from nineteenth century realism and naturalism through symbolism and expressionism. After an introduction to European precursors, the course focuses on representative plays by Wilde, Shaw, Synge, Yeats, O'Neill, Eliot, Hellman, Wilder, Williams, Hansberry, and Miller. Staff.

**ENG 670. American Literature to 1820. (3 h)**

Origins and development of American literature and thought in representative writing of the Colonial, Revolutionary, and Federal periods.

**ENG 671. American Ethnic Literature. (3 h)**

Introduction to the field of American Ethnic literature, with special emphasis on post World War II formations of ethnic culture: Asian American, Native American, African American, Latino, and Jewish American. The course highlights issues, themes, and stylistic innovations particular to each ethnic group and examines currents in the still developing American culture. Franco.

**ENG 672. American Romanticism. (3 h)**

Studies of Romanticism in American literature. Focus varies by topic and genre, to include such writers as Emerson, Thoreau, Hawthorne, Melville, Whitman, and Dickinson. Moss.

**ENG 673. Literature and Film. (3 h)**

Selected topics in the relationship between literature and film, such as adaptations of literary works, the study of narrative, and the development of literary and cinematic genres. Staff.

**ENG 674. American Fiction before 1865. (3 h)**

Novels and short fiction by such writers as Charles Brockden Brown, James Fenimore Cooper, Washington Irving, Edgar Allan Poe, Nathaniel Hawthorne, Herman Melville, Harriet Beecher Stowe, and Rebecca Harding Davis.

**ENG 675. American Drama. (3 h)**

A historical overview of drama in America, covering such playwrights as Boucicault, O'Neill, Hellman, Wilder, Williams, Inge, Miller, Hansberry, Albee, Shepard, Norman, Mamet, and Wilson. Staff.

**ENG 676. American Poetry before 1900. (3 h)**

Readings and critical analysis of American poetry from its beginnings, including Bradstreet, Emerson, Longfellow, Melville, and Poe, with particular emphasis on Whitman and Dickinson. Wilson.

**ENG 677. American Jewish Literature. (3 h)**

Survey of writings on Jewish topics or experiences by American Jewish writers. Explores cultural and generational conflicts, responses to social change, the impact of the Shoah (Holocaust) on American Jews, and the challenges of language and form posed by Jewish and non-Jewish artistic traditions. Staff.

**ENG 678. Literature of the American South. (3 h)**

Study of Southern literature from its beginnings to the present, with emphasis upon such major writers as Tate, Warren, Faulkner, O'Connor, Welty, and Styron. Moss.

**ENG 679. Literary Forms of the American Personal Narrative. (3 h)**

Reading and critical analysis of autobiographical texts in which the ideas, style, and point of view of the writer are examined to demonstrate how these works contribute to an understanding of pluralism in American culture. Representative authors include Douglass, Brent, Hurston, Wright, Kingston, Angelou, Wideman, Sartre, Hellman, and Dillard. Staff.

**ENG 680. American Fiction 1865 - 1915. (3 h)**

ENG 680 American Fiction from 1865-1915. (3h) Study on such writers as Twain, James, Howells, Crane, Dreiser, Wharton, and Cather.

**ENG 681. Studies in African American Literature. (3 h)**

Reading and critical analysis of selected fiction, poetry, drama, and other writings by American authors of African descent.

**ENG 682. Modern American Fiction 1915 to 1965. (3 h)**

Includes such writers as Cather, Lewis, Hemingway, Fitzgerald, Faulkner, Dos Passos, Wolfe, Baldwin, Ellison, Agee, O'Connor, Styron, Percy, and Pynchon. Maine.

**ENG 683. Theory and Practice of Poetry Writing. (3 h)**

Emphasis on reading and discussing student poems in terms of craftsmanship and general principles. Staff.

**ENG 684. Playwriting. (3 h)**

ENG 648 Playwriting (3h) Examines the elements of dramatic structure and their representations in a variety of dramatic writings. Explores the fundamentals of play writing through a series of writing exercises.

**ENG 685. Twentieth-Century American Poetry. (3 h)**

Readings of modern American poetry in relation to the literary and social history of the period. Kuberski.

**ENG 686. Directed Reading. (1-3 h)**

A tutorial in an area of study not otherwise provided by the department; granted upon departmental approval of petition presented by a qualified student. Staff.

**ENG 687. African-American Fiction. (3 h)**

Selected topics in the development of fiction by American writers of African descent.

**ENG 689. African-American Poetry. (3 h)**

Readings of works by American poets of African descent in theoretical, critical, and historical contexts.

**ENG 690. The Structure of English. (3 h)**

Introduction to the principles and techniques of modern linguistics applied to contemporary American English. Overing.

**ENG 691. Studies in Postmodernism. (3 h)**

Interdisciplinary, comparative, and theoretical approaches to works and authors. Staff.

**ENG 692. Magazine Writing. (3 h)****ENG 693. Multicultural American Drama. (3 h)**

Examines the dramatic works of playwrights from various racial and ethnic communities such as Asian American, African American, and Latino. Includes consideration of issues, themes, style and form.

**ENG 694. Contemporary Drama. (3 h)**

Considers experiments in form and substance in plays from *Godot* to the present. Readings cover such playwrights as Beckett, Osborne, Pinter, Stoppard, Churchill, Wertebaker, Albee, Shepard, Mamet, Wilson, Soyinka, and Fugard. Staff.

**ENG 695. Contemporary American Lit. (3 h)**

Study of post-World War II American poetry and fiction by which such writers as Bellow, Gass, Barth, Pynchon, Morrison, Ashbery, Ammons, Bishop, and Rich. Hans.

**ENG 696. Contemporary British Fiction. (3 h)**

Study of the British novel and short story, with particular focus on the multicultural aspects of British life, including works by Rushdie, Amis, Winterson, and Ishiguro. Klein.

**ENG 697. Creative Nonfiction. (3 h)**

A writing-intensive course exploring the practice and theory of creative nonfiction, a genre that encompasses memoir, the personal essay, travel writing, and science writing.

**ENG 698. Advanced Fiction Writing. (3 h)**

Primarily a short story workshop, with class discussion on issues of craft, revision, and selected published stories.

**ENG 699. Practice in Rhetoric & Writing. (3 h)**

ENG 699 Practice in Rhetoric and Writing. (3h) Training and practice in writing expository prose. Students study the use of rhetoric and frame arguments and marshal evidence, then earn to practice these skills in their own writing of expository prose.

**ENG 700. Teaching Internship. (1.5 h)**

An internship for the observation and practice of undergraduate pedagogy, placing an MA student into a core literature, writing, or creative writing course taught by a permanent faculty member, typically in the first semester of the student's second year. Arranged by permission or invitation of the supervising faculty member. Must be taken as an overload in addition to the coursework for the degree. May be repeated for credit for a maximum of 3 hours.

**ENG 701. Individual Authors. (3 h)**

Study of selected works from an important American, English, or Global Anglophone author.

**ENG 702. Ideas in Literature. (3 h)**

Study of a significant literary theme in selected works. May be repeated for credit if topic varies.

**ENG 710. Early Medieval Narrative. (3 h)**

A variety of forms of early medieval narrative (history, saga, chronicle, poetry, hagiography), with a focus on issues of genre and narrative form, connections between story and history, and the text's relation to the culture that produced it. Emphasis is on interdisciplinary viewpoints (artistic, archaeological, geographic), and on contemporary narrative theory.

**ENG 711. Arthurian Legend. (3 h)**

Emphasis is on the origin and developments of the Arthurian legend in England and France, with primary focus on Malory's *Le Morte d'Arthur*. Attention to social and intellectual backgrounds. Sigal.

**ENG 712. Studies in Medieval Literature: Romance and Identity. (3 h)**

A diverse corpus of medieval poetry, both lyric and narrative, is explored in an effort to trace the origin and evolution of the idea and meaning of "romance," a term signifying, for the medieval audience, narrative poetry in the vernacular, and, for our purposes, that uniquely new concept of ennobling love that emerged in the twelfth century. Sigal.

**ENG 715. Studies in Chaucer. (3 h)**

Emphasis on selected *Canterbury Tales*, *Troilus and Criseyde*, and the longer minor works, with attention to social, critical, and intellectual background. Lectures, reports, discussions, and a critical paper. Sigal.

**ENG 720. Renaissance Drama. (3 h)**

Using a historical approach, this seminar examines the relationship between the theater as an institution and centers of authority during the Tudor and Stuart periods. The plays--tragedies, comedies, tragicomedies--are approached as the products of a dynamic exchange between individual authors and the larger political and social concerns of the period. Staff.



**ENG 721. Studies in Spenser. (3 h)**

Emphasis on *The Faerie Queene*; attention to the minor works; intellectual and critical background. Lectures, discussions, and class papers. Ettin.

**ENG 722. Studies in 16th C. British Lit. (3 h)**

Introduction to critical and scholarly methodology for the study of the literature; particular emphasis on Spenser's *Faerie Queene* and Sidney's *Arcadia*. Ettin.

**ENG 723. Studies in Shakespeare. (3 h)**

Representative text from all genres, examined in light of critical methodologies in the field of Shakespeare studies. Emphasis is on reading primary sources as well as on discussion of the impact that historical, cultural, and religious developments had on Shakespeare, the theater, and the thematics of his plays. Valbuena.

**ENG 725. Studies in 17th Cent Brit Lit. (3 h)**

Non-dramatic literature of the seventeenth century, exclusive of Milton. Emphasis on selected major writers. Lectures, discussions, and presentation of studies by members of the class. Staff.

**ENG 727. Studies in Seventeenth-Century British Literature: Primarily Milton. (3 h)**

The work of John Milton, primarily *Paradise Lost*, within its cultural environment. Some attention to connections between Milton's writings and that of his contemporaries. Staff.

**ENG 729. Early Modern Literature. (3 h)**

Introduction to Early Modern literature, spanning a variety of genres, periods, and regions and including historical contexts, critical methodologies, and secondary criticism in Early Modern studies.

**ENG 733. 18th Century British Fiction. (3 h)**

A study of two major British novelists of the eighteenth century. Lectures, reports, critical papers. Authors for study chosen from the following: Defoe, Richardson, Fielding, Smollet, and Austen. Staff.

**ENG 737. Studies in Restoration and Eighteenth Century British Literature. (3 h)**

Selected topics in Restoration and eighteenth century literature. Consideration of texts and their cultural background. Kairoff.

**ENG 740. Studies in Gender and Literature. (3 h)**

An examination of selected writers and/or theoretical questions focusing on issues of gender.

**ENG 741. Studies in Sexuality and Literature. (3 h)**

Thematic and/or theoretical approaches to sexuality within literary studies.

**ENG 743. Nineteenth-Century British Fiction. (3 h)**

Study of one or more major British novelists of the nineteenth century. Lectures, reports, discussions, and a critical paper. Authors for study chosen from the following: Austen, Dickens, Thackeray, Eliot, and Hardy. Staff.

**ENG 745. English Poetry of the Nineteenth and Twentieth Centuries. (3 h)**

Study of several British poets chosen from the major Romantics, Tennyson, Browning, Hardy and Yeats. Wilson.

**ENG 746. Studies in British Romanticism. (3 h)**

Examination of major writers, topics, and/or theoretical issues from the late eighteenth and early nineteenth centuries. Wilson.

**ENG 757. American Poetry. (3 h)**

Studies of the poetry and poetic theory of three major American writers in the nineteenth and twentieth centuries. Writers chosen from the following: Whitman, Dickinson, Frost, Eliot, Stevens, or Williams. Discussions, reports, and a critical paper. Staff.

**ENG 758. Studies in Modern Poetry. (3 h)**

Theoretical issues and themes in twentieth century poetry. Kuberski.

**ENG 759. Studies in Postcolonial Literature. (3 h)**

Examination of themes and issues in postcolonial literature and/or theory, such as: globalization, identity and hybridity, feminism, nationalism ethnic and religious conflict, the impact of neo-imperialism and economic policy, and race and class.

**ENG 760. Studies in Victorian Lit.. (3 h)**

ENG 760 Studies in Victorian Literature (3h). Selected topics such as development of genres, major authors and texts and cultural influences of Victorian Literature. Readings in poetry, fiction and autobiography, and other prose.

**ENG 763. Studies in Modernism. (3 h)**

ENG 763 Studies in Modernism This course will examine elected issues in Modernism, from interdisciplinary, comparative, and theoretical approaches.

**ENG 765. Literary Criticism. (3 h)**

Review of historically significant problems in literary criticism, followed by study of the principal schools of twentieth century critical thought. Lectures, preports, discussions, and a paper of criticism. Staff.

**ENG 766. Studies in Twentieth Century British Literature. (3 h)**

Examination of major writers, topics and/or theoretical issues in twentieth-century British literature. In addition to fiction, the course will focus on drama, theory, prose readings, and poetry.

**ENG 767. Twentieth Century British Fiction. (3 h)**

Study of one or more of the major British novelists of the twentieth century. Authors chosen from among the following: Conrad, Ford, Forster, Joyce, Lawrence, or Woolf. Staff.

**ENG 768. Irish Literature. (3 h)**

Study of major themes, theories, individual authors, or periods, which might include discussions of mythology, folklore, landscape, poetics, narrative strategies, gender, and politics. Holdridge.

**ENG 770. Studies in American Litarture. (3 h)**

Introduction to studies in America literatures, spanning a variety of genres, periods, and regions (US, Black Atlantic, Caribbean, Central American, South American, and hemispheric literatures), including historical contexts, critical methodologies, and secondary criticism in the field.

**ENG 771. American Ethnic Literature. (3 h)**

Examination of how ethnic writers narrate cultural histories and respond to and represent the ambiguity of cultural location. Literary topics include slavery, exile, the Holocaust, immigration, assimilation, and versions of the American Dream.

**ENG 772. Studies in American Romanticism. (3 h)**

Writers of the mid-nineteenth century, including Emerson, Thoreau, Hawthorne, and Melville. Staff.

**ENG 774. American Fiction Before 1865. (3 h)**

A study of novels and short fiction by such writers as Charles Brockden Brown, James Fenimore Cooper, Washington Irving, Edgar Allan Poe, Nathaniel Hawthorne, Herman Melville, Harriet Beecher Stowe, and Rebecca Harding Davis.

**ENG 776. American Poetry Before 1900. (3 h)**

Close reading and critical analysis of selected American poets, such as Bryant, Longfellow, Poe, Emerson, Whitman, and Dickinson. Moss.



**ENG 779. Autobiographical Voices: Race, Gender, Self-Portraiture. (3 h)**

Using a historical and critical approach, this seminar examines autobiography as an activity which combines history, literary art, and self-revelation. Lectures, reports, discussions, a critical journal, a personal narrative, and a critical paper. Authors for study chosen from the following: Douglass, Brent, Hurston, Wright, Angelou, Crews, Dillard, Moody, Malcolm X, Kingston, Wideman, or Sarton. Staff.

**ENG 780. Studies in American Fiction from 1865 to 1915. (3 h)**

Study of the principal fiction of one or more major American writers of the late nineteenth and early twentieth centuries. Lectures, seminar reports, and a research paper. Authors for study chosen from the following: Twain, James, Howells, Adams, Crane, Dreiser, Wharton, or Cather. Maine.

**ENG 781. African-American Literature and the American Tradition. (3 h)**

Critical readings of selected works of major American writers of African descent within the contexts of the African-American and American literary and social traditions. Covers such genres as autobiography, fiction, drama, and poetry. Lectures, reports, discussions, and a critical paper. Staff.

**ENG 782. Studies in American Fiction from 1915 to 1965. (3 h)**

Study of the principal fiction of one or more major American writers of the twentieth century. Writers are chosen from the following: Cather, Lewis, Hemingway, Fitzgerald, Faulkner, Dos Passos, Wolfe, Baldwin, Ellison, Agee, O'Connor, Percy or Pynchon. Maine.

**ENG 783. Contemporary American Fiction. (3 h)**

Seminar devoted to the close study of some of the most important novels produced in the United States since World War II. Hans.

**ENG 784. Contemporary American Poetry. (3 h)**

Seminar devoted to the close study of some of the most important poems written in America since World War II. Hans.

**ENG 786. Directed Reading. (1-3 h)**

A tutorial in an area of study not otherwise provided by the department; granted upon departmental approval of petition presented by a qualified student. Staff.

**ENG 789. Linguistics in Literature. (3 h)**

Examination of theories of grammar and attitudes toward the English language reflected in the literature of selected periods. Overing.

**ENG 791. Thesis Research I. (1-9 h)**

May be repeated for credit. Satisfactory/Unsatisfactory.

**ENG 792. Thesis Research II. (1-9 h)**

May be repeated for credit. Satisfactory/Unsatisfactory.

## Faculty

Program Co-Directors Jennifer Greiman and Zak Lancaster

Chair Jessica Richard

Associate Chair Barry Maine

Reynolds Professor of English Herman Rapaport

Thomas H. Pritchard Professor of English Eric G. Wilson

Professors Anne Boyle, Dean Franco, Jefferson M. Holdridge, Claudia

Thomas Kairoff, Scott W. Klein, Barry G. Maine, Gale Sigal

Associate Professors Amy Catanzano, Jennifer Greiman, Susan Harlan,

Omaar Hena Sarah Hogan, Melissa S. Jenkins, Zak Lancaster, Judith

Madera, Jessica A. Richard, Joanna Ruocco, Erica Still, Olga Valbuena

Hanson

Assistant Professors Chris Brown, Jeff Solomon

## English, MA

### Degree Requirements

Students are required to have a reading knowledge of a modern foreign or classical language. This requirement can be met by earning a satisfactory grade in an advanced reading course in a foreign language taken in residence at the University or by satisfactorily passing a translation examination administered by the English department.

The degree requires 30 credit hours; 24 hours of coursework with an average grade of B or above plus 6 hours of thesis research. At least 15 of the 24 hours must be in courses numbered 700 or above. The remaining 9 hours may be in either 600 or 700 level courses. The thesis must be original and not revised material from coursework. All work must be completed within six years of the date of initial enrollment in the graduate program.

For additional degree requirements, see Requirements for Degrees.

## Health and Exercise Science (HES)

### Master of Science

#### Overview

This program offers specialization in the area of health and exercise science and is designed for those who are interested in careers in research, preventive, and rehabilitative programs, and/or further graduate study.

Candidates for the health and exercise science program are not required to have a specific undergraduate major or minor. However, an undergraduate concentration in the sciences is preferred. Candidates for the program generally pursue research careers in exercise science (e.g. exercise physiology, biomechanics, behavioral medicine, or rehabilitation), and/or careers in clinical exercise physiology, rehabilitation, or health behavior promotion (e.g., cardiac rehabilitation, YMCAs, and corporate fitness programs). The prerequisites for this program include course work in human anatomy, human physiology, physiology of exercise, and biomechanics. These courses should be completed before admission to the program. None of the prerequisites may apply toward the graduate degree.

The Department of Health and Exercise Science supports the Healthy Exercise and Lifestyle Programs (HELPS), a chronic disease prevention and management program for the local community. As part of the coursework in HES 761 and HES 765, graduate students serve an internship in HELPS to gain practical experience as clinical exercise specialists. After serving an internship with HELPS during the first academic year, each student will have the opportunity to be certified as an American College of Sports Medicine (ACSM) Clinical Exercise Physiologist.

The Department of Health and Exercise Science began offering graduate study in 1967. Departmental graduate committee: Katula (chair), Beavers, Berry, Brubaker, Marsh, Messier, Mihalko, Miller, Nixon, Rejeski.

## Programs

### Master of Science

- Health and Exercise Science, MS

## Courses

### HES 650. Human Physiology. (3 h)

A lecture course that presents the basic principles and concepts of the function of selected systems of the human body, with emphasis on the muscular, cardiovascular, pulmonary, and nervous systems. Berry, Brubaker.

### HES 651. Nutrition in Health & Disease. (3 h)

A lecture/lab course that presents the principles of proper nutrition including an understanding of the basic foodstuffs and nutrients as well as the influence of genetics, eating behavior, and activity patterns on performance, energy balance, and weight control. Labs focus on intervention in obesity and coronary heart disease through diet analysis, methods of diet prescription, and behavior modification. Miller.

### HES 652. Human Gross Anatomy. (4 h)

A lecture/lab course on the structure and function of the human body. Labs are devoted to the dissection and study of the human musculoskeletal, neuromuscular, and vascular systems. Marsh, Messier.

### HES 653. Physiology of Exercise. (3 h)

Lecture course that presents the concepts and applications of the physiological response of the human body to physical activity. The acute and chronic responses of the muscular and cardiorespiratory systems to exercise are examined. Other topics include exercise and coronary disease, strength and endurance training, somatotype and body composition, gender-related differences, and environmental influences. P-HES 650 or POI. Miller, Nixon.

### HES 660. Epidemiology. (3 h)

Introduction to basic determinants of the incidence of chronic disease in the population, and development of an understanding of individual, community, and environmental approaches to promoting healthful lifestyles in youth, adults, and elderly populations. Issues are analyzed by formal statistical modeling. Nixon.

### HES 670. Biomechanics of Human Movement. (3 h)

Study of the mechanical principles which influence human movement, sport technique, and equipment design. Marsh, Messier.

### HES 675. Advanced Exercise Physiology. (3 h)

Lecture course on the study of physiological and biochemical adaptations of the human body to exercise, with special emphasis on substrate metabolism, ventilation and respiration, oxygen transport, and muscle physiology. Berry.

### HES 682. Independent Study. (1-3 h)

Literature reviews and/or laboratory research performed on an individual basis under the supervision of a faculty member. Staff.

### HES 715. Experimental Design. (3 h)

Study of the various types of research relevant to health and exercise science. While attention is given to topics such as statistical treatment of data, the primary emphasis involves discussion concerning threats to internal and external validity for experimental and quasi-experimental designs. In conjunction with a sound methodological approach, practical experiences are provided in the preparation and presentation of thesis proposals. Rejeski.

### HES 721. Data Analysis and Interpretation. (3 h)

The application of basic statistical techniques in the analysis and interpretation of data in scientific research. Topics include descriptive statistics, simple linear and multiple correlation/regression analysis, t-tests, analysis of variance and covariance, and non-parametric statistics. Berry.

### HES 733. Health Psychology. (3 h)

Seminar on current topics in health psychology with a focus on wellness programs and rehabilitative medicine. Mihalko.

### HES 761. Cardiopulmonary Disease Management. (3 h)

A lecture/lab class that examines the physiological, pathologic, and pharmacologic considerations of managing patients with cardiovascular and pulmonary disease. Special emphasis on learning diagnostic procedures, interventions, and therapies, particularly models for cardiac and pulmonary rehabilitation. Brubaker.

### HES 763. Advanced Biomechanics. (3 h)

An in-depth study of the mechanical principles that influence human movement. Topics include the study of kinetics, kinematics, cinematography, sport shoe design, and skeletal biomechanics. P-Anatomy, kinesiology, physics, or POI. Messier.

### HES 765. Graded Exercise Testing and Exercise Prescription. (3 h)

The study of the rationale for the use of graded exercise testing in the evaluation of functional work capacity and prescription of exercise. Lectures include the analysis of different modes of evaluation: treadmill, bicycle ergometer, arm ergometer, and field testing, with the application of the results in the evaluation of normal and cardiac patients and prescription of exercise for special populations. Lab experiences include the use of electrocardiographs, ergometers, and metabolic analyzers in the assessment of functional capacity. Brubaker.

### HES 780. Advanced Topics in Exercise and Sport Science. (3 h)

This course is divided into two or more content areas to allow an in-depth treatment of selected topics that are not a regular part of required coursework. Topics are chosen from the following areas: anatomy, biomechanics, computer analysis, multivariate statistics, and physiology of exercise. Seminar and/or lab approach. Staff.

### HES 782. Independent Study in Health and Exercise Science. (1-3 h)

Literature and/or laboratory research performed on an individual basis under the supervision of a faculty member. Staff.

### HES 783. Seminar in Health and Exercise Science. (1 h)

Seminar class designed to bring graduate students and faculty together on a regular basis to discuss research proposals, research design and studies, results of research, and current topics in health and exercise science. Talks by invited or visiting speakers are included as seminar sessions. Graduate students receive reading and work assignments related to the material presented in the seminar. May be repeated for credit. Staff.

### HES 784. Seminar in Health and Exercise Science. (1 h)

Seminar class designed to bring graduate students and faculty together on a regular basis to discuss research proposals, research design and studies, results of research, and current topics in health and exercise science. Talks by invited or visiting speakers are included as seminar sessions. Graduate students receive reading and work assignments related to the material presented in the seminar. May be repeated for credit. Staff.

### HES 791. Thesis Research I. (1-9 h)

May be repeated for credit. Satisfactory/Unsatisfactory.

### HES 792. Thesis Research II. (1-9 h)

May be repeated for credit. Satisfactory/Unsatisfactory.

## Faculty

Program Director Jeffrey A. Katula

Chair Peter H. Brubaker

Research Professor W. Jack Rejeski

Professors Michael J. Berry, Peter H. Brubaker,

Anthony P. Marsh, Stephen P. Messier, Shannon L. Mihalko, Gary D. Miller, Patricia A. Nixon  
Associate Professors Kristen M. Beavers, Jeffrey A. Katula,  
Assistant Professor Jason Fanning

## Health and Exercise Science, MS

### Degree Requirements

All students in the program are required to take the following courses:

Code	Title	Hours
HES 660	Epidemiology	3
HES 675	Advanced Exercise Physiology	3
HES 715	Experimental Design	3
HES 721	Data Analysis and Interpretation	3
HES 733	Health Psychology	3
HES 761	Cardiopulmonary Disease Management	3
HES 763	Advanced Biomechanics	3
HES 765	Graded Exercise Testing and Exercise Prescription	3
HES 783	Seminar in Health and Exercise Science	1
HES 784	Seminar in Health and Exercise Science	1
HES 791	Thesis Research I	1-9
HES 792	Thesis Research II	1-9
<b>Total Hours</b>		<b>28-44</b>

Students can typically expect to spend two years in this program. The first year is devoted to required coursework and the identification of a thesis topic. The research and data collection for the thesis are usually completed in the second year. The second year also allows an opportunity for elective coursework outside the department.

For additional degree requirements, see Requirements for Degrees.

## Interpreting and Translation Studies (ITS)

### Master of Arts

#### Overview

This program prepares professionals for working in the growing language industry as it relates to a variety of fields—foreign affairs, media, business, law, and especially healthcare delivery. The current lack of interpreters and translators has led the U.S. Department of Labor to project an 18 percent increase in employment over the next decade. The program in interpreting and translation studies will not only help meet this demand, but also responds to Wake Forest's "Pro Humanitate" motto, as its graduates will serve underprivileged communities while at the same time contributing to the quality of mainstream healthcare delivery and demonstrating the strong connections between liberal arts education and public service. The program offers four Master of Arts tracks: Intercultural Services in Healthcare; Teaching of Interpreting; Interpreting and Translation Studies, Spanish-English and Chinese-English. The degree can be earned through an intense two-semester course of study or an extended two-year program for the Chinese-English Track. The program admits students on a full-time basis only.

For students who are not able or ready to commit to earning a Master of Arts degree, but who would like to focus on an area of interest, the

program also offers three Graduate Certificates and one postgraduate Certificate in specialized areas. Pairing various certificates provides a comprehensive package for students to reach their career goals in a more flexible, customized manner.

### Master of Arts Tracks

The **Interpreting and Translation Track** is a language-specific, professionally oriented and research-based program that prepares interpreters and language specialists for working in the language industry. Graduates of this program will have a solid foundation in applied interpreting and translation studies, analysis of contextual meaning and extra-linguistic aspects of communication, cross-cultural awareness, sociolinguistics and dialectology, localization and terminology management, and advanced technologies for linguistic services. This program is especially appropriate for those who intend to pursue a doctorate in this field.

The **Teaching of Interpreting Studies Track** is a non-language-specific program that prepares graduates to be instructors in community or college-level interpreter training programs. It is the only program in the Northern hemisphere to focus on methodology of teaching interpreting in the medical context. Graduates of the program will not only provide their students with a set of techniques on how to interpret, but they will also teach, mentor, and raise awareness about the interpreting practice. The curriculum lays the foundation for understanding the interpreting encounter, the co-conversational process and sociocultural determinations. It also includes a broad interdisciplinary research component, which is absent from the training seminars/workshops of other, non-academic programs.

The **Intercultural Services in Healthcare Track** is a non-language-specific program and is the first such specialization in the U.S. It prepares graduates to enter managerial positions in culturally sensitive healthcare delivery areas such as bilingual employment, patient relations, translation and interpreting services, health discourse and health messages. The curriculum provides a solid foundation in cross-cultural health communication, sociolinguistics, applied interpreting and translation studies, written and oral discourse analysis, medical translation, advanced technologies for linguistic services, localization and terminology management, organizational behavior, and health promotion as related to ethnicity.

### Foreign Language or Special Skills Requirements

The Interpreting and Translation Track: Spanish-English. Applicants who do not have a college or high school degree from a Spanish speaking country are required to take an online Spanish proficiency exam.

The Interpreting and Translation Track: Chinese-English. Applicants who do not have a college or high school degree in Chinese (Mandarin) may be subject to a written exam and/or oral interview.

The Teaching of Interpreting Studies Track. Proven interpreting experience is required for this program.

The Intercultural Services in Healthcare Track. Foreign language competency is desirable, but not required for this program

## Programs

- Interpreting and Translation Studies, MA
- Interpreting and Translation Studies, Certificates

## Courses

In addition to the courses listed under Interpreting and Translation Studies (TIS), the following list of courses in Linguistics and Spanish also count towards the completion of the required hours for the Masters or the Certificate programs:

Code	Title	Hours
Linguistics		
LIN 610	Sociolinguistics& Dialectology	3
LIN 680	Language Use & Technology	3
LIN 683	Language Engineering Localization and Terminology	3
Spanish		
SPA 671	Contrastive Spanish/English Grammar and Stylistics	3
SPA 681	Spanish Translation	3
SPA 682	Spanish/English Interpreting	3
SPA 683	Medical and Scientific Translation	3

## Interpreting and Translation Studies

### TIS 684. Internship. (1-3 h)

The internship requires 60 hours of shadowing, observing, gathering data and interpreting/translation work in a professional interpreting, translation, educational or healthcare setting, depending on the student's chosen track.

### TIS 731. Applied Interpreting Studies. (3 h)

This course explores connections between research and practical issues in studies of interpreting (simultaneous, consecutive, bilateral and other modalities). It focuses on the interdisciplinary of the interpreting field and, based on case studies, examines the interface between interpreting as a profession, research in interpreting studies and the teaching of interpreting. It includes a research project.

### TIS 732. Methodology of Teaching Interpreting. (3 h)

This course discusses syllabus design and lesson planning for teachers of interpreting in a field-specific context. It focuses on the development of interpreting skills, including use of recent technological advancements. It explores classroom management options and strategies for providing feedback to students. It also covers internship design methods, including an on-site observation of various interpreting settings.

### TIS 733. Applied Translation Studies. (3 h)

This course examines the theory and practice of translation from a variety of linguistic and cultural angles. It introduces key concepts such as relevance, equivalence, skopos, back-translation, and explores critical approaches, depending on the translated text types.

### TIS 734. U.S. Heritage Speakers. (3 h)

This course provides a comprehensive introduction to the fields of heritage languages, bilingualism, and bilingual education from a cross-disciplinary perspective. It covers a wide variety of topics, including individual and societal conceptions of heritage and dominant languages, general bilingual educational issues, bilingualism and multilingualism as they relate to identity, political and ideological issues, Spanish in the U.S. among many others.

### TIS 735. Discourse Organization and Interpreting. (3 h)

This course will explore the links between social situations, interlocutors, and the functional aspects of communicative events. The course will focus on several important methodological approaches that have been developed to do discourse analysis in as much as they highlight important features of translation and interpreting. We will review the varied traditions around meaning-making, including sociolinguistics, conversation analysis, critical discourse analysis, and discursive psychology. Readings will tie in traditional topics in discourse analysis with specific issues in translation and interpreting. This course will link theory to practice. One session per week will be devoted to practical, hands-on activities using real world data in various formats: written transcripts, aural speeches, or videos.

### TIS 736. Organizational Behavior and Interpreting. (3 h)

This course is designed to apply organizational behavior theories into the interpreting field in order to bring about a better understanding of how individual interpreters or interpreter teams actually behave in large-scale project/organizational setting. Particular emphases are placed on interpreter's roles and on how to evaluate interpreter's performance, motivate interpreters, and maintain a high level of interpreting services. This course prepares students to enter managerial positions in translation/interpreting companies or organizations.

### TIS 738. Editing and Revising for Translators. (3 h)

This course covers various aspects of the editing of translated English text, from copy editing to more substantive forms. Rules of grammar, orthography and principles of composition are reviewed in the context of specialized discourses. Focus is placed on practical issues and editing tasks commonly faced by translators.

### TIS 742. Spanish Specialized Translation. (3 h)

Develops and refines a practical translation skill set within specialized domains, for example, technology, law, international relations, media. Students gain familiarity with textual conventions that govern source and target texts in specialized contexts and deepen their understanding of both Spanish and English as language for specific purposes.

### TIS 750. Contrastive Chinese-Eng Gramm. (3 h)

Advanced study of structures and vocabulary. Exploration of general principles behind 'atom-like' rules and the main lexical dichotomies, and how implications for meaning help in choosing the best option. Discussion of structures that are usually taught as idiomatic but are more compositional than previously thought: subject-predicate vs. topic-comment, verb-particle, verb-complement, serial verb construction, relative clause construction, reduplication, imperative, negation, adposition, etc.

### TIS 751. Chinese-English Translation. (3 h)

Development of advanced translating skills through the practice of bidirectional translation with a strong emphasis on Chinese into English translating. Some back translation exercises will be offered as part of this course.

### TIS 752. Chinese-English Specialized Translation. (3 h)

Develops and refines a practical translation skill set within the specialized domains such as medicine, science, business, etc. In addition, students will gain familiarity with textual conventions that govern source and target texts within these domains and deepen their understanding of both Chinese and English as language for special purposes. Apart from translation proper, students will also be able to analyze texts for register, style, tone and content to determine the most appropriate process to achieve the highest quality translation. Finally, students' research skills will improve through the examination of available resources and the creation of domain-specific resources.



**TIS 755. Chinese-English Interpreting. (3 h)**

Chinese-English Interpreting develops strategies for community, conference, escort and other types of interpreting. Current employment opportunities in the field of interpreting will be also briefly presented. In class work will focus on learning and practicing interpreting techniques. Individual, at home, preparation - besides the assigned readings and interpreting exercises - will also include a strong terminology enhancement.

**TIS 760. U.S. Landscapes: Systems, Culture and Norms. (3 h)**

This course is designed for international students to increase their knowledge of US socio-political structures and Anglo-American cultural identity through the study of U.S. history, politics and popular traditions.

**TIS 785. Applied Research Project. (3 h)**

The applied research project will establish a rigorous connection between the practical experience in the workplace and the more theoretical experience in research and in the classroom. The applied research project will be divided in two components: during the fall semester (3 credit hours) students will learn about general research methodology and receive individual guidance to choose between the research project options. During the spring semester (3 credit hours) students will complete the research project under supervision of a project director.

**TIS 786. Special Topics. (1-3 h)**

Examination of topics not covered in the regular curriculum. May be repeated for credit.

**TIS 789. Independent Study. (1-3 h)**

Independent research project to meet the needs and interests of selected students to be carried out under the direction of a faculty member. Must be approved by program director. May be repeated for credit.

## Faculty

Program Director Olgerda Furmanek

Associate Director Diego Burgos

Charles E. Taylor Professor of Romance Languages Candelas Gala

Professor Olgerda Furmanek

Associate Professors Jerid Francom, Diego Burgos, Luis González,

Tiffany Judy, Stephanie Pellet

Teaching Assistant Professors Xijinyan Chen, Brett Rosenberg, Chaowei Zhu

## Interpreting and Translation Studies, MA

### Degree Requirements

Interpreting and Translation Studies: Spanish-English, Intercultural Services in Healthcare and Teaching of Interpreting are intense two-semester programs, where students in each track are required to complete a minimum of 27 credit hours of course instruction, 3 credit hours of internship, and a 6 credit hour applied research project. None of the 27 credit hours of course instruction may be taken Pass/Fail.

The Interpreting and Translation Studies: Chinese-English track is a two year program of study where students are required to complete a minimum of 30 credit hours of course instruction, 3 credit hours of internship and a 6 credit hour applied research project during the last 2 semesters of the program.

At the end of each student's program of study, the applied research project will be presented to the graduate committee. The primary members of the applied research project committee are the program

faculty, but a student may include an approved committee member from outside of the program.

For additional degree requirements, see Requirements for Degrees.

## Liberal Arts Studies (LBS)

### Master of Arts

Program Director: Ron Von Burg

Program Assistants: April Strader Bullin. Mimi Komos

### Overview

The program offers a master's degree in interdisciplinary exploration of human questions, experiences, and challenges, drawing on diverse fields across the humanities, social sciences, and natural sciences, as well as law, medicine, business, and divinity. Faculty from varied academic disciplines offer interdisciplinary seminars with a focus on integrating knowledge, thinking critically, and strengthening practices of analysis and communication. Students are encouraged to shape their studies around their particular interests and may enroll in directed studies as well as any master's level course in the university with permission of the instructor.

Adult learners in any stage of life, from recent college graduation to preparation for post-career activities, are welcome to apply. No specific type of undergraduate degree or major is required. All applicants must show the ability to study in a graduate-level program, as indicated by a minimum of a B average in undergraduate studies. Further, the applicant's writing sample included with the application should demonstrate capacities for reading comprehension, analysis of a topic, and clear writing.

## Programs

### Master of Arts

- Liberal Arts Studies, MA

## Courses

LBS 720-LBS 729 are topics courses that vary by semester. Topic categories are listed below. Please see this website (<https://continuingstudies.wfu.edu/liberal-arts-studies/courses/>) for specific course descriptions.

**LBS 720. Special Topics: Language and Literature. (3 h)**

Special Topics in Liberal Studies related to Language and Literature. Course emphasis will vary with instructor. May be repeated for credit if topic differs.

**LBS 721. Special Topics: Media, Arts, and Rhetoric. (3 h)**

Special Topics in Liberal Studies related to studies in media, art, and rhetoric. Course emphasis will vary with instructor. May be repeated for credit if topic differs.

**LBS 722. Special Topics: Politics and International Relations. (3 h)**

Special topics in Liberal Studies related to politics and international relations. Course emphasis will vary with instructor. Course may be repeated for credit if the topic differs.

**LBS 723. Special Topics: History, Societies, and Culture. (3 h)**

Special topics in Liberal Studies related to studies in history, societies, and various cultures. Emphasis will vary with instructor. Course may be repeated for credit if the topic differs.



**LBS 724. Special Topics: Philosophy and Religion. (3 h)**

Special Topics in Liberal Studies related to studies in philosophy and religion. Emphasis will vary with instructor. Course may be repeated for credit if the topic differs.

**LBS 725. Special Topics: Popular Culture. (3 h)**

Special Topics in Liberal Studies related to studies in popular culture. Course emphasis will vary with instructor. Course may be repeated for credit if topic differs.

**LBS 726. Special Topics: Urban Arts and Architectural Design. (3 h)**

Special Topics in Liberal Studies related to urban arts and architectural design studies. Course emphasis will vary with instructor. Course may be repeated for credit if topic differs.

**LBS 727. Special Topics: Science, Health, and Culture. (3 h)**

Special Topics in Liberal Studies related to the sciences, health and culture. Course emphasis will vary with instructor. Course may be repeated for credit if the topic differs.

**LBS 728. Special Topics: Fine Arts, Aesthetics, and Creativity. (3 h)**

Special Topics in Liberal Studies related to the study of Fine Art and the areas of aesthetics and creativity. Course emphasis will vary with instructor. Course may be repeated for credit if topic differs.

**LBS 729. Special Topics: Psychology, Humanism, and Business. (3 h)**

Special Topics in Liberal Studies related to the areas of psychology, humanism, and business. Course emphasis will vary with instructor. Course may be repeated for credit if topic differs.

**LBS 786. Directed Study. (1-3 h)**

Working with a faculty advisor, the student completes a special reading project in area not covered in regular courses or a special research project not related to the master's thesis. A student who wishes to enroll must submit the Directed Study Form, signed by the advisor, to the program director. May be repeated once for credit with the permission of the program director.

**LBS 790. Capstone Project. (3 h)**

Capstone project options include: 1) research paper describing and explaining tentative hypotheses based on quantitative and/or qualitative research; 2) creative work with accompanying interpretive text; 3) internship with non-profit or for-profit organization with on site supervision; 4) portfolio of M.A. work, including a retrospective paper on major learnings from student's course of study as well as two academic papers from M.A. courses taken.

**LBS 791. Thesis Research. (3 h)**

LBS 791 Thesis Research II (3h) Liberal Studies thesis research now spans two terms and is awarded a total of 6 credit hours (LBS 791 & LBS 792)

**LBS 792. Thesis Research II. (3 h)**

LBS 792 (3h) Thesis Research II Liberal Studies thesis research now spans two terms and is awarded a total of 6 credit hours (LBS 791 & LBS 792)

## Liberal Arts Studies, MA

### Degree Requirements

The degree requires a minimum of 30 credit hours. At least 15 hours must be taken in LBS courses designed for this program. Up to 6 hours may be taken in Directed Study courses, which do not count toward the 15-hour LBS minimum. A maximum of 12 hours may be taken in 600 and 700 level departmental courses for graduate credit. A student may transfer a

maximum of 6 semester hours from another liberal arts studies program or other appropriate graduate program at the discretion of the director.

Students complete the program by choosing from the following:

**Capstone Project**

Students may choose one of four types of capstone projects, for which 3 credit hours are required: a research project, a creative work, an internship, or a coursework portfolio. A capstone project form must be signed by the faculty member advising the project and submitted to the program director for approval.

**Thesis**

A thesis is written under the supervision of the student's advisory committee (an advisor, and two other readers). The degree with a thesis requires thirty semester hours, including six hours of thesis research and a successfully completed thesis.

For additional degree requirements, see Requirements for Degrees.

## Mathematics and Statistics (MST/STA)

### Mathematics and Statistics (MST/STA) Master of Science

**Overview**

The program is designed to accommodate students seeking either a terminal master's degree or preparation for PhD work.

To obtain the Master of Science degree in one year, a graduate student must present evidence of having completed the work required of an undergraduate who majors in mathematics in a fully accredited college or university. Such a major is understood to include at least 33 semester hours of mathematics, of which at least 18 require as prerequisite one year of calculus. Students who are admitted with less than the level of preparation specified should expect to take additional courses at the 600-level and remain in residence for more than one year.

Students desiring to use work taken in the department for graduate teacher certification should consult the Department of Education before applying for candidacy.

Students in the program have access to state-of-the-art equipment and facilities, including the DEAC Linux cluster (<https://is.wfu.edu/services/high-performance-computing/>).

### Programs

- Mathematics and Statistics, MS
- Structural and Computational Biophysics (SCB), Certificate

### Courses

#### Mathematics MST

**MST 605. Applied Multivariable Mathematics. (3 h)**

Introduction to several topics in applied mathematics including complex numbers, probability, matrix algebra, multivariable calculus, and ordinary differential equations. May not be used toward any graduate degree offered by the department.

**MST 606. Advanced Mathematics for the Physical Sciences. (3 h)**

Advanced topics in linear algebra, special functions, integral transforms, and partial differential equations. May not be used toward any graduate degree offered by the department. P-MTH 605.

**MST 611. Introductory Real Analysis I. (3 h)**

Limits and continuity in metric spaces, sequences and series, differentiation and Riemann-Stieltjes integration, uniform convergence, power series and Fourier series, differentiation of vector functions, implicit and inverse function theorems.

**MST 612. Introductory Real Analysis II. (3 h)**

Limits and continuity in metric spaces, sequences and series, differentiation and Riemann-Stieltjes integration, uniform convergence, power series and Fourier series, differentiation of vector functions, implicit and inverse function theorems.

**MST 617. Complex Analysis I. (3 h)**

Analytic functions Cauchy's theorem and its consequences, power series, and residue calculus.

**MST 622. Modern Algebra II. (3 h)**

A continuation of modern abstract algebra through the study of additional properties of groups, rings, and fields.

**MST 624. Linear Algebra II. (3 h)**

A thorough treatment of vector spaces and linear transformations over an arbitrary field, canonical forms, inner product spaces, and linear groups.

**MST 626. Numerical Linear Algebra. (3 h)**

An introduction to numerical methods for solving matrix and related problems in science and engineering using a high-level matrix-oriented language such as MATLAB. Topics include systems of linear equations, least squares methods, and eigenvalue computations. Special emphasis is given to applications.

**MST 631. Geometry. (3 h)**

An introduction to axiomatic geometry including a comparison of Euclidean and non-Euclidean geometries.

**MST 634. Differential Geometry. (3 h)**

Introduction to the theory of curves and surfaces in two and three dimensional space including such topics as curvature, geodesics, and minimal surfaces.

**MST 645. Elementary Number Theory. (3 h)**

Course topics include properties of integers, congruences, and prime numbers, with additional topics chosen from arithmetic functions, primitive roots, quadratic residues, Pythagorean triples, and sum of squares.

**MST 646. Modern Number Theory. (3 h)**

Course topics include a selection of number-theory topics of recent interest. Some examples include elliptic curves, partitions, modular forms, the Riemann zeta function, and algebraic number theory.

**MST 647. Graph Theory. (3 h)**

Paths, circuits, trees, planar graphs, spanning trees, graph coloring, perfect graphs, Ramsey theory, directed graphs, enumeration of graphs and graph theoretic algorithms.

**MST 648. Combinatorial Analysis I. (3 h)**

Enumeration techniques, generating functions, recurrence formulas, the principle of inclusion and exclusion, Polya theory, graph theory, combinatorial algorithms, partially ordered sets, designs, Ramsey theory, symmetric functions, and Schur functions.

**MST 649. Combinatorial Analysis II. (3 h)**

Enumeration techniques, generating functions, recurrence formulas, the principle of inclusion and exclusion, Polya theory, graph theory, combinatorial algorithms, partially ordered sets, designs, Ramsey theory, symmetric functions, and Schur functions.

**MST 651. Introduction to Mathematical Modeling. (3 h)**

Introduction to the mathematical modeling, analysis and simulation of continuous processes using MATLAB, Mathematica or Maple. Topics include dimensional analysis, stability analysis, bifurcation theory, one-dimensional flows, phase plane analysis, index theory, limit cycles, chaotic dynamics, hyperbolic conservation laws and traveling waves.

**MST 652. Partial Differential Equations. (3 h)**

Detailed study of partial differential equations, including the heat, wave, and Laplace equations, using methods such as separation of variables, characteristics, Green's functions, and the maximum principle.

**MST 654. Discrete Dynamical System. (3 h)**

Introduction to the theory of discrete dynamical systems as applied to disciplines such as biology and economics. Includes methods for finding explicit solutions, equilibrium and stability analysis, phase plane analysis, analysis of Markov chains and bifurcation theory.

**MST 655. Introduction to Numerical Methods. (3 h)**

An introduction to numerical computations on modern computer architectures; floating point arithmetic and round-off error including programming in a scientific/engineering language such as MATLAB, Cor Fortran. Topics include algorithms and computer techniques for the solution of problems such as roots of functions, approximations, integration, systems of linear equations and least squares methods. Also listed as CSC 655.

**MST 657. Probability. (3 h)**

Distributions of discrete and continuous random variables, sampling distributions. Covers much of the material on the syllabus for the first actuarial exam. This course is cross-listed as STA 610.

**MST 658. Mathematical Statistics. (3 h)**

This course will cover derivation of point estimators, hypothesis testing, and confidence intervals using both maximum likelihood and Bayesian approaches. P - MST 657 or POI.

**MST 681. Individual Study. (1, 2 h)**

A course of independent study directed by a faculty adviser. By prearrangement. May be repeated for credit.

**MST 682. Reading in Statistics. (1-3 h)**

Reading in statistical topics to provide a foundational basis for more advanced study in a particular area. May not be used to satisfy any requirement in the MA degree with thesis. No more than three hours may be applied to the requirements for the MA degree without thesis. May be repeated for credit for a total of 3 hours.

**MST 683. Advanced Topics in Mathematics. (1-3 h)**

Topics in mathematics that are not considered in regular courses. Content varies.

**MST 711. Real Analysis. (3 h)**

Measure and integration theory, elementary functional analysis, selected advanced topics in analysis.

**MST 712. Real Analysis. (3 h)**

Measure and integration theory, elementary functional analysis, selected advanced topics in analysis.

**MST 715. Seminar in Analysis. (1 h)****MST 716. Seminar in Analysis. (1 h)****MST 717. Optimization in Banach Spaces. (3 h)**

Banach and Hilbert spaces, best approximations, linear operators and adjoints, Frechet derivatives and nonlinear optimization, fixed points and iterative methods,. Applications to control theory, mathematical programming, and numerical analysis.

**MST 718. Topics in Analysis. (3 h)**

Selected topics from functional analysis or analytic function theory.

**MST 721. Abstract Algebra. (3 h)**

Groups, rings, fields, extensions, Euclidean domains, polynomials, vector spaces, Galois theory.

**MST 722. Abstract Algebra. (3 h)**

Groups, rings, fields, extensions, Euclidean domains, polynomials, vector spaces, Galois theory.

**MST 723. Seminar on Theory of Matrices. (1 h)****MST 724. Seminar on Theory of Matrices. (1 h)****MST 725. Seminar in Algebra. (1 h)****MST 726. Seminar in Algebra. (1 h)****MST 728. Topics in Algrbra. (3 h)**

Topics vary and may include algebraic coding theory, algebraic number theory, matrix theory, representation theory, non-commutative ring theory.

**MST 731. Topology. (3 h)**

Point-set topology including topological spaces, continuity, connectedness, compactness, and metric spaces. Additional topics in topology may include classification of surface, algebraic topology, and knot theory.

**MST 732. Topics in Topology and Geometry. (3 h)**

Topics vary and may include knot theory, algebraic topology, differential topology, manifolds, and Riemannian geometry. May be repated for credit. P - 731 or POI.

**MST 735. Seminar on Topology. (1 h)****MST 736. Seminar on Topology. (1 h)****MST 737. Seminar in Geometry. (1 h)****MST 738. Seminar on Geometry. (1 h)****MST 744. Topics in Number Theory. (3 h)**

Topics vary and are chosen from the areas of analytic, algebraic, and elementary number theory. Topics may include Farey fractions, the theory of partitions, Waring's problem, prime number theorem, and Dirichlet's problem.

**MST 745. Seminar on Number Theory. (1 h)****MST 746. Seminar on Number Theory. (1 h)****MST 747. Topics in Discrete Mathematics. (3 h)**

Topics vary and may include enumerative combinatorics, graph theory, algebraic combinatorics, combinatorial optimization, coding theory, experimental designs, Ramsey theory, Polya theory, representational theory, set theory and mathematical logic.

**MST 748. Seminar on Combinatorial Analysis. (1 h)****MST 749. Sem on Combinatorial Analysis. (1 h)****MST 750. Dynamical Systems. (3 h)**

Introduction to modern theory of dynamical systems. Linear and nonlinear autonomous differential equations, invariant sets, closed orbits, Poincare maps, structural stability, center manifolds, normal forms, local bifurcations of equilibria, linear and non-linear maps, hyperbolic sets, attractors, symbolic representation, fractal dimensions. P - MST 611.

**MST 752. Topics in Applied Mathematics. (3 h)**

Topics vary and may include computational methods in differential equations, optimization methods, approximation techniques, eigenvalue problems. May be repeated for credit.

**MST 753. Nonlinear Optimization. (3 h)**

The problem of finding global minimums of functions is addressed in the context of problems in which many local minima exist. Numerical techniques are emphasized, including gradient descent and quasi-Newton methods. Current literature is examined and a comparison made of various techniques for both unconstrained and constrained optimization problems. Credit no allowed for both MST 753 and CSC 753. P - MST 655 or CSC 655.

**MST 754. Numerical Methods for Partial Differential Equations. (3 h)**

Numerical techniques for solving partial differential equations (including elliptic, parabolic, and hyperbolic) are studied along with applications to science and engineering. Theoretical foundations are described and emphasis is placed on algorithm design and implementation using either C, FORTRAN, or MATLAB. Credit not allowed for both MST 754 and CSC 754. P-MST 655 or CSC 655.

**MST 757. Stochastic Processes and Applications. (3 h)**

This course includes the axiomatic foundations of probability theory and an introduction to stochastic processes. Applications may include Markov chains, Markov Chain Monte Carlo with Metropolis-Hastings, Gibb sampling, Brownian motion, and related topics, with an emphasis on modern developments. This course is cross-listed as STA 710. P-MST 657 or STA 610 and MST 611 or POI.

**MST 791. Thesis Research I. (1-9 h)**

May be repeated for credit. Satisfactory/Unsatisfactory.

**MST 792. Thesis Research II. (1-9 h)**

May be repeated for credit. Satisfactory/Unsatisfactory.

## Statistics

**STA 610. Probability. (3 h)**

Distributions of discrete and continuous random variables, sampling distributions. Covers much of the material on the syllabus for the first actuarial exam. This course is cross-listed as MST 657.

**STA 611. Statistical Inference. (3 h)**

Derivation of point estimators, hypothesis testing, and confidence intervals, using both frequentist and Bayesian approaches. P-STA 610 or MST 657 or POI.

**STA 612. Linear Models. (3 h)**

Theory of estimation and testing in linear models. Topics include least squares and the normal equations, the Gauss-Markov Theorem, testing general linear hypothesis, model selection, and applications. P-STA 610 or MST 657, or POI.

**STA 652. Networks: Models and Analysis. (3 h)**

A course in fundamental network theory concepts, including measures of network structure, community detection, clustering, and network modelling and inference. Topics also draw from recent advances in the analysis of networks and network data, as well as applications in economics, sociology, biology, computer science, and other areas.

**STA 662. Multivariate Statistics. (3 h)**

Multivariate and generalized linear methods for classification, visualization, discrimination, and analysis.

**STA 663. Introduction to Statistical Learning. (3 h)**

An introduction to supervised learning. Topics may include lasso and ridge regression, splines, generalized additive models, random forests, and support vector machines. Requires prior experience with R programming.

**STA 664. Computational and Nonparametric Statistics. (3 h)**

Computationally intensive methods to fit statistical models to data. Topics include simulation, Monte Carlo integration and Markov Chain Monte Carlo, sub-sampling, and nonparametric estimation and regression. P-MST 657 or POI.

**STA 668. Time Series and Forecasting. (3 h)**

Methods and models for time series processes and autocorrelated data. Topics include model diagnostics, ARMA models, spectral methods, computational considerations, and forecasting error. P-STA 610 or MST 657, or POI.

**STA 679. Advanced Topics in Statistics. (1-3 h)**

Topics in statistics not considered in regular courses or which continue study begun in regular courses. Content varies.

**STA 682. Readings in Statistics. (1-3 h)**

Reading in statistical topics to provide a foundational basis for more advanced study in a particular area. May not be used to satisfy any requirement in the MA degree with thesis. No more than three hours may be applied to the requirements for the MA degree without thesis. May be repeated for credit for a total of 3 hours.

**STA 683. Individual Study. (1-3 h)**

A course of independent study directed by a faculty adviser. By prearrangement.

**STA 710. Stochastic Processes and Applications. (3 h)**

This course includes the axiomatic foundations of probability theory and an introduction to stochastic processes. Applications may include Markov chains, Markov Chain Monte Carlo with Metropolis-Hastings, Gibbs sampling, Brownian motion, and related topics, with an emphasis on modern developments. This course is cross-listed as MST 757. P-STA 610 or MST 657 and MST 611 or POI.

**STA 711. Advanced Statistical Inference. (3 h)**

Advanced mathematical treatment of point estimators, hypothesis testings, and confidence intervals, using both frequentist and Bayesian approaches. P-STA 610 or MST 657, or POI.

**STA 712. Generalized Linear Models. (3 h)**

Extensions of the classical linear model to cover models for binary and count data, ordinal and nominal categorical data, and time-to-event data, along with numerical maximization techniques needed to fit such models. Additional topics may include longitudinal data, the Expectation-Maximization algorithm, non-linear models, or related topics. P-STA 612 or POI.

**STA 720. Bayesian Analysis. (3 h)**

Fundamental concepts, theory, and computational methods for Bayesian inference. Topics may include decision theory, evaluating Bayesian estimators, Bayesian testing and credible intervals, Markov chain Monte Carlo methods, and hierarchical models. P-STA 610 or MST 657, or POI.

**STA 779. Topics in Statistics. (3 h)**

Topics vary by instructor. May be repeated for credit.

**STA 791. Thesis Research. (1-9 h)**

May be repeated for credit. Satisfactory/Unsatisfactory. P-POI.

**STA 792. Thesis Research. (1-9 h)**

May be repeated for credit. Satisfactory/Unsatisfactory. P-POI.

## Faculty

Program Director Jeremy Rouse

Chair Sarah Raynor

Associate Chair Robert Erhardt

Wake Forest Taylor Professor Stephen Robinson

Professors Edward Allen, Kenneth Berenhaut, Jennifer Erway Fey, Hugh Howards, Miaohua Jiang, Ellen E. Kirkman, Sarah Raynor

Sterge Faculty Fellows and Associate Professors Sarah Mason, Jeremy Rouse

Associate Professors Robert Erhardt, Staci Hepler, W. Frank Moore, R.

Jason Parsley

Sterge Faculty Fellows and Assistant Professors Abbey Bourdon, John Gemmer

Assistant Professors Ciaran Evans, Claudia Falcon, Leandro

Lichtenfelz, Lucy D'Agostino McGowan, John Holmes, Emily Huang, Sneha Jadhav,

Assistant Teaching Professors Justin Allman, Nicole Dalzell, Lynne Yengulalp

Visiting Assistant Professors Guillermo Alesandroni, Duff Baker-Jarvis, Zachary Letterhos, Qing Liu, Rajan Puri, Michael Roberts

Teacher-Scholar Postdoctoral Fellows Kaitlin Hill, Thomas

Kindred, Tolulope Oke, Mostafa Rezapour, Lori Watson

Professor Emeritus and Part-time Instructor Richard Carmichael

## Mathematics and Statistics, MS Degree Requirements

The requirements for the MS degree are met by selecting either the thesis option or the non-thesis option, and by selecting one of two possible tracks for coursework.

### Thesis Option

If a thesis is written, 30 semester hours of coursework, including MST/STA 791, 792 and at least four additional 3-hour courses numbered above 700 are required for the MS degree.

Code	Title	Hours
MST/STA 791	Thesis Research I	9
MST/STA 792	Thesis Research II	9
At least four additional 3-hour MST/STA courses numbered 700 or above:		12
<b>Total Hours</b>		<b>30</b>

### Non-Thesis Option

If a thesis is not written, 36 semester hours of coursework, including at least five 3-hour courses numbered above 700, are required for the MA



degree. MST 791/STA 791 and MST 792/STA 792 cannot be counted as part of this coursework.

Pure Mathematics Track

For the pure mathematics track, an advanced course is required in each of analysis, algebra and topology; normally this requirement is met with the courses MST 711, MST 721, and MST 731.

Code	Title	Hours
Advanced course in each of algebra and topology:		
MST 721	Abstract Algebra	3
or MST 722	Abstract Algebra	
MST 731	Topology	3
or MST 732	Topics in Topology and Geometry	

Mathematical Statistics Track

For the mathematical statistics track, STA 612 is required, along with an advanced course in each of probability, statistical inference, and linear models; normally this requirement is met with the courses STA 710, STA 711, and STA 712. All elective courses in either track may be taken in either MST or STA.

Code	Title	Hours
Advanced course in analysis:		
STA 611	Statistical Inference	6
& STA 612	and Linear Models	
Advanced course in each of probability and linear models:		
STA 710	Stochastic Processes and Applications	3
STA 712	Generalized Linear Models	3

With the approval of the Graduate Committee, graduate courses may be taken in related areas to fulfill requirements; however, no more than 6 such hours may count toward the requirements for either the thesis or non-thesis option.

For additional degree requirements, see Requirements for Degrees.

Physics (PHY)

Master of Science, Doctor of Philosophy Overview

Opportunities for study are those usually associated with large research universities, while the atmosphere of a small liberal arts university with an ideal faculty/student ratio is maintained.

For admission to the program, students should have knowledge of senior level undergraduate mechanics, electricity and magnetism, thermodynamics, and quantum physics. The course of study for each student is planned in conference with the graduate advisor after an evaluation of academic background and experience. Deficiencies may be removed during the first year of study by taking remedial courses.

The research interests of the graduate faculty are in experimental and computational biophysics, nanotechnology, optics, experimental and theoretical solid state physics, particle physics, and relativity. All research laboratories are well-equipped with state-of-the-art instrumentation, such as subpicosecond pulsed lasers; EPR; time-resolved, UV-vis spectrophotometers; optical tweezers; atomic force microscopes; single molecule manipulators; high-sensitivity optical and confocal microscopes; numerous, standard biochemical research

apparatuses; and others. The Center of Nanotechnology and Molecular Materials ([www.wfu.edu/nanotech](http://www.wfu.edu/nanotech)), which houses state-of-the-art electronmicroscopies, and sample analysis and preparation instruments and a clean room, is part of the physics department. Theoretical research is supported by the DEAC Linux Cluster with several thousand computational processing cores.

For more details on the PhD program, visit [www.wfu.edu/physics](http://www.wfu.edu/physics) or write to the chair of the graduate committee.

Departmental graduate committee: Salsbury (chair), Bargigia, Carroll, Guthold, Kandada, Cho.

Programs

- Physics, MS
- Physics, PhD
- MD/PhD
- PhD/MBA
- Structural and Computational Biophysics (SCB), Certificate

Courses

- PHY 601. Physics Seminar. (0.5 h)**  
Discussion of contemporary research, usually with visiting scientists.
- PHY 602. Physics Seminar. (0.5 h)**  
Discussion of contemporary research, usually with visiting scientists.
- PHY 607. Biophysics. (3 h)**  
Introduction to the structure, dynamic behavior, and function of DNA and proteins, and a survey of membrane biophysics. The physical principles of several biophysical methods, such as X-ray diffraction, sedimentation, light scattering, light absorption, fluorescence and single molecule tools are studied. Designed to be accessible to students with biochemistry, chemistry, or physics backgrounds. Recommended C-PHY 625.
- PHY 610. Extragalactic Astronomy and Cosmology. (3 h)**  
Topics covered include galactic structure, models for galaxies and galaxy formation, the large-scale structure of the universe, the Big Bang model of the universe, physical processes such as nucleosynthesis in the early universe, and observational cosmology.
- PHY 620. Physics of Macromolecules. (3 h)**  
Physics of biologically important molecules, especially proteins and nucleic acids. Topics covered include the physical basis of biomolecular structure, the energetics and statistical mechanics of biomolecular dynamics, and the electrostatics and solvation of biomolecules. Course requirements may include a field trip to a relevant conference, such as the Carolina Biophysics Symposium, and a discussion section with an appropriate physics colloquium speaker. Designed to be accessible to students with biochemistry, chemistry, or physics backgrounds provided they have some exposure to thermodynamics and macromolecular structure. C-PHY 623.
- PHY 623. Comput Biophys Lab. (1 h)**  
Application of techniques in molecular modeling, including energy minimization, molecular dynamics simulation, and conformational analysis, to biological macromolecules. P-PHY 630 or POI.
- PHY 625. Biophysical Methods Lab. (1 h)**  
Lab involves experiments using various biophysical techniques such as DNA and protein gel electrophoresis, protein crystallography and X-ray diffraction, electron paramagnetic resonance, atomic force microscopy, fluorescence microscopy, light scattering, stopped-flow absorption spectroscopy and ultracentrifugation. Recommended C-PHY 607.



**PHY 635. Computational Physics. (3 h)**

An introduction to finding numerical solutions to scientific problems. Topics include understanding computational errors, differentiation, integration interpolation, root finding, random numbers, linear systems, Fourier methods, and the solution of ODEs and PDEs. There is no computer programming prerequisite. Credit will not be given for both PHY 635 and CSC/MST 655.

**PHY 637. Analytical Mechanics. (1.5 h)**

The Lagrangian and Hamiltonian formulations of mechanics with applications. Taught in the first half of the fall semester.

**PHY 639. Electricity and Magnetism. (1.5 h)**

Electrostatics, magnetostatics, dielectric and magnetic materials, Maxwell's equations and applications to radiation, relativistic formulation. The first half course is taught in the second half of the fall semester, following PHY 637. The other course is taught in the spring semester. These should be taken in sequence. P-PHY 601.

**PHY 640. Electricity and Magnetism. (1.5-3 h)**

Electrostatics, magnetostatics, dielectric and magnetic materials, Maxwell's equations and applications to radiation, relativistic formulation. The first half course is taught in the second half of the fall semester, following PHY 637. The other course is taught in the spring semester. These should be taken in sequence. P-PHY 601.

**PHY 641. Thermodynamics and Statistical Mechanics. (3 h)**

Introduction to classical and statistical thermodynamics and distribution functions.

**PHY 642. Electricity and Magnetism. (1.5 h)****PHY 643. Quantum Physics. (3 h)**

Application of the elementary principles of quantum mechanics to atomic, molecular, solid state, and nuclear physics.

**PHY 644. Quantum Physics. (3 h)**

Application of the elementary principles of quantum mechanics to atomic, molecular, solid state, and nuclear physics.

**PHY 645. Advanced Physics Laboratory. (1 h)**

The lab associated with PHY 643, 644.

**PHY 652. Physical Optics and Optical Design. (1-4 h)**

Interaction of light with materials; diffraction and coherent optics; ray trace methods of optical design. Lab-three hours.

**PHY 652L. Physical Optics Lab. (0 h)****PHY 654. Introduction to Solid State Physics. (3 h)**

Survey of the structure, composition, physical properties, and technological applications of condensed matter. P-PHY 643.

**PHY 655. Exotic Materials. (1.5 h)**

This course is a study of materials that express exotic properties that are derived from some aspect of the system's dimensionality. It introduces the thermal, electrical, optical and magnetic properties of exotic materials systems. It discusses simple models for the structure-property relationships for a wide range of nanoscale and low-dimensional systems.

**PHY 656. Electronic Imaging Sciences. (1.5 h)**

This course introduces the theory and application of the electron imaging systems: transmission electron microscopy (TEM) and scanning electron microscopy (SEM). It focuses on basic materials science though some biological materials will be covered. It is taught as a series of lectures followed by laboratories.

**PHY 657. Scanning Probes. (1.5 h)**

This course examines the theory and application of scanning tunneling microscopy and atomic force microscopy (STM/AFM). It introduces how each type of imaging works, how to model spectroscopic data, and how to use each microscope. Students will image using the STM and AFM as well as take and reduce spectroscopy data using models built in Maple or Mathematica.

**PHY 658. Kinetics of Materials. (1.5 h)**

This course offers a study of driving forces for atomic and ionic motion within solids leading to a range of materials properties from work hardening to phase transformations and formation. Atomic-level models for diffusion will be introduced as well as techniques and examples of the solution to the diffusion equation. It complements the traditional thermodynamics course.

**PHY 661. Biophysics Seminar. (1 h)**

Seminal and current publications in biophysics are studied. Each week a member of the class makes an oral presentation on a chosen publication and leads the ensuing discussion. Students may also be required to make a second oral presentation relevant to their own research. Does not fulfill course requirements for Master's or PhD degrees. May be repeated for credit.

**PHY 663. Condensed Matter Seminar. (1 h)**

Seminal and current publications in condensed matter physics are studied. Each week a member of the class makes an oral presentation on a chosen publication and leads the ensuing discussion. Does not fulfill course requirements for Master's or PhD degrees. May be repeated for credit.

**PHY 681. Research. (1-3 h)**

Library, conference, and lab work performed on an individual basis.

**PHY 682. Research. (1-3 h)**

Library, conference, and lab work performed on an individual basis.

**PHY 685. Bioinformatics. (3 h)**

Introduces bioinformatics and computing techniques essential to current biomedical research. Topics include genome and protein sequence and protein structure databases, algorithms for bioinformatics research, and computer architecture and environmental considerations. Also listed as CSC 685 and BIO 685. P-Introductory courses in biology, chemistry, and molecular biology or biochemistry or POL.

**PHY 691. Special Topics in Physics. (1-4 h)**

Courses in selected topics in physics. May be repeated if course content differs.

**PHY 692. Special Topics in Physics. (1-4 h)**

Courses in selected topics in physics. May be repeated if course content differs.

**PHY 711. Classical Mechanics and Mathematical Methods. (3 h)**

A study of variational principles and Lagrange's equations, the rigid body equations of motion, the Hamilton equations of motion and canonical transformations, Hamilton-Jacobi theory, and applications to continuous systems and fields. Kerr, N. Holzwarth.

**PHY 712. Electromagnetism. (3 h)**

A study of electric and magnetic fields in vacuum and within media and their sources. Analytical and numerical methods for solving Maxwell's equations are also an important part of the course.

**PHY 715. Nonlinear Optics and Quantum Electronics. (1-4 h)**

Nonlinear phenomena in laser spectroscopy, the quantum nature of optical processes in matter, and topics in laser physics. Lab-three hours. R. Williams.

**PHY 731. Elementary Particle Physics. (3 h)**

Fundamentals of contemporary elementary particle physics. Carlson.

**PHY 741. Quantum Mechanics. (3 h)**

Study of the foundations of modern quantum theory, with an emphasis on the meaning of the wave equation, operators, eigen-functions, eigenvalues, commutators, matrix mechanics, spin, and scattering.

Anderson, Carlson, N. Holzwarth, Kerr.

**PHY 742. Quantum Mechanics. (3 h)**

Study of the foundations of modern quantum theory, with an emphasis on the meaning of the wave equation, operators, eigen-functions, eigenvalues, commutators, matrix mechanics, spin, and scattering.

Anderson, Carlson, N. Holzwarth, Kerr.

**PHY 743. Advanced Quantum Mechanics. (3 h)**

Advanced topics in quantum mechanics, including an introduction to relativistic quantum theory, quantum electrodynamics, and many particle treatments. Anderson, Carlson, N. Holzwarth, Kerr.

**PHY 744. Introduction to Quantum Field. (3 h)**

Introduction to relativistic quantum field theory, including canonical quantization, path integral techniques, perturbation theory, and renormalization. Anderson, Carlson.

**PHY 745. Group Theory. (3 h)**

Group theory and its applications to the quantum mechanics of atoms, molecules, and solids. Carlson.

**PHY 752. Solid State Physics. (3 h)**

Introductory course including the structure of perfect crystalline solids, their thermal electronic properties, the free electron and band theory of metals, imperfect crystals, transport properties, and semiconductors.

Carroll, N. Holzwarth, Kerr Matthews, R. Williams.

**PHY 754. Surface Science. (3 h)**

Experimental and theoretical methods for the study of surfaces and interfaces. Lab-1.5 hours. N. Holzwarth, R. Williams.

**PHY 756. Seminar on Defects in the Solid State. (2 h)**

The generation and interactions of point and line defects such as color centers, vacancies, and dislocations treated. Matthews, R. Williams.

**PHY 765. Gravitational and Particle Theory Seminar. (1 h)**

Topics in general relativity, particle physics, and astrophysics are studied. Each week a faculty member or member of the class makes an oral presentation on a chosen topic and leads the ensuing discussion. Does not fulfill minimum course requirements for Master's and PhD degrees.

**PHY 770. Statistical Mechanics. (3 h)**

Introduction to probability theory and to the physics of systems containing large numbers of particles from the classical as well as the quantum point of view. Kerr.

**PHY 771. Radiological Physics. (3 h)**

The nature and fundamental concepts of ionizing radiation including: ionizing radiation, radiation quantities, attenuation and stopping power, charged particle and radiation equilibria radioactive decay, photon interactions, charged and uncharged particle interactions, x-ray production and quality, dosimetry concepts, ionization cavity theory, and calibration of ionizing radiation beams.

**PHY 773. Radiation Therapy Physics. (3 h)**

The physics of radiation treatment including: radiation producing equipment, character of photon and electron radiation beams, radiation dose functions, computerized radiation treatment planning, brachytherapy, special radiation treatment procedures, quality assurance, and radiation shielding for high energy facilities.

**PHY 774. Physics of Medical Imaging. (3 h)**

The physical principles, mathematical algorithms and devices used in diagnostic medical imaging, covering the following imaging modalities: x-ray digital imaging, digital image receptors, computerized tomography and reconstruction algorithms, ultrasound imaging, magnetic resonance imaging and nuclear medicine imaging.

**PHY 776. Medical Health Physics. (3 h)**

Physical and biological aspects for the use of ionizing radiation in medical environments, biological consequences of human radiation exposure, principles of ionizing radiation protection, operational dosimetry, radiation exposure recommendations and regulations, physical principles of radiation shielding design, personnel monitoring, medical health physics instrumentation, and waste disposal.

**PHY 780. Theory of General Relativity. (3 h)**

Study of the covariant formulation of physical laws in mechanics and electromagnetism. Anderson, Cook.

**PHY 785. Topics in Theoretical Physics. (1-3 h)**

Selected topics of current interest in theoretical physics not included in other courses. Anderson, Carlson, Cook, Fetrow, N. Holzwarth, Kerr, Salsbury.

**PHY 787. Advanced Topics in Physics. (1-3 h)**

Lectures on advanced topics in physics that depend on the subspecialty of the instructor. Topics range from medical physics to special topics in biophysics, condensed matter physics, or quantum optics. May be repeated for credit.

**PHY 789. Survival Skills for Scientists. (1 h)**

Students will learn skills that are essential to a successful career in the sciences. The following topics will be covered: Mentoring; How to Read, Write, and Review a Research Paper; Grant & Fellowship Basics; Choosing a Career Path & Creating a Winning Job Application; and Networking & Giving Effective Talks.

**PHY 791. Thesis Research I. (1-9 h)**

May be repeated for credit. Satisfactory/Unsatisfactory.

**PHY 792. Thesis Research II. (1-9 h)**

May be repeated for credit. Satisfactory/Unsatisfactory.

**PHY 795. Physics for Education Research. (3 h)**

Fulfills the requirement for a graduate course in physics for students in the Masters in Education program seeking certification to teach physics.

**PHY 891. Dissertation Research I. (1-9 h)**

May be repeated for credit. Satisfactory/Unsatisfactory.

**PHY 892. Dissertation Research II. (1-9 h)**

May be repeated for credit. Satisfactory/Unsatisfactory.

## Faculty

Program Director/Scott Family Faculty Fellow/Professor Fred Salsbury  
Department Chair/Professor/Harbert Family Distinguished Chair Daniel B. Kim-Shapiro

Professor and Wright Family Endowed Chair in Physics Timo Thonhauser  
Baker Family Professor of Physics Oana Jurchescu  
Professor and Associate Chair Martin Guthold  
Professor and Associate Provost for Research and Scholarly Activities Keith Bonin

Professors Paul R. Anderson, David L. Carroll, Natalie A. W. Holzwarth, Jed Macosko

Associate Professors Eric D. Carlson, Samuel S. Cho, Gregory B. Cook  
Associate Teaching Professor Jack A. Dostal

Assistant Professors Ilaria Bargigia, Ajay Ram Srimath Kandada, Stephen M. Winter

Research Professors George M. Holzwarth, William C. Kerr, George Eric Mathews, Richard T. Williams  
 Research Associate Professors Swati Basu, K. Burak Ucer  
 Adjunct Professors J. Daniel Bourland, Mark W. Roberson, Michael Munley, Peter Santago  
 Adjunct Associate Professor Adam R. Hall  
 Affiliate Assistant Professors Erin Henslee, Lauren Lowman

## Physics, MS

### Degree Requirements

Course work must include:

Code	Title	Hours
PHY 711	Classical Mechanics and Mathematical Methods	3
PHY 712	Electromagnetism	3
PHY 741	Quantum Mechanics	3
PHY 601	Physics Seminar (each semester)	3
Thesis Research		6
PHY 600 or 700 level courses		12
<b>Total Hours</b>		<b>30</b>

If serious conflicts arise (e.g. time conflict with other classes or teaching duties, exceeding allowed credit hours for part-time students), departmental seminar series requirement may be waived for some semesters, at the discretion of the program director. These weekly seminars, in fields of special interest, usually feature outside speakers. The degree requires 30 credit hours; 24 hours of coursework with an average grade of B or above plus 6 hours of thesis research. At least 12 of the 24 hours must be in courses numbered 700 or above. The remaining 12 hours may be in either 600 or 700 level courses. All work must be completed within six years of the date of initial enrollment in the graduate program.

For additional degree requirements, see Requirements for Degrees.

## Physics, PhD

### Degree Requirements

Course work must include the following:

Code	Title	Hours
PHY 711	Classical Mechanics and Mathematical Methods *	3
PHY 712	Electromagnetism *	3
PHY 741	Quantum Mechanics *	3
PHY 742	Quantum Mechanics *	3
PHY 770	Statistical Mechanics *	3
PHY 601	Physics Seminar (seven semesters)	3.5

\* Unless satisfactorily completed elsewhere.

Students must also take three elective courses at the graduate level (600 or 700 level), at least one of which must be in physics. A research advisory committee, appointed after completion of the written preliminary examination, determines the additional courses needed for the degree, such as Advanced Quantum Mechanics, Biophysics, Solid State Physics, General Relativity, Nonlinear Optics, Math or Computer Science, Medical

Physics, Biomedical Engineering, etc. Within eighteen months of completing the preliminary written examination, the student submits to his or her individual advisory committee and defends orally a dissertation research plan. This constitutes the oral part of the preliminary exam and upon passing it, the student can be advanced to candidacy. The successful completion of a program in scientific ethics is also required prior to admission to degree candidacy. This requirement is fulfilled either by participating in the courses designated by the Graduate School or by satisfactory completion of approved departmental electives that incorporate extensive discussion of scientific ethics. The research advisory committee meets annually with the student to ensure timely progress toward the degree. Upon completion of the research in the approved plan, the student writes his or her dissertation, presents it to the department, and defends it orally.

For additional degree requirements, see Requirements for Degrees.

## Psychology (PSY)

### Master of Arts

#### Overview

This research-oriented program emphasizes the scientific, theoretical, and research bases common to all areas of psychology (e.g., social, cognition, personality, developmental, statistics).

The program is designed for capable students who expect to continue to the PhD degree but wish to begin graduate work in a department where they receive a high degree of individual attention from the faculty.

The applicant is expected to have an undergraduate major in psychology at an accredited institution, including a subset of basic foundational courses such as developmental, social, biopsychology, personality, cognition, learning, perception, etc., as well as statistics and/or research methods. Applications are also accepted from students who were not psychology majors as undergraduates, but these applicants should have a background in coursework that prepares the student for graduate level work in psychology.

The areas in which research is currently being conducted include aging, cognitive processes, judgment and decision making, adolescent development, cultural identity, neuropsychology, perception, personality, physiology, and social psychology.

Most students take two academic years to complete the program. Students who hold assistantships are required to spend two years in residence.

The Master of Arts degree has been offered since 1964.

### Programs

#### Master of Arts

- Psychology, MA

### Courses

#### PSY 620. Physiological Psychology. (3 h)

Neurophysiological and neuroanatomical explanations of behavior.

#### PSY 622. Psychopharmacology. (3 h)

Survey of the influences of a wide range of psychoactive drugs, both legal and illegal, on human physiology, cognition, and behavior.

**PSY 623. Animal Behavior. (3 h)**

Survey of lab and field research on animal behavior.

**PSY 626. Learning Theory and Research. (3 h)**

Theory and current research in learning, with emphasis on applications of learning principles for behavior modification and comparisons across species.

**PSY 629. Perception. (3 h)**

Survey of theory and research findings on various sensory systems (vision, hearing, touch, taste).

**PSY 631. Research in Cognitive Psychology. (3 h)**

In-depth examination of research in a selected area of cognitive psychology such as memory, attention, or executive function. Research projects required.

**PSY 633. Motivation of Behavior. (3 h)**

Survey of basic motivational concepts and related evidence.

**PSY 638. Emotion. (3 h)**

Survey of theory, methods, and research in the area of emotion. Developmental, cultural, social-psychological, physiological, personality, and clinical perspectives on emotions are given.

**PSY 641. Research in Developmental Psychology. (3 h)**

Methodological issues and selected research in child development. Research projects required.

**PSY 646. Stereotyping and Prejudice. (3 h)**

Research and theory on social and cognitive processes that underlie prejudice and discrimination.

**PSY 648. Clinical Neuropsychology. (3 h)**

Surveys connections between abnormal neurological processes and clinical abnormalities. This implies already having an understanding of normal brain function and anatomy.

**PSY 651. Personality Research. (3 h)**

The application of a variety of research procedures to the study of human personality. Research projects required.

**PSY 655. Research in Social Psychology. (3 h)**

Methodological issues and selected research in the study of the human as a social animal. Field research projects required.

**PSY 657. Cross-Cultural Psychology. (3 h)**

Examination of differences in psychological processes (e.g., attitudes, perception, mental health, organizational behavior) associated with cultural variation.

**PSY 659. Psychology of Gender. (3 h)**

Exploration of the psychological similarities and differences between human males and females, including consideration of social, cognitive, motivational, biological, and developmental determinants of behavior.

**PSY 662. Psychological Testing. (3 h)**

Theory and application of psychological assessment procedures in the areas of intelligence, aptitude, vocational interest, and personality.

**PSY 663. Survey of Clinical Psychology. (3 h)**

Overview in the field of clinical and other selected areas of applied psychology.

**PSY 664. Prejudice, Discrimination, Racism, and Heterosexism. (3 h)**

Comparison of cross-cultural similarities and differences in the initiation, maintenance, and treatment of prejudice, discrimination, and racism, with an emphasis on past and current trends in the U.S.

**PSY 667. Parent-Child Relationships. (3 h)**

Surveys characteristics of parent-child relationships and issues of parenting as related to a variety of factors, including developmental changes of parent and child, family structure, and sociocultural context.

**PSY 674. Judgment and Decision Making. (3 h)**

Theoretical and empirical examination of how people make decisions and judgments about their lives and the world, and how these processes can be improved.

**PSY 692. Contemporary Problems in Psychology. (1.5 h)**

Seminar treatment of current theory and research in specific areas within psychology. The course is one-half semester.

**PSY 701. Current Topics in Psychology. (1.5 h)**

Seminar courses in selected topics in psychology.

**PSY 702. Current Topics in Psychology. (1.5 h)**

Seminar courses in selected topics in psychology.

**PSY 703. Current Topics in Psychology. (3 h)**

Seminar course in selected topics in psychology.

**PSY 715. Research Design and Analysis in Psychology. (3 h)**

Intensive study of the design of experiments and the analysis of research data in psychology. Covers conventional methods, including univariate and multivariate analysis of variance, multiple regression, and factor analysis. Requires previous or concurrent coursework in basic statistics. Written permission of instructor required. Furr, Leary, Stone.

**PSY 716. Research Design and Analysis in Psychology. (3 h)**

Intensive study of the design of experiments and the analysis of research data in psychology. Covers conventional methods, including univariate and multivariate analysis of variance, multiple regression, and factor analysis. Requires previous or concurrent coursework in basic statistics. Written permission of instructor required. Furr, Leary, Stone.

**PSY 720. Biological Psychology. (3 h)**

Study of the biological basis of behavior and mental processes, with emphasis on current developments in neuroscience, and human applications of this information. Laboratory work in neuroanatomy and psychophysiology. Blumethal.

**PSY 728. Human Cognition. (3 h)**

Current theory and research on functional characteristics and neural correlates of cognitive processes in such areas as memory, attention, and language. Dagenbach.

**PSY 738. Learning and Motivation. (3 h)**

Basic learning principles and concepts and related motivational concepts. Beck.

**PSY 742. Seminar in Developmental Psychology. (3 h)**

Critical examination of the major findings, principles, and theories of development, with attention to both human and lower-animal research. Buchanan.

**PSY 752. Seminar in Social Psychology. (3 h)**

Content and methodology of social psychology examined through a critical and comparative analysis of contemporary theory and literature. Seta.

**PSY 757. Seminar in Personality Psychology. (3 h)**

Evaluation of contemporary solutions to important problems in personality psychology, with special attention to historical context and anticipated future directions. Fleeson, Furr.

**PSY 770. Psychology Practicum. (1-3 h)**

Work experience in an applied psychology setting (such as clinical or industrial) under a qualified supervisor. Staff.



**PSY 771. Psychology Practicum. (1-3 h)**

Work experience in an applied psychology setting (such as clinical or industrial) under a qualified supervisor. Staff.

**PSY 772. Psychology Practicum. (1-3 h)**

Work experience in an applied psychology setting (such as clinical or industrial) under a qualified supervisor. Staff.

**PSY 773. Psychology Practicum. (1-3 h)**

Work experience in an applied psychology setting (such as clinical or industrial) under a qualified supervisor. Staff.

**PSY 782. Readings and Research in Psychology. (1-3 h)**

This listing allows the graduate student, working under the supervision of a faculty member, to pursue and receive credit for 1) a special reading project in an area not covered by regular courses or 2) a special research project not related to the master's thesis. Supervising faculty member and hours credit for which enrolled determined by graduate committee prior to registration.

**PSY 785. Directed Thesis Research I. (3 h)**

First-year students undertake a substantial research project under the direction of their adviser. Staff.

**PSY 786. Directed Thesis Research. (3 h)****PSY 791. Thesis Research I. (1-9 h)**

Staff.

**PSY 792. Thesis Research II. (1-9 h)**

Staff.

## Faculty

Program Director R. Michael Furr

Chair Eric R. Stone

William L. Poteat Professor of Psychology Deborah L. Best

Professors Terry D. Blumenthal, Christy M. Buchanan, Dale Dagenbach,

William W. Fleeson, R. Michael Furr, Lisa Kiang, John V. Petrocelli, Wayne

E. Pratt, Eric R. Stone

Associate Professors Eranda Jayawickreme, Janine M. Jennings, Lara

Kammrath, E.J. Masicampo, Christian E. Waugh

Assistant Professors Shannon T. Brady, Veronica Cole, Mason Garrison,

Anthony W. Sali

## Psychology, MA

### Degree Requirements

The degree requires 42 credit hours; 24 hours of coursework with an average grade of B or above plus 18 hours of thesis research. All hours must be in courses numbered 700 or above. All graduate students must write a major research paper and conduct and defend a thesis. All work must be completed within six years of the date of initial enrollment in the graduate program.

For additional degree requirements, see Requirements for Degrees.

## Religious Studies (REL)

### Master of Arts

#### Overview

The program provides students an opportunity to forge a unique, creative, and rigorous program of study. The degree can serve either as a terminal degree or as preparation for a doctoral program. It emphasizes the comparative and theoretical study of religion in its various traditions

and forms. Reflecting the teaching and research interests of the current graduate faculty in the department, the program fosters interdisciplinary approaches, offering training in traditional and contemporary theories and methods in conjunction with substantive investigations of diverse religious traditions and topics. Students are encouraged to make imaginative use of all available resources in the creation of their own distinctive programs of study. Typically, this would involve:

1. a focus on a particular religious culture/region or historical period, and
2. an approach or approaches to the study of the subject area.

For students interested in the Religion and Public Engagement Concentration, please see page 123.

The Master of Arts in Religion program began in 1967.

## Programs

- Religious Studies, MA
- Religious Studies, JD/MA

## Courses

In the list of courses offered with graduate credit, not every course is scheduled every year, but usually 1-2 courses at the 700-level are offered each year, including REL 700. In addition, we encourage students to approach individual professors to teach 700-level directed reading courses on specific topics. Substantive efforts are made to offer courses that are needed by students in either graduate course of study, and student input is welcome in determining the course schedule from semester to semester.

**REL 600. Approaches to the Study of Religion. (3 h)**

A phenomenological study of different ways of defining religion, including views of representative philosophers, psychologists, sociologists, anthropologists, theologians, and historians of religion.

**REL 604. Myth, Ritual, and Symbolism. (3 h)**

Explores how people envision and manipulate the supernatural in cross-cultural perspective. Emphasizes functional aspects of religious beliefs and practices.

**REL 605. Ethnography of Religion. (3 h)**

Study of theory and method in ethnography of religion where students closely read ethnographies from a variety of cultures and discuss the practical, methodological, and ethical issues related to ethnography. Course culminates with students researching and writing their own ethnographies.

**REL 606. Ritual Studies. (3 h)**

An introduction to the various methods and theories employed in the field of ritual studies, while examining comparative rituals and ritualized practices from around the world.

**REL 607. Magic, Science, and Religion. (3 h)**

Explores concepts of magic, science, and religion that emerged in Western thought and culture from late antiquity through the European Enlightenment and analyzes connections between religious traditions and Western, Modern Science.

**REL 608. Sacred Scripture in the Tradition of Abraham. (3 h)**

Comparative study of sacred texts in Judaism, Christianity, and Islam with particular attention to the issues of authority, function, and interpretations.



**REL 610. The Prophetic Literature. (3 h)**

Examination of the development and theological contents of the literary products of Israel's prophetic movement.

**REL 612. The Critical Study of the Pentateuch. (3 h)**

Study of the five traditional books of Moses (the Torah) and various lines of analysis that modern Biblical critics have used to interpret their composition and role in the development of Israelite theological thought.

**REL 613. Near Eastern Archeology. (3 h)**

Survey of twentieth-century archeology in the Near East with attention to its importance for Biblical studies.

**REL 615. Field Research in Biblical Archeology. (3 h)**

Study of the religion and culture of the ancient Near East through the excavation and interpretation of ancient sites.

**REL 616. Field Research in Biblical Archeology. (3 h)**

Study of the religion and culture of the ancient Near East through the excavation and interpretation of ancient sites.

**REL 617. The Wisdom Literature. (3 h)**

Examination of the development, literary characteristics, and theological contents of the works of ancient Israel's sages.

**REL 618. Feminist and Contemporary Interpretations of the Bible. (3 h)**

Study of feminist and contemporary approaches to the Bible in light of the history of interpretation and a range of contemporary concerns and interpretive contexts.

**REL 620. The Search for Jesus. (3 h)**

Introduction to the issues, assumptions, evidence, and debate that shapes the continuing quest for the historical Jesus.

**REL 623. Jesus Traditions. (3 h)**

Examines ancient Christian and other religious representations of Jesus in historical, social, cultural and theological context.

**REL 624. Early Christian Literature. (3 h)**

Examination of various literature and perspectives of the first three centuries of the Christian movement.

**REL 628. Jewish-Christian Relations and the New Testament. (3 h)**

Study of Jewish-Christian relations and selected writings of the New Testament in the historical, social, religious and political contexts of ancient Judaism and emerging Christianity. Focus varies with instructor.

**REL 629. Chinese Medicine. (3 h)**

An interdisciplinary exploration and analysis of Chinese medicine, its fundamental theories, and its range of health-oriented and religious applications.

**REL 630. Pope, Jefferson & Imam: A Study In Comparative Ethics. (3 h)**

Comparative study of the moral values and socio-ethical positions in the major religious traditions of the world, with focus on their various methods of reasoning and sources of authority.

**REL 631. Religion and Law. (3 h)**

A study of religion and law as distinct yet interdependent spheres that influence cultural negotiations about authority, power, identity, and the regulation of society. Geographic and tradition-specific focus may vary with instructor.

**REL 632. Religion and Public Engagement. (3 h)**

This seminar introduces students to dynamics at work at the interface between religious communities and the public sphere. It will explore, through a wide range of readings, guest lectures, and films, the potential for social change—constructive and destructive—within and between communities in locally, regionally, nationally and globally.

**REL 635. Christian Ethics and the Problem of War. (3 h)**

Examination of the causes and characteristics of war, various Christian responses to it, and approaches to peacemaking, with attention to selected contemporary issues.

**REL 636. Religious Traditions and Human Rights. (3 h)**

Study of the relationships and tensions between religious traditions and human rights, with illustrations from historical and contemporary issues and movements.

**REL 638. Religion Ethics and Politics. (3 h)**

Examination of ethical issues in religion and politics using materials from a variety of sources and historical periods.

**REL 639. Religion, Power and Society in Modern Africa. (3 h)**

Interdisciplinary study of the growth transformations of Africa's major religious traditions (Christianity, Islam, and the indigenous religions) and of their relations with secular social changes.

**REL 641. Religion and Ecology. (3 h)**

Cross-cultural examination of the relationships among human beings, their diverse cultures, habitats, and religions, including social and political understandings of the environment.

**REL 642. Religious Intolerance in U.S.. (3 h)**

Study of the various manifestations of religious intolerance in the U.S. from the colonial period until the present.

**REL 643. Religion, Culture, and the Body. (3 h)**

A cross-cultural, multi-disciplinary exploration of the body as a malleable locus of contested ideals that informs personal, social, and religious identity formation.

**REL 644. Religion, Poverty, and Social Entrepreneurship. (3 h)**

Interdisciplinary study of major themes in religion, poverty, reduction, and social entrepreneurship. Focus and community emphasis may vary with instructor.

**REL 645. The African American Religious Experience. (3 h)**

Exploration of the religious dimensions of African-American life from its African antecedents to contemporary figures and movements.

**REL 647. Religion, Gender, & Sexuality. (3 h)**

This course explores how "religion" regulates gender and sexuality by examining religious texts, media, and political rhetoric through feminist, queer, and postcolonial theory. Through an analysis of historical and contemporary debates and issues concerning gender and sexuality, this course considers how political, social, and religious institutions understand and deploy religious belief and discourse to legislate, repress, and pathologize certain criminal, deviant, immoral, or sinful.

**REL 648. Race, Memory, and Identity. (3 h)**

Explores the collective memory and identity of American-Indian and African-American communities and their response to historical trauma in their cultural imagination, spirituality, and political and social activism.

**REL 649. Asian Meditation Practices. (3 h)**

Introduces and examines theoretical and practical aspects of various forms of Eastern meditation (concentration, mindfulness, Zen, visualization, and moving energy work) from both practitioner and modern scientific perspectives.

**REL 651. Sociology of Religion. (3 h)**

Introduces the sociological analysis of religion, including religious beliefs and experiences, the cultural context of religion, varieties of religious organization, religious change and social change.

**REL 655. Jewish Identities: Religion, Race, and Rights. (3 h)**

Examines how evolving definitions of race, religion, and Jewishness have correlated and conflicted in varied and sometimes surprising ways and how these shifts have been tied to legal rights and social privileges.

**REL 656. Faces of Modern Judaism. (3 h)**

Examines contemporary expressions of Judaism and its historical roots.

**REL 657. Jews in the United States. (3 h)**

Focusing on the 19th-21st centuries, this course examines Jewish American histories, experiences, and identities, as well as their impact on American society as a whole.

**REL 659. Hinduism in America. (3 h)**

Study of the meanings, values, and practices associated with the religions of Hinduism in dialogue with the dominant culture of America.

**REL 660. Hindus, Muslims, and Sikhs in North America. (3 h)**

This course examines the racialization of Hinduism, Islam, Sikhism in North America. Through an analysis of historical documents, immigration laws, mainstream and social media, popular culture, and academic texts, this class explores how these religions are racialized in Canada and the US. Using a postcolonial and intersectional approach, we will examine how race, religion, gender, sexuality, and class interact to stigmatize or empower certain individuals and/or groups.

**REL 661. Topics in Buddhism. (3 h)**

Variable topics in buddhist history, thought, and/or practice. May be repeated for credit if topic varies.

**REL 662. Topics in Islam. (3 h)**

Examination of the origins and development of Islam, the world's second largest religious tradition. Attention is given to the formation of Islamic faith and practice as well as contemporary manifestations of Islam in Asia, Africa, and North America. May be repeated for credit if topic varies.

**REL 663. Religions of Japan. (3 h)**

Study of the central religious traditions of Japan from pre-history to the present, including Shinto, Buddhism, Zen Buddhism, Christianity, and Confucianism.

**REL 665. History of Religion in America. (3 h)**

Study of American religions from colonial times until the present.

**REL 667. Contemplative Traditions In Christianity. (3 h)**

Study of Christian mysticism and contemplation (spirit possession, visions, dreams, and meditation) and their relation to contemporary issues.

**REL 668. The Protestant and Catholic Reformations. (3 h)**

Study of the origin and development of Reformation theology and ecclesiology.

**REL 669. Radical Christian Movements. (3 h)**

Study of selected radical movements in the Christian tradition and their relation to contemporary issues.

**REL 672. History of Christian Thought. (1.5, 3 h)**

Study of recurring patterns in Christian thought across time and cultures and some of the implications of those patterns in representative ancient and modern figures.

**REL 672B. History of Christian Thought Medieval and Reformation Thought. (1.5 h)**

Study of the history of Christian thought, beginning with its Hebraic and Greek backgrounds and tracing its rise and development to modern times. The course may be divided into halves for 1.5 credits each: a) Patristic Thought and b) Medieval and Reformation Thought.

**REL 673. Special Topics in African-American Religious Traditions. (3 h)**

Variable topics in African-American religious traditions. May be repeated for credit if topic varies.

**REL 674. Black Messiahs and Uncle Toms. (3 h)**

Examines the cultural and religious history of black leadership in the United States.

**REL 675. Race, Myth, and the American Imagination. (3 h)**

A study of myth and mythology in relation to the racial imaginary in America.

**REL 676. Race, Religion, and Film. (3 h)**

Examines past and contemporary filmmakers who couple religious themes with racial concerns.

**REL 678. Latin American Liberation Theology. (3 h)**

Historical, contextual, and theoretical survey of diverse forms of Latin American theologies of liberation.

**REL 681. Zen Buddhism. (3 h)**

An examination of the origins and development of Zen Buddhism from China (Ch'an) to Japan and contemporary America. Particular attention is given to Zen doctrine and practice in the context of the broader Buddhist tradition.

**REL 682. Religion and Culture in China. (3 h)**

A thematic study of Chinese religious traditions and culture focusing on history, ritual, scripture, and popular practice. Topics include cosmology, ancestor veneration, shamanism, divination, and the role of women. Ford.

**REL 683. The Qur'an & the Prophet. (3 h)**

Examines the history, content, and main approaches to the sacred book of Islam. Explores the influence and interaction between the holy word and its transmitter the Prophet Muhammad.

**REL 684. Islam and Law: Varieties in Interpretation and Expression. (3 h)**

Explores main tenets of the Islamic law (Shari'ah) and how this law has been applied in past and present Islamic societies. Looks at legal issues through the lens of gender, ethics, non-muslim minorities, rights, and duties.

**REL 685. Topics in South Asian Religions. (3 h)**

Variable topics in the religions of South Asia. May be repeated for credit if topic varies.

**REL 686. Indian Epics. (3 h)**

Examines one or both Indian epics, the Mahabharata and Ramayana, while paying attention to either epic's religious, social, and political contexts, performance, and development in Indian history.

**REL 687. Priests, Warriors and Ascetics in Ancient India. (3 h)**

Introduces students to the history, culture and religious traditions of ancient India by examining the overlapping practices, beliefs, ideologies, and gender representations of priests, warriors, kings, and ascetics.

**REL 688. South Asian Women: Religion, Culture and Politics. (3 h)**

This course examines the intersection of religion, race, and gender of South Asian women from a feminist and postcolonial perspective. This course is cross-listed as WGS 688.

**REL 689. Islam in the West: Changes and Challenges. (3 h)**

Explores issues of identity, ethnicity and religion within various Muslim communities living in western countries. A central goal is to understand how these communities negotiate the new environment and the challenges they face.

**REL 690. Spec Topics in Religion. (1.5-3 h)**

Religion topics of special interest. May be repeated for credit.

**REL 691. Topics in East Asian Religions. (3 h)**

Variable topics in the religions of China, Korea, and Japan. May be repeated if topic varies.

**REL 692. Topics in First Peoples' Traditions. (3 h)**

Variable topics in the religions of American Indian and Canadian First Nations. May be repeated for credit if topic varies.

**REL 693. Topics in Religions of Africa. (3 h)**

Variable topics in the religions of Africa or African diaspora. May be repeated for credit if topic varies.

**REL 695. Exploring Interfaith Practice and Leadership. (3 h)**

This online course on interfaith leadership invites students to consider how they might engage most effectively with people from a variety of religious backgrounds.

**REL 696. Interreligious Encounters and Engagements. (3 h)**

Surveys the history of dialogue activities among various religious communities and introduces the methods and theories of interreligious dialogues. Part of this class is interaction with local interfaith projects.

**REL 700. Theory and Method in the Study of Religion. (3 h)**

Explores the history of and methodological resources for the study of religion. Focus may vary according to the instructor, but the emphasis is on the ways religion has been defined, studied and interpreted over the last several centuries.

**REL 701. Directed Reading. (1-3 h)**

May be repeated for credit if topic varies.

**REL 702. Directed Reading. (1-3 h)**

May be repeated for credit if topic varies.

**REL 703. Postmodern Perspective on Power, Symbolism and Performance. (3 h)**

A critical examination of postmodern theories on the relationship between religion and culture.

**REL 704. Conceptions of the Ultimate. (3 h)**

A comparative study of religious conceptions of the ultimate (divine, sacred) within Eastern and Western traditions through a range of methodological lenses including phenomenological, philosophical, theological, and sociological.

**REL 705. Research in Religion. (3 h)**

Tools and methodologies applicable to research in religion. Fulfills the three hours in research methods that the religion department requires of first-year MA students.

**REL 708. Religion Language & Symbol. (3 h)**

An examination of the distinct use of language in religious discourse, with attention to theoretical understandings of human language, the variety of philosophical efforts to define the validity of religious language, and the role of metaphor and analogy in religious communication.

**REL 709. Field Program in Religion and Public Engagement. (1-3 h)**

Integrated study of major themes in religion and public engagement carried out in partnership with one or more communities off campus. Focus varies with instructor. On request.

**REL 716. Old Testament Theology. (3 h)**

Major motifs of revelation in the Old Testament; analysis of recent attempts to write Old Testament theology.

**REL 718. Old Testament Exegesis. (3 h)**

Detailed analysis and exegesis of selected portions of the Hebrew Bible. P-Biblical Hebrew.

**REL 719. Old Testament Exegesis. (3 h)**

Detailed analysis and exegesis of selected portions of the Hebrew Bible. P-Biblical Hebrew.

**REL 720. The History of Biblical Interpretation. (3 h)**

A detailed study of the history of biblical interpretation and hermeneutics.

**REL 721. New Testament Theology. (3 h)**

Delineation of an approach to New Testament theology as a whole, a consideration of the hermeneutical problem, and an examination of two or three themes in New Testament theology.

**REL 723. New Testament Exegesis. (3 h)**

Examination of selected portions of the Greek New Testament, with attention to the tools necessary for exegesis. P-Koine Greek.

**REL 724. New Testament Exegesis. (3 h)**

Examination of selected portions of the Greek New Testament, with attention to the tools necessary for exegesis. P-Koine Greek.

**REL 726. Seminar in Early Christianity Studies. (3 h)**

Intensive study of selected topics and texts in early Christianity studies.

**REL 737. Figures and Traditions in Religious Ethics. (3 h)**

Seminar course that examines the basic ethical works and theories of central figures in Western and non-Western traditions. Students engage in close readings of important texts in religious thought and morality and produce essays reflecting on the themes addressed by the authors.

**REL 738. Seminar in Christian Social Ethics. (3 h)**

Critical study of classic texts and figures in the history of Christian ethics and social thought.

**REL 740. Seminar in the Sociology of Religion. (3 h)**

Examination of selected classical and contemporary texts illustrative of the theories, methods, and purposes of the sociological study of religion.

**REL 751. Theory and Practice of Pastoral Counseling. (3 h)**

Study of counseling methodologies, psychotherapeutic techniques, personal development, and human behavior in terms of the implications for pastoral counseling.

**REL 755. Clinical Pastoral Education. (3 h)**

Clinical experience in pastoral care, including work in crisis situations, seminars, interdisciplinary clinical group sessions, formal pastoral counseling, urban ministry assignments, and participation in group therapy. (Both semesters must be completed.)

**REL 756. Clinical Pastoral Education. (3 h)**

Clinical experience in pastoral care, including work in crisis situations, seminars, interdisciplinary clinical group sessions, formal pastoral counseling, urban ministry assignments, and participation in group therapy. (Both semesters must be completed.)

**REL 761. Seminar in Eastern Religion. (3 h)**

Directed study in the selected areas of the religious traditions of the East.

**REL 762. Literature of Ancient Judaism. (3 h)**

Examination of the rabbinic writings (Mishnah, Tosefta, Talmud, Midrashim, Targumim, and the Liturgy), the Dead Sea Scrolls, The Old Testament Apocrypha and Pseudepigrapha, and the literature of Hellenistic Judaism (e.g., Philo and Josephus).

**REL 763. Hellenistic Religions. (3 h)**

Considerations of available source materials, questions of method, and bibliography related to such Hellenistic religions as the Mysteria, Hellenistic Judaism, and Gnosticism.

**REL 766. Seminar in Christian History. (3 h)**

Directed study of selected areas in the history of Christianity, including Baptist history.

**REL 768. The Protestant and Catholic Reformations. (3 h)**

Study of the origin and development of Reformation theology and ecclesiology.

**REL 771. Religions in America. (3 h)**

A study of religious traditions, events, and individuals shaping religious life in America. Attention is given to native religious, colonization, denominations, awakenings, religious liberty, the western movement, and the rise of the "American Self." The development of pluralism and the impact of immigration, civil rights, and "new religions" are also studied.

**REL 775. Seminar in the History of Christian Thought. (3 h)**

Intensive study of a selected period or movement in Christian theological history, with special reference to seminal persons and writings.

**REL 780. Seminar in Theology & Lit. (3 h)**

Intensive study of a single theologian in relation to a literary figure with a similar religious outlook, the aim being to investigate how literature and theology mutually invigorate and call each other into question. Representative pairings: Niebuhr/Auden, Barth/O'Connor, Tillich/Updike, Newman/Eliot, Kierkegaard/Percy. May be repeated for credit if the writers studied are different.

**REL 781. Special Topics in Religion. (3 h)**

An intensive, in-depth study of a selected issue in the study of religion. Focus varies with instructor. May be repeated if topic varies.

**REL 791. Thesis Research I. (1-9 h)**

May be repeated for credit. Satisfactory/Unsatisfactory.

**REL 792. Thesis Research II. (1-9 h)**

May be repeated for credit. Satisfactory/Unsatisfactory.

## Faculty

Program Director Mary Foskett

Chair Lynn Neal

Associate Chair Mary Foskett

Professors Stephen Boyd, Jay Ford, Mary Foskett, Kenneth Hoglund,

Simeon Ilesanmi, Lynn Neal, Nelly van Doorn-Harder, Jarrod Whitaker

Associate Professors Lucas Johnston, Ron Neal

Associate Teaching Professor Tanisha Ramachandran

Assistant Professor Annalise Glauz-Todrank

Emeritus Professor Fred Horton

## Religious Studies, MA

### Degree Requirements

The M.A. in Religious Studies is a course intensive program that requires a total of 36 hours of coursework and the submission of a portfolio in the final semester of the program. At least 12 of the 36 hours in coursework must be in courses numbered 700 or above, and one of these courses must be "REL 700: Theory and Method in the Study of Religion." The remaining 24 hours may be in courses at either the 600-level or 700-level.

No less than one month before the end of their final semester, students must submit a final portfolio to a committee consisting of one professor of their choice and the graduate director. The final portfolio includes the student's resume, personal statement, a selection of 3 papers (at least 1 theoretical) from any graduate-level courses they have taken during their M.A. coursework, and a 12-15 page reflection paper that discusses their intellectual trajectory, engagement with theory and method, and personal growth across the 3 papers and the way in which the student's views of "religion," broadly defined, have developed. In addition, students will present and discuss their portfolio with their committee in a meeting lasting no longer than one hour. The portfolio will be graded pass/fail

(with an option to resubmit) and the committee will consider its overall presentation, clarity of expression and purpose, depth of reflection, and the student's articulation of what they have learned through their course of study.

## Thesis Option

A thesis option may be pursued by students who wish to undertake substantial independent research and who are already thinking and writing in a succinct, analytical, and sophisticated manner. Permission to write a thesis to complete the M.A. in Religious Studies is dependent on submitting a thesis proposal that earns the approval of the graduate director and proposed primary thesis adviser. If no faculty member in the Department for the Study of Religions agrees to serve as Primary Adviser, then the student cannot write a thesis. Students writing a thesis must also form a thesis committee of 3 faculty (2 must come from the Department for the Study of Religions) and pass an oral defense of the thesis before the committee.

The M.A. in Religious Studies Thesis Option requires a total of 36 hours course work. At least 12 hours of coursework (not counting thesis research hours) must be in courses numbered 700 or above, and one of these courses must be "REL 700: Theory and Method in the Study of Religion." A further 18 hours may be in courses at either the 600-level or 700-level (not counting thesis research hours). The final 6 hours are to be taken as thesis research (REL 791 and REL 792), typically in the final semester of study. Students who write an M.A. thesis do not submit a portfolio for graduation.

## Thesis Proposal

In order to write a thesis, the student must have a primary thesis adviser from the Department for the Study of Religions faculty, and a committee comprising two additional faculty in relevant areas of research (one of whom must also be a member of the Department for the Study of Religions). Students interested in writing a thesis to complete the M.A., are encouraged to seek out a primary thesis adviser before the end of their second semester in the M.A. program. To receive permission to write an M.A. thesis, the student must submit a well-researched thesis proposal in her or his third semester of study (by or before October 15th) that earns the approval of the graduate program director and the primary thesis adviser. The proposal must be 6-10 pages in length, with a clear synopsis of the thesis argument, proposed chapters, a timeline for chapter submission, and an annotated bibliography. If the student cannot demonstrate both their ability to pursue the thesis independently and that enough preparation has been done to lead to the successful completion of the thesis in the fourth semester, the advisory committee will withhold approval of the thesis option and the student will continue in the course intensive program that is the norm for the M.A. program. The decision to approve or not approve the thesis proposal will be made jointly by the Graduate Program Director and the primary thesis adviser by or before October 31st.

## Thesis Length and Quality

The length of the thesis is to be decided between the student and the primary faculty adviser, but the department recommends no more than 100 pages. At minimum, the department expects that the thesis should be a publishable, article-length paper (35-50 pages) accompanied by substantial sources. It should be original work and can be a heavy reworking of a previous term paper or other research efforts. The thesis process culminates in an oral examination by a committee of at least



three faculty members who must assess the thesis according to the normal guidelines (see Graduate Handbook).

## Language Requirements

In addition to the University's requirements for the M.A., the Department for the Study of Religions strongly recommends and encourages proficiency in a foreign research language relating to the student's area of study, whether ancient or modern. Proficiency is normally a minimum of two years of work in a specific language at the university level or equivalent and may include, but not limited to, the following:

- Hebrew
- Greek
- Sanskrit
- Arabic
- Spanish
- French
- German
- Chinese
- Japanese

A second research language is not required, but may be advised depending on the student's area of study and their plans after graduation (i.e., whether or not they plan on pursuing a Ph.D.). For example, students working on the Hebrew Bible, New Testament, or Sanskrit literature may be advised to learn German (the German Department offers a reading course for graduate students most summers: GER 001: German for Science and Humanities).

For additional degree requirements, see Requirements for Degrees.

## Sustainability (SUS)

### Master of Arts

#### Overview

This innovative and distinctive one-year program combines social sciences, humanities, natural sciences, management and law. Courses taught will include guest lecturers and off-site facility visits. As a result, students will have unparalleled opportunities to engage with professionals beyond the Wake Forest campus. In addition to completing the four core courses, students will engage with organizations outside of the classroom through the completion of a two-credit practicum in Applied Sustainability as well as through course electives. In the summer following the second semester, students will complete a research thesis or internship.

The program's mission is to educate the next generation of leaders in sustainability and place them where they can be most effective. We provide students with a high caliber education and prepare them to enter the workforce or create new ventures to address the social, economic and environmental demands in their respective fields. We educate students to be change agents and develop a vision for ways to invest in and contribute to creating a sustainable future. The program expands Wake Forest's commitment to sustainability and creates opportunities for faculty members to direct their teaching and scholarship toward sustainability-related topics. The multidisciplinary program strengthens collaboration among the different schools at Wake Forest University and the greater communities of business, government agencies, and non-government organizations.

Candidates do not share a typical background nor are they required to have completed specific prerequisites prior to matriculation. The profile of a candidate will typically take the form of an accomplished mid-career professional seeking to re-orient or supplement their career with deep expertise in the field of sustainability, or a recent undergraduate from an accredited institution of higher education. The integrated curriculum of our programs prepares students to join the vanguard of the sustainability movement, which is generating extensive and diverse opportunities for graduates in both large and small private business, as well as in NGOs, and government bodies. Candidates for the degree will explore and inform their calling in sustainability and add value to their professional endeavors while simultaneously satisfying the urgent societal need for highly knowledgeable leaders in the field of sustainability.

## Programs

- Sustainability, MA
- Sustainability, JD/MA
- Sustainability, MDiv/MA
- Sustainability, Certificate

## Courses

### SUS 600. Communications Workshop. (1 h)

Effective, persuasive communication requires clarity, engaging language, sound reasoning, and an informed appreciation of audience. To that end, this workshop seeks to equip students as change agents that can effectively articulate a vision for ways to invest in and contribute to creating a sustainable future. Specifically, the Communication Skills Workshop teaches you how to apply such concepts to forms of written (e.g., memos) and oral (e.g., PowerPoint presentations) communication typically found in business and non-profit organizational settings. The workshop includes numerous interactive lessons that focus on the essentials of dynamic and economical writing, argument and evidentiary analysis, engaging and well-researched oral presentations, and audience adaptation.

### SUS 601. Professional & Leadership Skills. (1 h)

This workshop will support students in understanding and developing the skills required to be thought leaders in the sustainability field. Learning will focus on leadership skills required to create meaningful change in various organizational settings. Topics include influencing others, collaborating in teams, managing conflict and working across cultures. To enhance self-awareness we will employ self-assessments and the creation of a program-long development plan.

### SUS 602. Scientific Literacy. (1 h)

In this course we will focus on the nature of scientific inquiry, and explore how it is pursued, reported, and applied. In particular, we will focus on the intersection of climate science and the scientific study of attitudes/beliefs about climate science. We will also explore the projected impacts on and policy responses from the state of North Carolina.



**SUS 603. Natural Capital Valuation and Ecosystem Services. (1 h)**

This workshop introduces the concept of Ecosystem Services and Natural Capital Valuation in theory and practice. It focuses broadly on the concept of natural capital and the process of valuing ecosystem services, and more closely on how the process is working at multiple scales in policy, markets and projects. Ecosystem services is a new and rapidly growing field that crosses science, policy and management. Practitioners have varied expertise; from spatial modelers, research scientist, and economists, to policy makers and social scientists. We will cover some of the historical development and current state of the ecosystem services markets specifically for carbon and water. Critical spatial tools of GIS and spatial modeling of ecosystem services are also introduced.

**SUS 691. Special Topics. (1-3 h)**

Examination of topics not covered in the regular curriculum.

**SUS 694. Internship. (1-4 h)**

Internships are available for a student who has completed one year of graduate study and desires experience working in the private sector or a nonprofit or government agency. Internships typically take place during the summer months and last for three months, although the timing and duration may be adjusted to satisfy each student's needs and the type of internship available. Credit hours are adjusted based on the length of the internship. The student receives a written evaluation from the host organization mentor and is required to submit a written report of his/her work. May be repeated for up to 4 credits.

**SUS 695. Individual Study. (1-3 h)**

Opportunity to pursue a topic covered in a regular course in greater depth or topics relevant to the student's field of concentration. Usually involves extensive reading and tutorial sessions with a faculty supervisor. Written papers may be required. May be repeated for up to 6 credits.

**SUS 701. Global Human Systems. (3 h)**

Sustainability is a human term with context specific connotations—in other words deployments of the term in the public sphere often tell us more about the perceptions and values of those utilizing the term than they do about what is central to achieving sustainability. In this course we will interrogate the ways in which uses of this human term intersect with earth systems and politics. Students will gain a basic understanding of earth systems science, gather historical data related to human impacts on earth systems, and study human values as they relate to the other-than-human entities with which they share their habitats. Fundamentally, the goal of this course is to go beyond the traditional disciplinary divides (natural science, social sciences, and humanities), to begin to sketch the outlines of each of these areas while highlighting important convergences and differences.

**SUS 702. Sustainable Organizational Mgt. (3 h)**

Are organizations part of the problem or part of the solution – or both? What practices will produce desirable organizational outcomes and improve the environment? This course will provide information to address these questions. It will include an overview of the presence and impact of sustainable practices in private and public sector organizations. The course information and experiences will equip participants with the ability to think critically about the trade-offs inherent in the relationship between certain organizational decisions and sustainability best practices.

**SUS 703. Natural Science for Sustainability. (3 h)**

Students will explore qualitative and quantitative chemical and physical aspects of sustainability for waste, water, air, and energy. The course provides an in-depth scientific understanding of the most important nonrenewable and renewable energy sources. Students will study the world's present and future energy needs, focus on energy production, consumption, and environmental impact, and explore ways in which these principles relate to sustainability. The sustainability and environmental trade off of different energy systems will be studied.

**SUS 704. Environmental Law & Policy. (3 h)**

To understand how we can move toward sustainability domestically and abroad, we must understand how and why law and policy are developed, challenged, and changed. This course will look at the historical development of environmentalism and the movements that provided the impetus for modern environmental legal regimes, as well as case studies illustrating contemporary environmental issues. We will cover common law and statutory remedies for private citizens, principles of federalism and separation of powers, agency rulemaking, the role of the judiciary in environmental law and policy, and international environmental law. Each case study in this course will emphasize one of the major U.S. environmental statutes, so that upon completion of the course you will not only have a foundation in law and policy processes but also a familiarity with the most significant U.S. statutory schemes.

**SUS 705. Applied Sustainability 1. (2 h)**

This course will introduce you to the practice of building sustainable systems in today's world. In it you should improve your ability to understand design principles for sustainability, assess sustainability actions of organizations at all levels, use different frameworks to track and assess sustainability, and apply your skill in effectively managing change. The objective of this course is for us to learn how to advance sustainability today, see what might be done in the future, and identify opportunities that exist for each of us. We will use a variety of learning experiences, including site visits, group presentations and in class presentations by outside leaders.

**SUS 706. Applied Sustainability: Creativity and Impact. (2 h)**

Applied Sustainability is crafted to experience sustainability in action through Human Centered Design. Human Centered Design is a philosophy, a set of abilities, a set of mindsets, and a set of practices that proves invaluable in addressing the sustainability issues of our time. This way of working is a making based approach to problem solving and solution development. You will apply and practice the mindsets and abilities of design in different scenarios and different scales to address sustainability problems, and develop and build on new to the world ideas. This class is project oriented and team based. This course as a journey culminates with a client/community based sustainability practicum. Overall, this class emphasizes new ways of approaching work and life.

**SUS 710. Sustainable Urban Planning and the Built Environment. (3 h)**

This course will explore the tenets of sustainable construction and high performance building practices and prepare students for the U.S. Green Building Council's LEED Green Associate Exam. LEED, or Leadership in Energy & Environmental Design, is a certification program that recognizes best-in-class building strategies practices. Sustainable architecture and construction seeks to minimize the negative environmental impact of buildings by efficiency and moderation in the use of materials, energy, and development space. This course widens the conversation to include how buildings and other community planning impacts urban environments. The focus of this planning is to satisfy construction and design goals with sustainable outcomes.

**SUS 715. Environmental Sustainability in a Global Context. (2 h)**

Students will develop practical problem-solving skills that address the challenges of climate change in an international context. This experiential learning course employs a variety of interdisciplinary approaches to explore concepts related to climate change adaptation. Students will interact with practitioners and stakeholders in various economic and political sectors to develop a group client-based project that supports real policy and management decisions on sustainable practices. Students will have the opportunity to travel internationally to visit affected areas and meet with government officials, researchers, conservationists, and economic planners. This course offers students a firsthand opportunity to conduct field research, hone interviewing practices, draft policy reports, and engage clients.

**SUS 720. Sustainability Practices & Policy in a National Context. (1 h)**

This seminar is designed specifically for graduate students in sustainability, students who are early and mid-career professionals looking to transition into careers in sustainability or environmental protection through business, government, NGOs, policy institutes or non-profits. Students will hear from and meet with a range of experts in climate change and sustainability, learn about the work they do and get a clear understanding of the challenges they face (practically and politically) and the impact they can have. This seminar will model possible career paths and provide networking opportunities.

**SUS 791. Thesis Research. (1-4 h)**

Research directed toward fulfilling the capstone requirement. May be repeated for up to a total of 4 credits.

**Faculty**

Program Director Stan Meiburg  
Professors Miles Silman, Abdou Lachgar,  
John Knox, Dick Schneider  
Associate Professor David Phillips  
Assistant Professors Ron Von Burg  
Assistant Teaching Professor Rowena Kirby-Straker  
Affiliate Faculty Roian Atwood, Jon Clift, Rebecca Dickson, Norm Fraley,  
Scott Schang, Elizabeth Pierce, Charlie Schwarze, Linda Whited

**Sustainability, MA**  
**Degree Requirements**

Students are required to complete a minimum of 30 credit hours from the following courses:

Code	Title	Hours
SUS 600	Communications Workshop	1
SUS 601	Professional&Leadership Skills	1
SUS 602	Scientific Literacy	1
SUS 603	Natural Capital Valuation and Ecosystem Services	1
SUS 701	Global Human Systems	3
SUS 702	Sustainable Organizational Mgt	3
SUS 703	Natural Science for Sustainability	3
SUS 704	Environmental Law & Policy	3
SUS 705	Applied Sustainability 1	2
SUS 706	Applied Sustainability: Creativity and Impact	2
Select 6 credit hours of electives		6
SUS 694	Internship	4

or SUS 791	Thesis Research
<b>Total Hours</b>	<b>30</b>

For additional degree requirements, see Requirements for Degrees.

**Dual Degrees**

- Bioethics, BA/BS & MA Five Year Program
- Bioethics, JD/MA
- Bioethics, MD/MA
- Bioethics, MDiv/MA
- Computer Science, BS & MS Five Year Program
- Counseling, MDiv/MA
- Education, MDiv/MAED
- MD/PhD
- PhD/MBA
- Religious Studies, JD/MA
- Sustainability, JD/MA
- Sustainability, MDiv/MA

**Bioethics, BA/BS & MA Five Year Program**

*(Available to WFU undergraduate students)*

Program Co-Directors Nancy King and Ana Iltis

**Overview**

Sponsored by Wake Forest College and the WFU Graduate School of Arts & Sciences, the Bachelor of Arts/Sciences & Master of Arts in Bioethics can be completed in as little as 5 years (10 semesters + 1 summer). By allowing students who are admitted to the program to begin graduate bioethics coursework while enrolled through the College, students are able to earn two degrees in less time than it would take to earn the two degrees separately.

Undergraduate students must complete all requirements for the undergraduate program, including major, minor, and general requirements (generally, 120 credit hours). Students who are in a position to complete the 120 credit hours required for the undergraduate degree in fewer than the typical four years and are accepted into the five year program may take up to nine credit hours of graduate level bioethics courses while they are enrolled in the College. The Graduate School will accept those credit hours toward the Master of Arts in Bioethics degree if they are above and beyond the minimum 120 hours required to receive a BA/BS. The graduate credit hours earned toward the MA degree during the undergraduate years may not be part of the 120 credit hours required for the undergraduate degree.

Students accepted to the program spend their first four years full-time in the College, followed by a year or more in the bioethics program. The year typically will consist of two semesters plus a summer for students who complete at least six hours of transferable graduate work during their undergraduate years. Because students must complete all of the requirements for the undergraduate degree independently of their Bioethics coursework, students receive their BA/BS degrees when they complete their BA/BS graduation requirements. The MA is awarded separately after completion of the MA requirements. The five year program requires undergraduates to enroll in 700-level bioethics

courses. As part of their acceptance into the program, all accepted students will meet criteria for enrollment of undergraduate students in graduate courses.

Typically, students interested in the BA/BS & MA in Bioethics apply no later than the spring semester of their junior year. Students should alert the Associate Director of the Bioethics Graduate Program of their intent to apply and follow the usual procedures for making an application for admission to a graduate program at the Graduate School of Arts & Sciences. Effective 2021-2022, in order to be considered eligible for admission, the Graduate Record Examination (GRE) is optional (recommended but not required). Candidates may request to submit verifiable test scores from another graduate or professional entrance examination in a relevant field (e.g. LSAT, MCAT, etc.). Only students in good academic standing according to the standards of Wake Forest College should apply.

To remain in the program, students must remain in good academic standing with both Wake Forest College and the Graduate School of Arts & Sciences.

## Degree Requirements

The degree requires 30 credit hours; 24 hours of coursework with an average grade of B or above plus 6 hours of thesis research. At least 12 of the 24 hours must be in courses numbered 700 or above. The remaining 12 hours may be in either 600 or 700 level courses. All work must be completed within six years of the date of initial enrollment in the graduate program.

For additional degree requirements, see Requirements for Degrees.

## Bioethics, JD/MA

Program Co-Directors Nancy King and Mark Hall

### Overview

Under the joint auspices of the Wake Forest University School of Law and the Graduate School of Arts and Sciences, the JD/MA in Bioethics facilitates an interdisciplinary and comparative study of law and bioethics and encourages students whose academic or career interests require gaining competence in both disciplines. By allowing some law courses to count as electives toward the MA degree, as well as by allowing some graduate bioethics courses to count among the elective credits permitted within the JD curriculum, students are able to earn the dual degree in less time than it would take to earn the two degrees separately. The student in the JD/MA divides his/her time between the School of Law and the Bioethics Graduate Program and benefits not only from an array of course offerings from both curricula, but also from the social and general intellectual life of both academic programs.

## Degree Requirements

Students may receive the dual degree in as little as seven semesters, usually registering with the School of Law for six semesters and with the Graduate School for at least one semester. The dual degree grants 12 hours of law credit for bioethics coursework and 6 hours of bioethics credit for law coursework. Typically, students spend their first year full-time in the law school, complete 12 bioethics hours during their 2nd and 3rd years of law school, and enroll for one semester full-time in the Bioethics program to complete an additional 6 hours of bioethics coursework plus 6 hours of thesis research.

For additional degree requirements, see Requirements for Degrees.

## Admissions

Admission to the dual JD/MA program is a two-tiered process. Students interested in the program must apply separately to the School of Law and the Graduate School of Arts and Sciences and be accepted for admission by both schools. These applications do not need to be simultaneous, but they should indicate their intent to be considered for the dual degree program on their respective applications to the School of Law and the Graduate School. Alternatively, students may submit a separate application to enroll in the dual degree program if already admitted to either School. In order to be considered eligible for admission, the JD/MA candidate must complete Law School admission requirements for standardized test (currently, the Law School Admission Test (LSAT) or Graduate Record Examination (GRE)). For the Bioethics Graduate Program, the Graduate Record Examination (GRE) test can be waived on request with submission of LSAT scores (or other standardized test). Final decision about admission to the program is made by a joint committee of the JD/MA program. Students should consult the prospectuses of both schools for information about tuition and financial assistance.

To continue in the program, students must remain in good academic standing in both the School of Law and the Graduate School of Arts & Sciences.

## Bioethics, MD/MA

Program Co-Directors Nancy King and Mark Hall

### Overview

The Wake Forest University School of Medicine and Graduate School of Arts and Sciences offers a dual degree program, Doctor of Medicine (MD) and Master of Arts in Bioethics (MA). The program's objective is to facilitate an interdisciplinary and comparative study of bioethics and medicine, and to encourage students whose academic or career interests require gaining competence in both disciplines. Students are able to earn two advanced degrees in less time than it would take to earn the two degrees separately.

The dual degree program in bioethics and medicine signals the commitment of both the School of Medicine and the Graduate School of Arts and Sciences to interdisciplinary collaboration and learning.

By spending their time in both the Medical School and the Bioethics Graduate Program, students benefit not only from an array of course offerings from both curricula, but also from the social and general intellectual life of both academic programs.

Students accepted to the MD/MA in Bioethics dual degree program spend four full years in medical school and one year in the Bioethics Program. After completing initial clerkships in third year OR after initial rotations of the fourth year of medical school curriculum, students enroll in the MA in Bioethics program from August-August and then return to the School of Medicine to finish their medical school curriculum. The students in the five year program will complete their MA in Bioethics and have the degree conferred at the conclusion of the time (11 ½ months) in the bioethics program.

## Degree Requirements

The bioethics requirements of the MD/MA in bioethics dual degree are 24 hours of (bioethics) coursework and 6 hours of (bioethics) thesis

research. At least 12 of the 24 hours must be in courses numbered 700 or above. The remaining 12 hours may be in either 600 or 700 level courses.

For additional degree requirements, see Requirements for Degrees.

## Admissions

Admission to the MD/MA in Bioethics dual degree program is a two-tiered process. Students interested in the program must apply separately to the School of Medicine and the Graduate School of Arts and Sciences and be accepted for admission by both schools. Application to the Graduate School of Arts and Sciences should be made after notifying the appropriate individuals in the School of Medicine to discuss and receive approval for a leave of absence if accepted in the MA in Bioethics Graduate program. The applicant will have already taken the Medical College Admission Test (MCAT). In order to be considered eligible for admission to the dual degree program, the applicant will provide their MCAT scores as part of the Graduate School/bioethics application. Students should consult the prospectuses of both schools for information about tuition and financial assistance.

To continue in the program, students must remain in good academic standing under the minimum standards of both the School of Medicine and the Graduate School of Arts & Sciences.

## Bioethics, MDiv/MA

Program Co-Directors Nancy King and Mark Hall

### Overview

Sponsored by the Wake Forest University School of Divinity and the Graduate School of Arts & Sciences, the MDiv/MA in Bioethics facilitates an interdisciplinary conversation between theology and bioethics and provides resources for students whose vocational aims require knowledge and/or competence in both disciplines.

The MDiv/MA can be completed in as little as seven semesters. A student typically completes two and one-half years of work (five semesters) primarily in the School of Divinity. The final two semesters are completed in the Bioethics Graduate Program but with some electives taken in the School of Divinity. Shared courses are dual degree appropriate, selected from a list of courses agreed upon by the School of Divinity and the Bioethics Graduate Program.

### Degree Requirements

A MDiv/MA Bioethics student earns 61 credit hours from the Divinity program, 26 credit hours from the Bioethics program (including a 6-credit thesis requirement), and 4 elective credit hours from either program.

For additional degree requirements, see Requirements for Degrees.

## Admissions

Admission to the dual degree program is a two-tiered process. Interested students must apply separately to the School of Divinity and the Graduate School of Arts and Sciences and be accepted for admission by both schools. These applications do not need to be simultaneous, but students should indicate on each application their desire to be considered for the dual degree program. Applications are reviewed separately by each program's admissions committee. Alternatively, students may submit a separate application to enroll in the dual degree program if already admitted to either School. Typically, students make application to the dual degree program by the time they complete one

semester in either School. A joint admissions committee composed of members from both schools makes final admissions decisions. The joint committee also oversees and reviews admissions policies for the dual degree. Effective 2021-2022, the Graduate Record Exam (GRE) is optional (though strongly recommended) for applications to the Bioethics Graduate Program. The School of Divinity recommends, but does not require, GRE scores.

Students are required to follow the student handbook of the school through which they are enrolled. To continue in the program, a student must remain in good academic standing with both the School of Divinity and the Graduate School of Arts and Sciences.

## Computer Science, BS & MS Five Year Program

*(Available to WFU undergraduate students)*

Program Director Samuel S. Cho

### Overview

This program allows Wake Forest University undergraduates pursuing a B.S. degree in Computer Science to also complete an M.S. degree in Computer Science with one additional year of study. Admitted students begin computer science graduate coursework during their senior year, complete an approved internship the following summer, and then finish the remaining graduate coursework the following academic year. This program provides a unique combination of computer science graduate coursework and experiential learning in a professional setting and it is an excellent option for students seeking a more industry-oriented career.

Applicants must be enrolled in and complete the B.S. degree in Computer Science at Wake Forest University. Students must apply for admission before the spring semester of their junior year and only after completing eighteen hours in the major that must include:

Code	Title	Hours
CSC 241	Computer Systems	4
CSC 221	Data Structures and Algorithms I	3
MST 121 or MST 205	Linear Algebra I Introduction to Linear Algebra and Differential Equations	3

Applicants must have a major and overall GPA of 3.25 or better at the time of application and undergraduate graduation. In addition, applicants must provide three recommendation letters (submitted via the Graduate School), two of which must be from Wake Forest University computer science faculty. The Graduate Record Examination (GRE) is not required for admission.

### Degree Requirements

In addition to completing the requirements for the B.S. degree in Computer Science (this includes completion with a major and an overall GPA of at least 3.25), the program requires the completion of thirty-three semester hours of graduate coursework. The coursework must include the twelve-hour core consisting of:

Code	Title	Hours
CSC 631	Software Engineering	3
CSC 641	Operating Systems	3



CSC 702	Theory of Computation	3
CSC 721	Theory of Algorithms	3
<b>Total Hours</b>		<b>12</b>

Given the short duration of this program, the thirty-three hours of graduate coursework will be completed as follows: Admitted students must enroll in at least nine hours of computer science graduate coursework during their senior year. Students must also complete six hours of approved computer science graduate internship coursework during the summer following the completion of their undergraduate degree. The remaining eighteen hours of coursework will be completed during the next academic year and are selected from computer science graduate courses with at least three of these hours from 700-level courses. Note the following courses cannot be used to complete this program:

Code	Title	Hours
CSC 791	Thesis Research I	1-9
CSC 792	Thesis Research II	1-9
CSC 795	Project	3

For additional degree requirements, see Requirements for Degrees.

## Counseling, MDiv/MA

Program Co-Director (*Counseling*) Bob Nations

Program Co-Director (*Divinity*) Mark Jensen

### Overview

Students in the dual degree program will spend the first two years of the four-year program in the Divinity School. The second two years of the dual degree program will be spent satisfying the requirements of the Master of Arts degree in the on-campus program.

## Degree Requirements

### MDIV Program

First Two Years. The School of Divinity's regular Program of Study requires 50 hours of required courses and 28 hours of general electives for a total of 78 hours. The program of study for dual degree students would include 47 hours of required courses (with the internship met in CPE) and a minimum of 6 hours of electives in the School of Divinity. The remaining elective credits for the MDiv are satisfied by CNS courses in the second two years.

### MA Program

Second Two Years. The Department of Counseling's Program of Study requires 42 hours of Core Courses, 9 hours of Clinical Courses, and 9 hours in a Program Specialty Area for a total of 60 hours. The program of study for dual degree students would be the same as those students in the Counseling Program.

Upon successful completion of the counseling program, students will receive both the Master of Divinity and the Master of Arts degrees.

For additional degree requirements, see Requirements for Degrees.

## Admissions

Admission to the dual degree program is a two-tiered process. Up to three students per year will be admitted. Applicants must be accepted for admission by both the Graduate School and the Divinity School.

Applicants are required to submit a separate application to each school by January 15. Applications for the Counseling Program are submitted through the Graduate School of Arts and Sciences at <http://graduate.wfu.edu>. Applications for the Divinity School are submitted directly to the Divinity School at <http://www.wfu.edu/divinity> (<http://www.wfu.edu/divinity/>).

## Education, MDiv/MAED

Program Director Leah McCoy

### Overview

The School of Divinity and the Graduate School offers a dual degree that:

1. promotes interdisciplinary conversation between theological education, public education, and community engagement; and
2. provides students pathways for developing skills and acquiring competencies necessary for achieving excellence in careers where religious leadership and education intersect.

These degrees provide distinctive vocational perspectives and opportunities not available separately in the education or divinity degree programs.

The dual degree curriculum includes foundational requirements from both divinity and education. It is estimated that the time required to complete the dual degree is seven semesters and two summer sessions. Integrative components include an education internship in a context approved by the Master of Arts in Education program in conversation with the School of Divinity's Art of Ministry (internship) director and a capstone requirement that either through research or an advanced internship encourages students to consider connections between the two fields of study. Advisers from both degree programs work with students to determine an elective course strategy that most effectively prepares each student to succeed as a religious leader who is also a public educator.

Typical Program Outline:

Year	Fall	Spring	Summer
One	Divinity	Divinity	Education (12 hrs)
Two	Mainly Education	Education	Education (6 hrs)
Three	Divinity	Divinity	
Four	Divinity		

Note: Year Two and Year Three are interchangeable.

## Admissions

Candidates for the dual degree must apply both to the Graduate School of Arts and Sciences and the School of Divinity, following the admissions' requirements of the respective programs, and be accepted to each program. A joint committee consisting of faculty/staff representatives both from divinity and education will make final determinations about an applicant's suitability for the dual degree.

## MD/PhD

Program Director Christopher Whitlow



## Overview

An MD/PhD dual degree offers graduates outstanding opportunities in the new era of biomedical research of the 21st century. The invaluable perspective of an MD/PhD graduate positions the physician scientist as a crucial link in translating scientific research into improving human health and reducing disease.

With the increasing sophistication of research tools, MD's without extensive formal research training rarely have the depth of knowledge needed to progress rapidly as a research scientist. The increasing pace of research, the need for knowledge in specific techniques, and the competition in funding have made it more difficult for MD clinicians to succeed in a research-intensive career. Optimal training is provided by combining an MD with a PhD academic program.

The MD/PhD program, a combined effort between the School of Medicine and the Graduate School of Arts and Sciences, is an integrated program where neither the MD nor the PhD degree is compromised. The student gains the full perspective for identification and analysis of problems related to human health while receiving rigorous training in a basic or translational research discipline—training which provides the depth of knowledge of scientific logic and techniques for an effective, exciting, and successful career in medical research.

The program seeks outstanding students who have already shown aptitude and enthusiasm for research.

## Structure of the Program

The duration of the program typically is seven years. During the summer before entry into medical school, beginning in early June, students attend an orientation program to introduce faculty and available research opportunities. An eight-week research rotation is conducted with a selected member of the participating graduate faculty. This research rotation (and subsequent ones, if needed) familiarize students with faculty and their fields of expertise; usually one of these faculty are chosen as the student's graduate (PhD) advisor.

**Years One and Two.** The first two academic years are spent as a medical student. Phase I (seven months) introduces core biochemical knowledge, including development and structure of the human body (gross, microscopic, embryological, and radiological anatomy) and basic cellular functions (biochemistry, molecular biology and genetics, immunology, introduction to pathology).

**Phase II (months 8-20)** includes courses in systems pathophysiology (physiology, pharmacology, microbiology and pathology), and a two-month period for a second rotation in a lab of the selected graduate program in the summer after the first year.

Medicine as a profession, clinical decision making, and epidemiology studies are included in both Phases I and II.

During these years, the student usually attends a graduate seminar course. The seminar meets once a week and provides a continuing in-depth introduction to the chosen graduate discipline in addition to social and intellectual contact with other graduate students and faculty.

If possible, the student chooses a graduate adviser by the end of Phase II of the medical curriculum. Otherwise, the summer after Phase II may be used for another laboratory rotation, prior to choosing an adviser.

At the beginning of year three students will remain with their medical school class for a three month clinical experience. These three months

are spent learning basic clinical skills on internal medicine rotations and introduce the students to the practice of medicine providing basic skills in completing the history and physical exam experience during the graduate school years in an out-patient clinic. These three months of training will also increase the flexibility for returning to medical school upon completion of the graduate degree. After completion of the three clinical months the students will then join the graduate school with the new cohort of graduate students.

**Years Three through Five:** During the graduate school years, the student participates in a monthly outpatient clinical experience. Students rotate at a clinic for the underserved, working with faculty and private practice physicians. Participation in this clinic not only helps to maintain clinical skills but gives the student experience with balancing research and clinical responsibilities.

The third year is spent taking advanced basic science courses and conducting research. Didactic coursework is intended to supplement the biomedical knowledge base built in the medical school curriculum. Program or departmental courses also provide a more discipline-specific focus and, therefore, depend on the chosen graduate program.

The duration of the dissertation research may vary but typically is completed in years three-to-five and, if needed, a portion of year six. The PhD dissertation is completed and defended prior to returning to clinical studies.

**Years Six and Seven.** The student completes eighteen months of required clinical rotations (Phase III of the clinical curriculum) which include internal medicine, surgery, pediatrics, obstetrics, women's health, neurology, psychiatry, radiology, anesthesiology, family and community medicine, and emergency medicine. Four months of elective time are spent in other clinical experiences or may be used for completion of graduate studies prior to returning to the medical curriculum. This part of the schedule is tailored to the individual student with the approval of the graduate advisor, MD/PhD program director, and the Associate Deans for medical education and student services.

**Conferring of Degrees.** The PhD degree is conferred in the semester in which all requirements for that degree are met. The MD degree shall be awarded upon completion of the program.

## Participating Graduate Programs

- Track 3 - Biology
- Track 4 - Molecular and Cellular Biosciences:
  - Biochemistry and Molecular Biology
  - Cancer Biology
  - Microbiology and Immunology
  - Molecular Medicine and Translational Science
  - Molecular Genetics and Genomics
- Track 5 - Integrated Physiology and Pharmacology
- Track 6 - Neuroscience
- Track 7 - Biomedical Engineering

## Mechanism of Application

Both the School of Medicine and the Graduate School evaluate the applicant's credentials. The MCAT is the required standardized test for all applicants.

Initial application is through the American Medical College Application Service (AMCAS). When the School of Medicine receives AMCAS

applications, students are sent supplemental forms for application to the School of Medicine. The applicant should indicate interest in the combined MD/PhD program on the supplemental application. The School of Medicine supplemental packet requests an evaluation by the applicant's premedical advisory committee. For the MD/PhD program, the applicant should also include letters of evaluation specifically addressing his or her research experience and abilities.

This is a highly competitive, limited program. Students who matriculate receive tuition scholarships throughout the program. In addition to outstanding grades and MCAT scores, the applicant should provide evidence of enthusiasm and aptitude for research, with prior research experience beyond that of college courses. This is an important factor in evaluation of the application.

After the supplemental application packet, MCAT scores, and letter(s) of evaluation are received, the completed application is reviewed by the committees on admissions of the MD/PhD program. A small percentage of applicants are then asked to visit the University for interviews from October through March.

## PhD/MBA

Program Director Dwayne Godwin

### Overview

In addition to intensive doctoral training, the PhD/MBA program incorporates core knowledge of business and managerial skills to provide the student with a marketable, competitive advantage, whether the student finds employment in industry or academia. Graduates choosing to pursue a traditional tenure-track faculty position will have the managerial and business training to initiate and operate their own research laboratories and to collaborate more effectively with the private sector. Graduates choosing a non-traditional career path will be prepared to exercise their research training in management positions in the pharmaceutical industry, private foundations, government agencies, or university research and technology transfer offices.

### Structure of the Program

The program is a synthesis of curricula from the Graduate School and the Evening MBA Program of the Wake Forest University School of Business, with specialized coursework and opportunities for industrial and business internships. The joint program is open to all PhD-granting programs across all Wake Forest campuses. It has taken students approximately 5 years to complete the joint program, depending on the nature of the graduate research undertaken in the home program. The first year of the curriculum provides students with a core base of knowledge in biomedical sciences and includes training in the core competencies of the home graduate program. At the same time students begin to be exposed to issues related to research and design, career development, and journal clubs. Laboratory rotations usually occur in this first year in accord with Program or Track requirements. The students typically begin their dissertation research during the second year. At the end of the second year and before beginning MBA coursework, the student is required to take and pass a qualifying exam that will admit him or her to candidacy for the PhD.

A student enrolling in the PhD/MBA program will have 5-6 semesters of evening MBA courses added to his or her graduate degree requirements. Opportunities for industrial projects and internships are possible after ascent to PhD candidacy and during the MBA coursework phase. The PhD

and MBA degrees are awarded simultaneously at the completion of all requirements for both degrees.

## Application Process

Admissions are administered through the Graduate School of Arts and Sciences. Students wishing to enroll in the program must apply to both programs and meet the respective admissions requirements of the Graduate School of Arts and Sciences and the Wake Forest University School of Business. Admission to the MBA portion of the program can occur separately after gaining admission to the home graduate program and after securing appropriate release from the home program for participation in the joint program (this is in the form of a letter from the thesis advisor cosigned by the program director). In addition to the application a copy of the letter should be submitted to Dr. Dwayne Godwin, Dean, Graduate School of Arts and Sciences and Director, PhD/MBA program. The Graduate Record Exam is accepted for admission to the joint program. Prospective students should also submit a one-page statement of interest indicating future plans for use of the joint degree, official transcripts from each college or university attended, and three completed recommendation forms.

Before admission to the program, the applicants are required to complete a personal interview with the PhD/MBA program director and the Wake Forest University School of Business. After the interview phase, the top applicants may be offered admission to the joint program.

## Religious Studies, JD/MA

Program Director Mary Foskett

### Overview

The JD/MA in Religious Studies dual-degree program facilitates an interdisciplinary and comparative study of law and religion and encourages students whose academic or career interests require gaining competence in both disciplines. Students interested in this joint degree must apply to each program separately.

Students who enter the joint degree program can combine the standard three-year law curriculum and the standard two-year MA curriculum into a four-year dual-degree program. Students will first complete a year of work in the Department for the Study of Religions. Years 2 and 3 will be completed in the School of Law. For the 4th year, students will enroll in each school for one semester, completing any remaining degree requirements and elective courses that are appropriate for the dual-degree.

## Degree Requirements

### Law School Requirements

When undertaken as part of the JD/MA in Religious Studies dual-degree program, the JD degree requires completion of the degree requirements prescribed by the law school for graduation. Applicants should familiarize themselves with requirements pertaining to the LSAT (<https://www.lsac.org/jd/lsat/>) or GRE (<https://www.ets.org/gre/>), the JD application (<https://os.lsac.org/release/startup.aspx?appl=5885A1>), the LSAC Credential Assembly Service (CAS) (<https://www.lsac.org/jd/applying-to-law-school/cas/>), and the MA in Religious Studies application (<http://graduate.wfu.edu/apply-now-to-the-wake-forest-graduate-school/>).

To submit your GRE score(s), applicants need to log into their ETS account and select Wake Forest University School of Law as a recipient using ETS institution code 3760. You must submit all GRE scores from the past 5 years. LSAT scores from the past 5 years are automatically provided to Wake Forest University when you apply. Any test scores provided (LSAT, GRE, or both) will be considered in your admissions decision.

## Department for the Study of Religions Requirements

The dual-degree requires completion of 27 hours of graduate coursework in Religious Studies. At least 9 of the 27 hours in coursework must be in courses numbered 700 or above, and one of these courses must be “REL 700: Theory and Method in the Study of Religion.” The remaining 18 hours may be in courses at either the 600-level or 700-level. No less than one month before the end of their final semester, students must submit a final portfolio to a committee consisting of one professor of their choice and the graduate director. The final portfolio includes the student’s resume, personal statement, a selection of 3 papers (at least 1 theoretical) from any graduate-level courses they have taken during their M.A. coursework, and a 12-15 page reflection paper that discusses their intellectual trajectory, engagement with theory and method, and personal growth across the 3 papers and the way in which the student’s views of “religion,” broadly defined, have developed. In addition, students will present and discuss their portfolio with their committee in a meeting lasting no longer than one hour. The portfolio will be graded pass/fail (with an option to resubmit) and the committee will consider its overall presentation, clarity of expression and purpose, depth of reflection, and the student’s articulation of what they have learned through their course of study.

In special cases, students can finish the degree on the Thesis Option. To finish the JD/MA in Religious Studies dual-degree program on the Thesis Option, the student must submit a thesis proposal a full semester before their final semester in the Department for the Study of Religions and receive approval from the graduate program director. The student, however, must take a minimum of 24 hours of coursework as outlined above and complete an additional 6 hours of thesis research (REL 791 and REL 792), typically in the final semester of study. In total, the student would thus be required to finish the MA degree on the Thesis Option with 30 hours of coursework in Religious Studies, rather than the standard 27 hours.

For additional degree requirements, see Requirements for Degrees.

## Sustainability, JD/MA

Program Director Stan Meiburg

### Overview

The Sustainability Program and School of Law have designed an innovative dual degree program to provide students a pathway for succeeding in professional roles where legal scholarship and practice intersect with sustainability.

Students will expand their potential workforce networks, deepen their knowledge base, and cultivate leadership skills. Attorneys seeking to work in a sustainability related practice area will benefit greatly from foundational knowledge gained through coursework focusing on energy, environmental and sustainability related studies.

## Degree Requirements

The dual degree requires completion of 78 hours of law coursework including the degree requirements prescribed by the Law School for graduation and 22 hours of coursework in the Sustainability program. The joint degrees are designed to be completed in six semesters and one full summer session.

### MA in Sustainability Course Requirements

Code	Title	Hours
SUS 600	Communications Workshop	1
SUS 601	Professional&Leadership Skills	1
SUS 602	Scientific Literacy	1
SUS 603	Natural Capital Valuation and Ecosystem Services	1
SUS 701	Global Human Systems	3
SUS 702	Sustainable Organizational Mgt	3
SUS 703	Natural Science for Sustainability	3
SUS 704	Environmental Law & Policy *	3
SUS 705	Applied Sustainability 1	2
or SUS 706	Applied Sustainability: Creativity and Impact	
SUS 694	Internship	4
or SUS 791	Thesis Research	

In addition, you must complete at least 9 credit hours of the following sustainability-related law courses:

Code	Title	Hours
LAW 512	Environmental Law	2-3
LAW 414	Energy Law	2-3
LAW 437	Food Law and Policy	2
LAW 443	Sustainable Corporations	2-3
LAW 656	International Environmental Law	2-3
LAW 530	Natural Resources Law	2
LAW 642	Animal Law	2
LAW 536	Land Use Regulation and Planning	2-3
LAW 641	Regulatory Law and Policy	3
LAW 690	Environmental Law Clinic Environmental Law and Policy Clinic (P/F)	4
SUS 704	Environmental Law & Policy **	3

- \* SUS 704 requirement may be fulfilled by taking 3 credit hours of sustainability-related law courses
- \*\* SUS 704 can count toward the nine sustainability-related law credits

For additional degree requirements, see Requirements for Degrees.

## Admissions

Candidates for the dual degree program must apply to both the Graduate School of Arts and Sciences and the School of Law, following the admissions’ requirements of the respective programs. Applicants must be accepted to each program in order to pursue the dual degree. A committee consisting of faculty and staff from both the School of Law and the Sustainability Graduate Program will make final determination about an applicant’s suitability for the program.

Wake Forest students already enrolled in the JD program are encouraged to apply in the spring semester of their 1st year. Current students may

apply after this time, but completion of the program will not follow the traditional three-year plan of study.

## Sustainability, MDiv/MA

Program Director Stan Meiburg

### Overview

This dual degree program acknowledges the growing demand for professionals in religious leadership who have the knowledge and the skills to lead communities to respond to critical ecological and other social issues. Congregations and other religiously affiliated organizations are increasingly interested in sustainability concerns and seek leaders who can guide their efforts. Knowledge from the biological, physical, chemical, and earth sciences is critical to working professionals who design and implement sustainability practices. The humanities and social sciences incorporate information about spirituality, religious beliefs, and an understanding and appreciation of our relationship to the natural world.

This degree is a collaborative project shared by the Graduate School of Arts and Sciences and the School of Divinity.

### Degree Requirements

The MDiv/MA in Sustainability dual degree is designed to be 93 credit hours completed in seven semesters plus one full summer session based on full-time enrollment.

- 21 hours of required course work specific to the MA in Sustainability
- 13 hours of required course work shared by the two degree programs; these courses constitute the integrative foundation of the joint degree.

Code	Title	Hours
SUS 701	Global Human Systems	3
SUS 702	Sustainable Organizational Mgt	3
SUS 703	Natural Science for Sustainability	3
SUS 704	Environmental Law & Policy	3
SUS 705	Applied Sustainability 1	2
or SUS 706	Applied Sustainability: Creativity and Impact	
SUS 694	Internship	4
or SUS 791	Thesis Research	
Any Sustainability elective		3
MIN 542A & MIN 542B & MIN 602A & MIN 602B	Internship and Internship and Internship Reflection Seminar and Internship Reflection Seminar (two semesters)	3
MIN 706	Directed Reflection in Applied Sustainability	1
Elective coursework in either the School of Divinity or Sustainability Graduate Program		9
<b>Total Hours</b>		<b>34</b>

For additional degree requirements, see Requirements for Degrees.

### Admissions

Candidates for the dual degree program must apply to both the Graduate School of Arts and Sciences and the School of Divinity, following the

admissions' requirements of the respective programs. Applicants must be accepted to each program in order to pursue the dual degree. A committee consisting of faculty and staff from both the School of Divinity and the Sustainability Graduate Program will make final determination about an applicant's suitability for the program.

## Certificates

- Bioethics, Certificate
- Curriculum, Instruction, and Assessment, Certificate
- Data Science, Certificate
- Interpreting and Translation Studies, Certificates
- Medieval and Early Modern Studies, Certificate
- Structural and Computational Biophysics (SCB), Certificate
- Sustainability, Certificate

## Bioethics, Certificate

*(General, Biomedical Research Ethics, or Clinical Bioethics)*

Program Co-Directors Nancy King and Mark Hall

### Overview

This certificate provides students with basic knowledge and skills that enable them to better address bioethics issues that arise in biomedical research, clinical practice, and health policy. The Graduate Certificate is a freestanding program of graduate study in which students attend the same classes as students in the Master of Arts (MA) in the Bioethics Graduate Program.

Admitted students may enroll in the general Graduate Certificate program or may specialize by enrolling in the Graduate Certificate in Biomedical Research Ethics or the Graduate Certificate in Clinical Bioethics. The specialized certificate options require courses within the general requirements described below. In their first semester of study, all Graduate Certificate students must enroll in at least one required course prior to or concurrently with taking any elective course.

### Course Requirements

The Graduate Certificate requires 12 credit hours of course work with an average grade of B or above. At least 9 credit hours must come from required courses in the MA in Bioethics program. There is no thesis requirement. All work must be completed within four years of the date of initial enrollment in the graduate program. Up to 3 hours of transfer credit may be considered in place of elective course work. Transfer credit acceptance is based on review and approval of grades, course syllabi, and other relevant information. The minimum GPA required for completion is 3.0.

The Graduate Certificate in Biomedical Research Ethics requires students to enroll in BIE 702: Biomedical Research Ethics for 3 of the 9 credit hours of required/core courses. The Graduate Certificate in Clinical Bioethics requires students to enroll in BIE 705: Clinical Ethics for 3 of the 9 credit hours of required courses. Students in the specialized certificate programs may utilize elective courses designed to provide supervised observational and experiential opportunities in relevant settings.

## Curriculum, Instruction, and Assessment, Certificate

Program Director Leah McCoy

## Overview

This program prepares graduate students in disciplines other than Education for teaching at any level. The program provides a solid grounding in educational curriculum, instruction, and assessment.

While this program does not qualify students for a public-school teaching license, it provides a base of knowledge of curriculum, instruction, and assessment. Teachers would be well-prepared to teach in settings which do not require a license, such as private or independent schools, or to enter programs such as Teach for America. International teachers would gain a good understanding of American education.

## Course Requirements

A total of fifteen credits, five three-hour courses, are required. The curriculum includes two required basic courses in Learning and Cognitive Science, and Educational Policy and Practice. The other three courses are selected from graduate courses in Education, which enables the students to focus on area of interest. The minimum GPA required for completion is 3.0.

## Data Science, Certificate

*(Programs of Computer Science and Mathematics & Statistics)*

### Overview

The Wake Forest University Certificate in Data Science program seeks to train and mentor students to become well qualified scientists and researchers. The certificate provides training in algorithms for structured and unstructured datasets, as well as statistical modeling techniques for such datasets. Students will study the theory and application of databases, data processing, data mining, statistical modeling and statistical learning.

Students who successfully complete the program will receive a certificate in Data Science, as well as a degree in any other graduate programs in which they matriculate. The program is implemented by collaboration among the programs of Computer Science and Mathematics & Statistics at Wake Forest University. For currently enrolled Wake Forest Graduate students, following matriculation and at least one semester of coursework in a graduate program, students can apply for admission. Admission is initiated by meeting with one of the Co-Directors. The student will then submit a letter of intent and a Wake Forest University graduate transcript to the admissions committee. The letter of intent should express the student's interest in the program, a proposed plan of study, and how the program meets the student's career and academic goals. Following favorable evaluation, applicants may be recommended for admission by the admissions committee, with final approval determined by the Graduate School. Students not enrolled in a Wake Forest graduate program may apply directly to the program.

Prior to admission, applicants must have completed coursework (or demonstrate sufficient background) in calculus, linear algebra, and introductory statistics, as well as computer programming and also a background course covering data structures, algorithms, and complexity (material equivalent to CSC 201). Gaps in student preparation should be discussed with the program Co-Directors. Students enrolled in the certificate program as well as another graduate program must complete all graduate degree requirements in the individual department to which they were admitted.



## Requirements

Students must take 15 credits, with two courses selected from each of Areas A and B, and one elective. The Co-Directors are tasked with approving a student's plan of coursework. In particular, any courses from Areas A and B taken from outside a student's home department should not count towards both the certificate as well as their degree program.

Students completing a thesis related to Data Science may count up to three credits of independent study towards the Certificate, with approval from the DS Co-Directors. Graduate students who were previously Wake Forest University undergraduate students and took the 300-level equivalent of any courses in Area A or Area B are exempted from those course requirements, but still must complete a total of 15 credits at the 600 or 700 level by selecting additional electives.

Students completing a thesis related to Data Science may count up to three credits of independent study towards the Certificate, with approval from the DS Co-Directors. Graduate students who were previously Wake Forest University undergraduate students and took the 300-level equivalent of any courses in Area A or Area B are exempted from those course requirements, but still must complete a total of 15 credits at the 600 or 700 level by selecting additional electives.

## Area A -- Statistical Modeling and Statistical Learning

Code	Title	Hours
Select two of the following:		
STA 612	Linear Models	3
STA 662	Multivariate Statistics	3
STA 663	Introduction to Statistical Learning	3

## Area B -- Computational Data Science

Code	Title	Hours
Select two of the following:		
CSC 621	Database Management Systems	3
CSC 622	Data Management and Analytics	3
CSC 673	Data Mining	3
CSC 675	Neural Networks and Deep Learning	3
or CSC 764	Machine Learning	

## Electives

One additional graduate elective selected from STA, an approved course from MST, or a CSC course.

Code	Title	Hours
Select one of the following:		
Any CSC course listed in but not taken as part of fulfilling the Area B requirements		3
CSC 652	Numerical Linear Algebra	3
CSC 655	Introduction to Numerical Methods	3
CSC 646	Parallel Computation	3
CSC 647	GPU Programming	3
CSC 671	Artificial Intelligence	3
CSC 726	Parallel Algorithms	3

Students in the program have access to state-of-the-art equipment and facilities in multiple departments, including the DEAC Linux cluster (deac.wfu.edu (<http://deac.wfu.edu>)). The Interdisciplinary Graduate Certificate Program in Data Science began in 2020.

## Faculty

Program Co-Directors Samuel Cho, Robert Erhardt  
 Professors Erin Fulp, Paúl Pauca, James Norris  
 Associate Professors Samuel Cho, Robert Erhardt, Jennifer Erway, Stan Thomas, William Turkett  
 Assistant Professors Gray Ballard, Lucy D'Agostino-McGowan, Staci Hepler, Sneha Jadhav, Natalia Khuri

## Interpreting and Translation Studies, Certificates

### Overview

Program Co-Directors, Olgierda Furmanek, Diego Burgos and Chaowei Zhu

For students who are not able or ready to commit to earning a Master of Arts degree in Interpreting and Translation Studies, but who would like to focus on an area of interest, the program offers three Graduate Certificates and one Post-Graduate Certificate in specialized areas. Pairing various certificates provides a comprehensive package for students to reach their career goals in a more flexible, customized manner.

### Certificates Offered

- Graduate Certificate in Interpreting Studies (language-specific)
- Graduate Certificate in Translation Studies (language-specific)
- Graduate Certificate in Intercultural Services in Healthcare
- Post-Graduate Certificate in Teaching of Interpreting (students with an MA, MS, or MBA)

## Course Requirements

Students are required to complete 15 credit hours of instruction within four consecutive semesters. The minimum GPA required for completion is 3.0.

## Medieval and Early Modern Studies, Certificate

*(Departments of English, Romance Languages, History, Political Science and International Affairs, Philosophy, Music, Classics, Art History, Divinity School, German, Humanities, Art History)*

### Overview

This certificate is designed to allow students in English to both broaden their knowledge of and focus their studies on the medieval period. It combines programmatic interdisciplinary coursework, training in the technical skills of medieval studies, and linguistic preparation. The program offers students a competitive advantage in admission to doctoral programs. Students may be admitted to the program by permission of the directors upon admission or anytime during their first year.

Students must complete all requirements for the Master of Arts degree. Courses satisfying the certificate may overlap with program requirements but requires coursework beyond that of the Master of Arts degree.

The certificate generally does not require more time to complete than the Master of Arts program in English. Students are strongly encouraged to apply for extramural fellowships to study one or more summers at the international sites where a medieval studies curriculum is available (e.g., St Peter's College at Oxford [see the medieval studies minor in the Wake Forest University Undergraduate Bulletin for details]). Students may apply two of the courses taken for the Master of Arts degree toward the certificate program with approval of the graduate committee.

Students may avail themselves of many activities and opportunities including the medieval studies lecture series; the paper competition that rewards the winners with funding to the International Congress on Medieval Studies at Western Michigan University; the Gordon A. Melson Graduate Student Award in Medieval Studies, specifically awarded to an outstanding graduate student to attend the International Congress on Medieval Studies at Western Michigan University; the medieval studies summer program at St. Peter's College, Oxford; the annual Wake Forest Medieval Studies Student Society Conference, a student-organized interdisciplinary conference inviting participation from graduates and undergraduates from surrounding universities; the medieval section of the department's library in the Archie Ammons English Department Faculty Lounge; the establishment of internships and fellowships for *La corónica: A Journal of Medieval Spanish Language, Literature and Cultural Studies* (see the website at <http://college.holycross.edu/lacoronica>), edited by Professor Sol Miguel-Prendes, a medievalist in the Romance Language department.

## Course Requirements

Students are required to take a minimum of 12 credit hours with a medieval focus; these courses should represent two different disciplinary fields in addition to that of the student's home department. In consultation with the program director, one or more of these additional courses may be taken as directed reading or as medieval language courses. The graduate thesis must have a medieval focus, and the thesis committee should have at least two participating departments represented. The minimum GPA required for completion is 3.0.

## Faculty

Program Director Herman Rapaport

Professors Stewart Carter, Roberta Morosini, Mary Pendergraft, Gale Sigal, Harry Titus

Associate Professors Bernadine Barnes, Michaelle Browsers, Jefferson Holdridge, Judy Kem, Sol Miguel-Prendes, Monique O'Connell, Olga Valbuena-Hanson, Neal Walls

Assistant Professors Patrick Toner, Charles Wilkins

Adjunct Associate Professor Darlene Rae May

## Structural and Computational Biophysics (SCB), Certificate

*(Programs of Biology, Chemistry, Computer Science, Mathematics and Statistics, Molecular and Cellular Biosciences, and Physics)*

## Overview

This certificate is designed to meet the need for scientists and educators with broad, interdisciplinary training in the quantitative biological, biochemical, and biomedical sciences. Students who successfully complete the certificate and degree requirements will receive a certificate in Structural and Computational Biophysics, as well as the degree in the program in which they matriculate. The program is a collaboration among the programs of Biology, Chemistry, Computer Science, Mathematics and Statistics, Molecular and Cellular Biosciences and Physics.

Following matriculation and at least one semester of coursework in a participating program (currently Biology, Chemistry, Computer Science, Mathematics and Statistics, Molecular and Cellular Biosciences and Physics), students can apply for admission to this certificate program. Admission is initiated by meeting with the SCB program director. The student will then submit a letter of intent and a graduate transcript to their department representative or to their program director. The letter of intent should express the student's interest in the program, a proposed plan of study, and how the program meets the student's career and academic goals. Following favorable evaluation, applicants may be recommended for admission by the program director, with final approval determined by the Graduate School.

Students have access to state-of-the-art equipment and facilities in multiple departments, including the Wake Forest Structural Biology Facility ([csb.wfu.edu](http://csb.wfu.edu) (<http://csb.wfu.edu>)), the DEAC Linux cluster ([deac.wfu.edu](http://deac.wfu.edu) (<http://csb.wfu.edu>)), and well-equipped research laboratories in biophysics, biochemistry, and biomedical engineering.

The interdisciplinary certificate program in Structural and Computational Biophysics began in 2005. Information on the program and links to faculty research interests can be accessed at [scb.wfu.edu](http://scb.wfu.edu).

## Course Requirements

Students will follow the curriculum for the Graduate Program in which they are seeking a degree. Master degree students must be pursuing a thesis option. Fifteen hours in SCB-related courses including two hours in each of three areas below, one hour of discussion group for credit and two hours of journal club (the other six hours are in the student's area of specialty). Coursework is deliberately flexible, and courses will be approved by program director. Students will successfully complete a course in scientific ethics (GRD 713/ GRD 714 recommended).

Student dissertation/thesis committee must have members from three different SCB associated departments. The dissertation/thesis must involve original, interdisciplinary research in the area of structural and computational biophysics or computational biology; broadly defined.

## Courses of Instruction

Approved courses are listed below. Additional courses or substitutions may be approved by the program director. Course descriptions can be found under the department which administers the course.

### SCB-Specific Courses

**SCB 701. Structural and Computational Biophysics Journal Club.** (1 h) Seminal and current publications in structural and computational biophysics are read and discussed. P-Admission to the SCB graduate certificate program or POI.

**SCB 710. Research Topics in Structural and Computational Biophysics. (1 h)**

Lectures and discussions on research topics in the field of structural and computational biophysics and biology. Topics depend on the specialty of the instructors in a given semester. P-Admission to the SCB graduate certificate program or POI.

**Curriculum Area 1. Chemistry/Biochemistry**

General prerequisites: Two semesters of undergraduate chemistry and one semester of undergraduate biochemistry or molecular biology. Additional prerequisites may be required by course.

Code	Title	Hours
BIO 670	Biochemistry: Macromolecules and Metabolism	3
BIO 672	Advanced Molecular Biology	3
BIO 775	Microscopy for the Biological Sciences	4
BIO 779	Molecular Techniques in Evolution and Systematics	4
CHM 624	Medicinal Chemistry	3
CHM 641	Physical Chemistry	3
CHM 673	Biochemistry Protein and Nucleic Acid Structure and Function	3
CHM 676	Biophysical Chemistry	3
CHM 751	Biochemistry of Nucleic Acids	1.5-3
CHM 752	Protein Chemistry	1.5-3
CHM 753	Chemical Biology	3
CHM 755	Biomolecular Mass Spectrometry: Fundamentals and Applications	1.5-3
CHM 756	Biomolecular NMR	1.5
CHM 757	Macromolecular Crystallography	1.5
MCB 700	Analytical Skills	1
MCB 701	Molecular&Cellular Biosciences	1-6
MCB 711	Biological Systems&Structures	2

**Curriculum Area 2. Physics**

General prerequisites: Two semesters of undergraduate physics. Additional prerequisites may be required by course.

Code	Title	Hours
PHY 607	Biophysics	3
PHY 620	Physics of Macromolecules	3
PHY 625	Biophysical Methods Lab	1
PHY 685	Bioinformatics	3

**Curriculum Area 3. Computer Science/Mathematics/Statistics**

General computer science prerequisites: Programming in a high-level language. Additional prerequisites may be required by course.

Code	Title	Hours
CSC 621	Database Management Systems	3
CSC 631	Software Engineering	3
CSC 646	Parallel Computation	3
CSC 652	Numerical Linear Algebra	3
CSC/MST 655	Introduction to Numerical Methods	3
CSC 671	Artificial Intelligence	3
CSC 685	Bioinformatics	3
CSC 687	Computational Systems Biology	3

CSC 721	Theory of Algorithms	3
CSC/MST 753	Nonlinear Optimization	3
CSC/MST 754	Numerical Methods for Partial Differential Equations	3
CSC 775	Neural Networks	3
MST 605	Applied Multivariable Mathematics	3
MST 606	Advanced Mathematics for the Physical Sciences	3
MST 626	Numerical Linear Algebra	3
MST 652	Partial Differential Equations	3
MST 654	Discrete Dynamical System	3
MST 757	Stochastic Processes and Applications	3
PHY 635	Computational Physics	3
STA 611	Statistical Inference	3
STA 612	Linear Models	3
STA 652	Networks: Models and Analysis	3
STA 662	Multivariate Statistics	3
STA 663	Introduction to Statistical Learning	3

**Faculty**

Program Director Freddie R. Salsbury Jr

Professors Rebecca Alexander, Edward E. Allen, Ulrich Bierbach, Keith D. Bonin, James F. Curran, Larry W. Daniel, Martin Guthold, Thomas J. Hollis, David J. John, W. Todd Lowther, Daniel B. Kim-Shapiro, S. Bruce King, Douglas S. Lyles, Jed C. Macosko, Gloria K. Muday, James Norris, Fred W. Perrino, Leslie B. Poole, Freddie R. Salsbury Jr., Peter Santiago, Stan J. Thomas

Associate Professors Paul Pauca, Brian W. Tague, William H. Turkett Jr.

Assistant Professors Adam Hall, Derek Parsonage

**Sustainability, Certificate Overview**

Students are provided with exposure to sustainability issues in the natural sciences, social sciences, humanities, business management, law, and policy. Students will utilize our program as a mechanism for adding value to their professional endeavors while simultaneously satisfying the urgent societal need for highly knowledgeable leaders in the field of sustainability. The certificate can be obtained on a stand-alone basis or in conjunction with another graduate program. Students in the certificate program may transition to the Master of Arts degree. An application must be submitted, and admission approved.

**Course Requirements**

Students will complete the following for a total of 12 credit hours to earn the certificate.

Code	Title	Hours
SUS 701	Global Human Systems	3
SUS 702	Sustainable Organizational Mgt	3
SUS 703	Natural Science for Sustainability	3
SUS 704	Environmental Law & Policy	3
<b>Total Hours</b>		<b>12</b>

**Faculty**

Program Director Stan Meiburg

Professors Miles Silman, Abdou Lachgar, John Knox, Dick Schneider  
Associate Professor David Phillips  
Assistant Professor Ron Von Burg  
Assistant Teaching Professor Rowena Kirby-Straker  
Affiliate Faculty Roian Atwood, Jon Clift, Rebecca Dickson, Norm Fraley,  
Scott Schang, Elizabeth Pierce, Charlie Schwarze, Linda Whited

Concentrations

- Religion and Public Engagement Concentration
- Women's, Gender, and Sexuality Studies Concentration

Religion and Public Engagement Concentration

Director Lucas Johnston

Overview

This unique concentration encourages theoretical and practical exploration at the intersection of religion and public life, the concentration is open to all students, who want to explore the world and make a difference, regardless of their major or academic background.

Students can take what they learn in the classroom and apply it to the real world by engaging in public work through research projects, service-learning opportunities, and internships for academic credit. These internships can take our concentrators to various parts of the world.

By working with the most qualified professors in various specialties, students develop competence in public engagement in reciprocal collaboration with diverse communities regionally, nationally, and globally. Embracing the spirit of pro-humanitate, this concentration allows students to pursue their deepest interests and directs them towards community development consistent with internationally accepted standards of human rights and the highest academic standards of teaching, research and collaboration.

The student must achieve a B or higher in the concentration and complete the major degree of study for it to be noted on the transcript. The RPE director will certify completion of the concentration.

Requirements

Course Requirements: 12 hours

Code	Title	Hours
Required Core Courses		
REL 632	Religion and Public Engagement	3
REL 709	Field Program in Religion and Public Engagement	3
Elective Courses		
Select six hours of the following with approval RPE Director and Program Director.		6
Theory		
REL 605	Ethnography of Religion	
REL 636	Religious Traditions and Human Rights	
REL 638	Religion Ethics and Politics	
THS 621	Christianity and Public Policy	
REL 700	Theory and Method in the Study of Religion	

Skills		
REL 631	Religion and Law	
LAW 582	Non-Profit Organization Law	
LAW 601	Community Law and Business Clinic I	
Content		
REL 618	Feminist and Contemporary Interpretations of the Bible	3
REL 669	Radical Christian Movements	
REL 690	Spec Topics in Religion	
REL 648	Race, Memory, and Identity	
REL 361	Topics in Buddhism	
MIN 790	Topics Courses	
THS 624	Church & State in America	
Internship		
A supervised internship with approved community partner for a total of one semester or one full summer **		
Total Hours		15

- \* All MA students must take REL 700, but this does not count toward the 12 hours required for the graduate RPE concentration.
- \*\* Includes assigned readings, a sustained research and writing portfolio, and an oral presentation.

Women's, Gender, and Sexuality Studies Concentration

Director Wanda Balzano

Overview

This concentration will provide students the opportunity to study gender and sexuality from a variety of disciplinary perspectives in conjunction with their study toward a graduate degree. Interdisciplinary by nature, Women's, Gender, and Sexuality Studies courses primarily address the diversity of gendered experiences based on race, ethnicity, class, religion, nationality, and sexual orientation. The concentration is an appropriate option for students who wish to focus on gender and/or sexuality in their disciplinary field.

Applicants must declare their interest in the concentration to both the WGSS program director and the director of their own program of studies. The students must achieve a B or higher in the concentration and complete the major degree of study for it to be noted on the transcript. The WGSS program director will certify completion of the concentration.

Requirements

Course Requirements: 12 hours

Code	Title	Hours
Required Core Courses		
WGS 622	Introduction to Women's and Gender, and Sexuality Studies	3
or WGS 617	Introduction to Sexuality Studies	
WGS 698	Theory and Practice of Women, Gender, and Sexuality Studies	3
Elective Courses		



Select 6 hours of WGS courses	6
<b>Total Hours</b>	<b>12</b>

## Electives

Electives (6) are chosen from WGS courses which are cross listed in the home department and are selected with the assistance of the WGS advisor and program director.

If students have already taken any of the required courses in their undergraduate years, substitutions for electives are admitted, in consultation with the WGSS program director.

Additionally, students will be required to present their research at a conference, or at the WFU annual symposium on gender and sexuality, or at the WGSS colloquium for the S.P.E.A.K. series (Student Presentations on Experience, Arts, and Knowledge).

# COURSES A-Z

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## A

- Anthropology (ANT)
- Arabic (ARB)
- Art (ART)

## B

- Bioethics (BIE)
- Biology (BIO)

## C

- Chemistry (CHM)
- Communication (COM)
- Computer Science (CSC)
- Counseling (CNS)

## D

- Documentary Film Program (DOC)

## E

- Education (EDU)
- English (ENG)

## F

- French (FRH)

## G

- Graduate (GRD)

## H

- Health and Exercise Science (HES)
- Hindi-Urdu (HNU)
- History (HST)

## L

- Linguistics (LIN)

## M

- Mathematics and Statistics (MST)

## P

- Philosophy (PHI)
- Physics (PHY)
- Politics&International Affairs (POL)
- Psychology (PSY)

## R

- Religion (REL)

## S

- Spanish (SPA)
- Statistics (STA)
- Sustainability (SUS)

## T

- Translation Interpret Studies (TIS)

## W

- Women's and Gender Studies (WGS)

## Legend Overview

The Graduate School offers several courses; some are required by the program while others serve as general electives. Please consult the program requirements to determine which courses are mandatory.

## Course Legend

Semester hours of credit are shown by numerals immediately after the course title. The symbols P— and C— followed by course numbers or titles are used to show prerequisites and corequisites in the department. POI indicates permission of instructor is required. Because graduate study occurs at a level of complexity and specialization exceeding that of undergraduate education, the work required of graduate students in any course in which instruction is combined with undergraduate students will reflect this difference.

## Anthropology (ANT)

### ANT 601. Free Trade, Fair Trade: Independent Entrepreneurs in the Global Market. (3 h)

Field-based seminar compares the barriers to market participation experienced by independent entrepreneurs cross-culturally. Free trade policies are contrasted with fair trade practices to determine why so many independent producers have trouble succeeding in a globalizing world.

### ANT 605. Museum Anthropology. (3 h)

Examines the historical, social, and ideological forces shaping the development of museums. Emphasizes the history of anthropology, the formation of anthropological collections, representation, and the intellectual and social challenges facing museums today.

### ANT 607. Collections Management Practicum. (1.5 h)

The principles of collections management including artifact registration, cataloging, storage, and handling; conservation issues and practices; disaster planning and preparedness; and ethical issues are covered through lectures, readings, workshops, and hands-on use of the Museum's collections.

### ANT 608. Archaeological Theory and Practice. (3 h)

Examination of a contemporary archaeological topic through participation in the formulation and implementation of an archaeological research design. Building knowledge relevant to contemporary society through understanding the interdependent nature of archaeological theory and method.

**ANT 615. Artifact Analysis and Laboratory Methods in Archeology. (3 h)**

Introduces methods for determining the composition, age, manufacture, and use of different prehistoric and historic artifact types. Techniques for reconstruction of past natural environments from geological or ecofact samples. Exploration of data display tools including computer-based illustration, and archeological photography.

**ANT 618. Prehistory and Archaeology of Europe. (3 h)**

Problem-based survey of the archaeological record of Europe. Complex interrelationships of material culture, economy, ideology, and social life from earliest peopling to the late Iron Age. Offered only in WFU Study Abroad programs.

**ANT 625. Roots of Racism: Race and Ethnic Diversity in the U.S. (3 h)**

Examines biological myths of race and race as a social construction; historical, economic, and political roots of inequalities; institutions and ideologies that buttress and challenge power relations; and implications of anthropological teaching and research for understanding social class and race discrimination in the U.S.

**ANT 627. Global Justice and Human Rights in Latin America. (3 h)**

Examines anthropological understandings of human rights, with emphasis on activism and rights-in-practice in Latin America. Explores how human rights are understood, mobilized, and reinterpreted in specific contexts. Investigates how anthropologists negotiate tensions between culture and rights, universalism and relativism, and advocacy and neutrality.

**ANT 629. Feminist Anthropology. (3 h)****ANT 632. Anthropology of Gender. (3 h)**

Focuses on the differences between sex, a biological category, and gender, its cultural counterpart. An anthropological perspective is used to understand both the human life cycle and the status of contemporary women and men worldwide. In section one, topics covered include evolution and biological development, sexuality and reproduction, parenting and life cycle changes. The second section includes a cross-cultural comparison examining roles, responsibilities and expectations, and how these interact with related issues of class and race in diverse locations, including Africa, South Dakota, China, India and the Amazon.

**ANT 633. Language and Gender. (3 h)**

Uses an anthropological perspective to examine relationships among language structure, language use, persons, and social categories.

**ANT 634. Peoples and Cultures of South Asia. (3 h)**

Survey of the peoples and cultures of the Indian subcontinent in the countries of Afghanistan, Bangladesh, Bhutan, India, Nepal, Pakistan and Sri Lanka. Reviews major topics of interest to anthropologists, including prehistory, history and politics, religion, social organization, caste, gender, development and population.

**ANT 635. Anthropology of Space and Place in the U.S. (3, 4 h)**

Examines the spatial dimensions of culture by focusing on housing disparities in the U.S. Particular attention is paid to the cultural, gendered, economic, political, and regional contexts of housing policies and the impact policies have on children, families and communities. Course includes an optional Service-Learning community asset mapping assignment of a local Winston-Salem neighborhood.

**ANT 636. Myth, Ritual, and Symbolism. (3 h)**

Explores how people envision and manipulate the supernatural in cross-cultural perspective. Emphasizes functional aspects of religious beliefs and practices.

**ANT 637. Economic Anthropology. (3 h)**

Examines the relationship between culture and the economy and its implications for applied anthropology. The variable nature and meaning of economic behavior will be examined in societies ranging from non-industrial to post-industrial. Discusses the impact of economic development programs, foreign aid and investment, technology transfer, and a variety of other economic aid programs.

**ANT 639. Culture and Nature: Introduction to Environmental Anthropology. (3 h)**

Exploration of humanity's "place" in the cosmo, focusing on different worldviews of nature and culture. Case studies from anthropology, archeology, and environmental science examine conceptions of technology, resources, environment, and ownership in the context of environmental change, "natural" disasters, and resource scarcity.

**ANT 640. Anthropological Theory. (3 h)**

Study and evaluation of the major anthropological theories of humans and society. The relevance and significance of these theories to modern anthropology are discussed.

**ANT 642. Development Wars: Applying Anthropology. (3 h)**

Explores the application of anthropological concepts and methods in the understanding of contemporary problems stemming from cultural diversity, including competing social and economic development models and ideologies of terror. Emphasis on conflict and change in developing areas but also considers the urban experience.

**ANT 647. Warfare and Violent Conflict. (3 h)**

Seminar focusing on the causes and nature of warfare and violent group interaction across cultures and through time. Compares case studies from around the globe and of varying sociopolitical organization, past and present. Includes explorations of primate behavior, forms of warfare, and competing theoretical explanations for its existence and for particular occurrences.

**ANT 650. Language, Indigeneity and Globalization. (3 h)**

Taking a global case-study approach, this seminar explores the role language plays in contemporary identity formation and expression, from indigenous to transnational contexts. Addresses relationships among language and colonialism, postcolonialism, nationalism, cultural revitalization, standardization, social and economic inequality, boundary-formation, and processes of cultural inclusion and exclusion.

**ANT 653. Language in Education. (3 h)**

This seminar explores the role of language in educational contexts; includes the study of bilingual and bicultural education, second language education, cross-cultural education, and communication in the classroom. Service-learning component.

**ANT 654. Field Methods in Linguistic Anthropology. (3 h)**

Trains students in basic skills of collecting and analyzing linguistic data at the levels of phonetics-phonology, grammar, lexico-semantics, discourse, and sociocultural context. Students will learn about the research questions that drive linguistic fieldwork as well as the relevant methods, tools, and practical and ethical concerns.

**ANT 655. Language and Culture. (3 h)**

Covers theoretical and methodological approaches to the study of language and culture, including: semiotics, structuralism, ethnoscience, the ethnography of communication, and sociolinguistics. Topics include: linguistic relativity; grammar and worldview; lexicon and thought; language use and social inequality; language and gender; and other areas.

**ANT 658. Native Peoples of North America. (3 h)**

Ethnology and prehistory of the indigenous peoples and cultures of North America since European contact. Explores historic and modern cultures, social and political relationships with Euro Americans, and social justice.

**ANT 660. Anthropology of Global Health. (3 h)**

A critical introduction to the interdisciplinary field of global health, focusing on contributions from medical anthropology. Compares a diversity of health experiences and evaluates interventions across the globe. Explores how biocultural, political, and economic forces shape patterns of illness and disease with special attention to improving the health of the world's most vulnerable citizens.

**ANT 661. Evolution of Human Behavior. (3 h)**

The application of Darwinian principles to the study of human nature and culture. Considers the existence, origin, and manifestation of human behavioral universals and the theoretical and practical implications of individual variability.

**ANT 662. Medical Anthropology. (3 h)**

Examines Western and non-Western conceptions of health, illness, the roles of patient and healer, and the organization of health in Western and non-Western cultures. Service learning.

**ANT 663. Primate Behavior & Biology. (3 h)**

Examines the evolution and adaptations of the order primates. Considers the different ways that ecology and evolution shape social behavior. A special emphasis on the lifeways of monkeys and apes.

**ANT 664. Primate Evolutionary Biology. (3 h)**

Examines the anatomy, evolution, and paleobiology of members of the order Primates. Emphasizes the fossil evidence for primate evolution. Major topics include: primate origins, prosimian and anthropoid adaptations, patterns in primate evolution, and the place of humans within the order Primates.

**ANT 666. Human Evolution. (3 h)**

The paleontological evidence for early human evolution, with an emphasis on the first five million years of bio-cultural evolution.

**ANT 667. Human Biological Diversity. (3 h)**

Seminar focusing on current issues in human biological diversity. Special emphasis on the nature of human variation, and the relationship between human biological diversity and human behavioral diversity. Students learn what is known about how modern human biological variation is patterned, and investigate how this variation is interpreted culturally.

**ANT 668. Human Osteology. (3 h)**

Survey and analysis of human skeletal anatomy, emphasizing archeological, anthropological, and forensic applications and practice.

**ANT 670. Old World Prehistory. (3 h)**

Survey of Old World prehistory, with particular attention to geological and climatological events affecting culture change.

**ANT 674. North American Archaeology. (3 h)**

The development of indigenous cultures in North America from the earliest arrival of people to European contact as outlined by archaeological research, with an emphasis on ecology and sociocultural processes.

**ANT 677. Ancestors, Indians, Immigrants: A Southwest Cultural Tapestry. (3 h)**

Exploration of factors that shaped the lives of people in the Southwest, with attention to Native American and Hispanic experience. From kivas to casinos, coyotes, to cartels, links archeological and prehispanic history to contemporary lifeways in the canyons, deserts, and cities of the U.S./ North Mexico.

**ANT 678. Conservation Archeology. (1.5 h)**

Study of the laws, regulations, policies, programs, and political processes used to conserve prehistoric and historic cultural resources.

**ANT 680. Anthropological Statistics. (3 h)**

Basic statistics. emphasizing application in anthropological research.

**ANT 681. Field Program in Anthropological Archaeology. (3 h)**

Integrated training in archaeological field methods and analytical techniques for researching human prehistory. Students learn archeological survey, mapping, excavation, recording techniques and artifact and ecofact recovery and analysis.

**ANT 682. Field Program in Anthropological Archaeology. (3 h)**

Integrated training in archaeological field methods and analytical techniques for researching human prehistory. Students learn archeological survey, mapping, excavation, recording techniques and artifact and ecofact recovery and analysis.

**ANT 683. Field Program in Cultural Anthropology. (3 h)**

Comparative study of culture and training in ethnographic and cultural analysis carried out in the field.

**ANT 684. Field Program in Cultural Anthropology. (3 h)**

Comparative study of culture and training in ethnographic and cultural analysis carried out in the field.

**ANT 685. Special Problems Seminar. (3 h)**

Intensive investigation of current scientific research within the discipline, concentrating on problems of contemporary interest.

**ANT 686. Special Problems Seminar. (3 h)**

Intensive investigation of current scientific research within the discipline, concentrating on problems of contemporary interest.

**ANT 687. Ethnographic Research Methods. (3 h)**

Designed to familiarize students with ethnographic research methods and their application. Considers the epistemological, ethical, political, and psychological aspects of research. Field experience and data analysis.

**ANT 698. Individual Study. (1-3 h)**

Reading or research course designed to meet the needs and interests of selected students, to be carried out under the supervision of a departmental faculty member. May be repeated for a maximum of 6 hours.

**ANT 785. Directed Research and Reading. (1-3 h)**

Research and reading course, including field component, designed to meet the needs of individual students and resulting in a professional-quality paper and/or presentation. May be repeated for a maximum of 6 hours. P-POI.

## Arabic (ARB)

**ARB 611. Elementary Arabic I. (3 h)**

The first semester of a two-semester course designed for student with no or very limited knowledge of the language. Introduction to Arabic sounds and script as well as basic grammar, with oral and written drills and reading of simple texts. Focus is laying the foundation for reading, writing, listening, and speaking skills in Modern Standard Arabic.

**ARB 612. Elementary Arabic II. (3 h)**

The second semester of a two-semester course designed for students with no or very limited knowledge of the language. Mastery of Arabic sound and script is assumed. Building of vocabulary and grammar through oral and written drills and reading of simple texts. Focus is on developing proficiency in reading, writing, listening, and speaking skills in Modern Standard Arabic. P-ARB 611.



**ARB 653. Intermediate Arabic I. (4 h)**

Review of grammar and focus on the acquisition of more complex grammatical structures, vocabulary building, and expansion of reading, writing, listening, and speaking skills in Modern Standard Arabic. P-ARB 612.

**ARB 701. Intermediate Arabic II. (3 h)**

Further building of vocabulary and grammar and expansion of reading, writing, listening, and speaking skills in Modern Standard Arabic. P-ARB 653.

**ARB 730. Upper Intermediate Arabic I. (3 h)**

With an emphasis on speaking and writing, this course will develop students' oral and written proficiency on an upper intermediate level of fluency. P-ARB 701.

**ARB 731. Upper Intermediate Arabic II. (3 h)**

A continuation of ARB 730. P-ARB 730.

## Art (ART)

**ART 600. Introduction to Filmmaking. (4 h)**

Introduces historical, aesthetic, and technical principles of contemporary filmmaking in a fine art context. Students will work in groups to produce an experimental film and work individually to create a video that focuses on a personal story. P-Some Video Art/Filmmaking experience required.

**ART 614. Filmmaking: Site Specific. (4 h)**

A historical, aesthetic, and technical exploration of contemporary filmmaking in a fine art context. Students will produce multi-channel video projects that interact with physical space. P-Video Art/Film-making experience required.

**ART 624. Filmmaking: Cyberspace. (4 h)**

A historical, aesthetic, and technical exploration of contemporary filmmaking in a fine art context. Students will produce multi-channel video projects that interact with cyberspace. P-Some Video Art/Filmmaking experience required.

**ART 628. Filmmaking: Theatre Works. (4 h)**

A historical, aesthetic, and technical exploration of contemporary filmmaking in a fine art context. Students will produce single-channel video projects for theatre viewing P-Some Video Art/Filmmaking experience required.

**ART 685. Global Contemporary Art. (3 h)**

A global perspective on contemporary artistic trends since 1990, including discussions about art criticism, exhibitions and the changing art world.

**ART 696. Art History Seminar. (3 h)**

Offered by members of the faculty or visiting faculty on topics of their choice. a. Ancient Art b. Medieval Art c. Renaissance Art d. Baroque Art k. Film e. Modern Art f. Contemporary Art g. American Art h. Modern Architecture i. American Architecture j. Global Art and Architecture l. Architecture and Urbanism m. Museums n. Special Topics.

**ART 696E. Art History Seminar: Modern Art. (3 h)****ART 696F. Art History Seminar: Contemporary Art. (3 h)****ART 697. Advanced Topics in Studio Art. (3 h)**

Focus on selected studio projects, critical readings, and discussions on topics selected by members of department faculty. May be repeated for a maximum of 6 hours. a. Drawing b. Painting c. Printmaking d. Sculpture e. Photography f. Digital Art g. Special Topics h. Video Art.

## Bioethics (BIE)

**BIE 619. Concepts of Health and Disease. (2-3 h)**

Concepts of health, disease and disability shape discussions in bioethics and health policy. This course examines and critically evaluates competing conceptions of health and disease. The implications of adopting different understandings of health and disease for bioethics and health policy will be explored.

**BIE 690. Special Topics. (1-3 h)**

Study of bioethics topics not covered in the regular curriculum. Topics may be drawn from any theory or content area in the field of bioethics. May be repeated for a maximum of 6 hours.

**BIE 701. Historical Foundations of Bioethics. (2, 3 h)**

This elective explores the origins of bioethics thought, through examination of core concepts in philosophy, moral theory, social and cultural studies and law and policy. Topics may include, for instance the ancient Greeks, Confucius, and key religious teaching on health, the civil rights movement; the history of scientific medicine; and the legal conceptualization of medical practice. This course expands and extends students' knowledge of the contemporary history of bioethics as incorporated into various aspects of their required courses.

**BIE 702. Biomedical Research Ethics. (3 h)**

A historical and conceptual survey of ethical, regulatory, and policy issues in biomedical research. Emphasis will be place on research involving human subjects. Master of Arts students are required to take any 2 of the following 3 courses: Clinical Ethics, Biomedical Research Ethics, and Public Policy, Medicine, and Justice.

**BIE 703. Bioethics Theory. (3 h)**

An investigation of the main theoretical approaches to contemporary bioethics and their philosophical foundations. Each approach will be examined critically and students will explore how each approach informs analysis of contemporary issues in bioethics.

**BIE 704. Public Policy, Medicine and Justice. (3 h)**

An examination of the organization of medicine and biomedical science in the U.S. today. The relationships between scientific and medical institutions and the implementation of public policies are critically analyzed in light of the requirements of the principle of justice. Topics include conflicts of interest, broadly understood, within and between institutional and professional actors; the regulation of medical practice; access to health care; and the balance between the public good and market forces. Master of Arts students are required to successfully complete two of the following courses: BIE 702, 704, or 705.

**BIE 705. Clinical Ethics. (3 h)**

This course will focus on "ethics at the bedside" and will make extensive use of case studies. The course will begin with sessions on the role of ethics in health care, the theoretical tools of bioethics, and the relationships among law, culture, and clinical ethics. The course will then review the moral foundations of therapeutic relationships, and it will conclude with examinations of moral issues encountered in health care at the beginning and at the end of life. Master of Arts students are required to take any 2 of the following 3 courses: Clinical Ethics, Biomedical Research Ethics, and Public Policy, Medicine and Justice.

**BIE 706. Bioethics Seminar. (1-3 h)**

A seminar on bioethics topics of interest featuring Wake Forest University and invited external faculty, with additional student presentations. Participants engage with presenters and scholarly literature on a variety of aspects of bioethics, including, but not limited to, the scholarly and professional practice of bioethics, the role of empirical scholarship in bioethics and related disciplines, the relationship of bioethics to advocacy and policy, and bioethics communication and mediation. May be repeated for credit up to a maximum of 6 hours.

**BIE 707. Bioethics Seminar. (1-3 h)**

A seminar on bioethics topics of interest featuring Wake Forest University and invited external faculty, with additional student presentations. Participants engage with presenters and scholarly literature on a variety of aspects of bioethics, including, but not limited to, the scholarly and professional practice of bioethics, the role of empirical scholarship in bioethics and related disciplines, the relationship of bioethics to advocacy and policy, and bioethics communication and mediation. May be repeated for credit up to a maximum of 6 hours.

**BIE 708. Research Methods. (2 h)**

An introduction to the methods, concepts and tools used in quantitative and qualitative empirical research in bioethics. Students will develop skills in the design, conduct, interpretation, and evaluation of bioethics research.

**BIE 709. Ethics of Health Communication. (3 h)**

This course explores: 1) how the phenomena of conscience, acknowledgement, and out metaphysical desire for perfection inform the status of communication ethics; 2) how communication ethics is a necessary concern for bioethics scholars, policymakers, researchers, and others interested in assessing the ongoing debate over the benefits and burdens of biotechnology; and 3) how biotechnology influences our collective understanding of human dignity.

**BIE 710. Global Bioethics. (2, 3 h)**

A comparison of American bioethics with the views of other societies and cultures, including western and non-western perspectives and developed and developing world perspectives. Topics may include: individualism vs. the community, reproductive freedom, organ transplantation, definitions and views of death, access to medical advances, and the use of human subjects in medical research. Other issues include health disparities, justice in research, and the role of humanitarian aid in promotion of global health.

**BIE 711. Current Topics in Clinical and Biomedical Research Ethics. (2, 3 h)**

An in-depth critical examination of selected topics of current interest in clinical and research ethics. Topics are identified by staff and students. Examples of pertinent topics include human pluripotent stem cell research; assisted-reproduction; research without consent; the sale of human organs; pandemic and biodefense preparedness; synthetic body parts and transhumanism; genetic enhancement; regenerative medicine and biogerontology. May be repeated for credit up to a maximum of 6 hours.

**BIE 713. Law, Medicine, and Ethics. (2, 3 h)**

An examination of the relationships between law and medicine, including the legal regulation of medical practice, concepts of medical malpractice, medical neglect, informed consent and legal competence, confidentiality and privacy, and definitions of death. The ethical implications of the intersection of law and medicine will be critically analyzed. This course is cross listed as LAW 524.

**BIE 715. Bioethics and Religion. (2, 3 h)**

This course explores fundamental themes, methods and issues in religious bioethics. It seeks to determine the ways that religious approaches offer distinctive, complementary or overlapping perspectives with secular approaches. Specific topics will include assisted reproductive technologies, family planning and abortion, genetic therapy and enhancement, withholding life-sustaining treatment, suicide and euthanasia and justice issues in the allocation of health care resources. The course will combine lectures and discussions with analysis of cases.

**BIE 717. Ethics, Economics, and Health Policy. (3 h)**

The course examines ethical and justice aspects of social decision-making and market allocation mechanisms in the context of health care, health policy, and population health.

**BIE 721. Research Independent Study. (1-3 h)**

Students may work with a faculty member on a project of mutual interest. May be repeated for credit up to a maximum of 6 hours.

**BIE 722. Research Independent Study. (1-3 h)**

Students may work with a faculty member on a project of mutual interest. May be repeated for credit up to a maximum of 6 hours.

**BIE 723. Bioethics at the Movies. (2 h)**

A critical examination of the bioethical issues raised in selected full length feature films. The goal of this course is to increase students' ability to think critically about complex issues, paying close attention to relevant details.

**BIE 725. Health Care Law & Policy. (2, 3 h)**

This course examines the public policy and legal dimensions of the financing and regulation of health care delivery. Its focus is on how medical institutions (hospitals, insurers, HMOs) are structured and regulated, and how these institutions relate to their physicians and patients. Ongoing debate over health care reform is a main focus. The dominant theme is how law shapes and responds to the rapid economic and structural changes that are taking place in the health care sector. This course is cross-listed as Law 525.

**BIE 727. Perform Case Studies Bioethics. (2-3 h)**

Students will develop a bioethics case study and present it as a dramatic reading with audience discussion at semester's end. From an initial prompt (e.g. subject matter, situation, incident) and associated readings, the work will be implemented in three phases of approximately equal length: 1) discussion and analysis of the prompt and readings; 2) student presentations of additional research, either individually or in teams, and concomitant discussion and analysis, from ethical, social, legal and policy perspectives; and 3) script (case) development during in-class writing sessions. The overarching goal is to exploit the unique ability of dramatic art to engage complex, multifaceted issues in ways that are neither nebulous nor propagandistic, and to highlight the relationship between process, close analysis, art and scholarship in bioethics.

**BIE 729. Bioethics as a Profession. (2 h)**

A critical examination of the scholarly literature both in and about bioethics. Topics may include the ethics of the profession of bioethics, controversies concerning the role of bioethics professionals, and the standards and evaluation of practitioners of bioethics.

**BIE 731. Bioethics at Work: The IRB. (1-3 h)**

Provides students with the opportunity to experience and understand human research oversight by attending Institutional Review Board (IRB) meetings, reviewing submitted protocols, and considering the ethical issues arising therein. Students assigned to a single IRB for a single semester will receive 1 credit. They will attend monthly meetings, meet periodically with course faculty and staff, and meet with IRB senior staff at the beginning and end of the semester. Students are also required to maintain and submit a journal of commentary on meetings and protocols and the ethical issues arising therein and an end of semester paper. Initial enrollment must be concurrent with enrollment in BIE 702: Biomedical Research Ethics or Law 677/BIE 777: Health Related Research. Additional credits may be earned by students who attend the meetings of more than one IRB or who continue attendance during the summer terms and/or in the fall semester. Course may be repeated up to a maximum of 3 hours. Co-requisite - BIE 702 or Law 677/BIE 777 or POI.

**BIE 733. Bioethics at Work: The Clinical Context. (1-3 h)**

This course is designed to introduce students to central clinical ethics activities in health care facilities, including ethics consultation, ethics policy development and review, and continuing education in bioethics. In addition to weekly seminar classes, students will attend meetings of the Wake Forest Baptist Medical Center Clinical Ethics Committee and its standing subcommittees and continuing education conferences in bioethics. Students will meet with a variety of health care professionals to learn about their contributions to clinical ethics, will observe the process of clinical ethics consultation at WFBMC, and will study and practice ethics consultation skills. P-BIE 705.

**BIE 737. Genetics and Bioethics. (3 h)**

An exploration of some of the ethical issues generated by the acquisition and application of knowledge about the human genome. Topics include eugenics, confidentiality, gene therapy, genetic testing of minors, genetic testing of adults, and ownership of genetic information.

**BIE 739. Neuroethics. (3 h)**

This course introduces students to basic philosophical and ethical issues in neuroethics. In this course we explore two branches of neuroethics: the ethics of neuroscience and the neuroscience of ethics. The ethics of neuroscience investigates the ethical implications of the application of neurotechnology for individuals and society, and the neuroscience of ethics attempts to answer traditional ethical questions through neuroscience. In the first half of the course, we study issues related to the ethics of neuroscience such as brain privacy (mind reading), brain manipulation, and cognitive enhancement, and in the second half we review contemporary neuroscientific results bearing on ethical issues like personal identity, free will, and the nature of normative judgments. This course is cross-listed as THS 790.

**BIE 741. Narrative and Bioethics. (3 h)**

This team-taught course provides bioethics students with an overview of the different ways in which narratives of diverse types are instrumental to bioethics thinking. Four to six faculty will teach individual course units of 2-3 sessions, addressing topics including but not limited to: illness narratives; bioethics in fiction and film; performable case studies addressing bioethics issues; the voice of the medical case presentation; narrative reading and narrative writing; bioethics in the news; and the ethics of "thick description." Involvement of multiple faculty enables critical reflection on narrative from a variety of disciplinary perspectives common to bioethics.

**BIE 757. Biotechnology Law & Policy. (2, 3 h)**

This course surveys a range of legal and public policy topics in biotechnology, such as: FDA regulation of drugs and devices, regulation of medical research, products liability, insurance coverage of pharmaceuticals, intellectual property, and genetics. This course is cross-listed with the School of Law (LAW 657).

**BIE 777. Health Related Research: Law, Regulation and Policy. (2 h)**

The course explores the regulatory framework and the policy issues that animate health-related research. Topics include public health and quality improvement research, genetic research, health-related behavioral and social science research, first-in-human trials, and international considerations. This course is cross-listed as LAW 677.

**BIE 790. Biotechnology and Ethics. (3 h)**

With the convergence of medicine, nanotechnology, computer science, molecular biology, genetic engineering, and business, biotechnologies are emerging not only as an important provider of life-saving and life-enhancing treatments but also a fast-growing and very profitable industry. This course explores some of the major ethical issues related to the current and proposed uses of biotechnologies with particular attention to the reasons and arguments that are often used to support various views on the use of biotechnology.

**BIE 791. Thesis Research. (1-6 h)**

Research directed toward fulfilling the thesis requirement. May be repeated for up to a total of 6 credits. P-POI.

**BIE 792. Thesis Research. (1-6 h)**

Research directed toward fulfilling the thesis requirement. May be repeated for up to a total of 6 credits. P-POI.

**BIE 794. Bioethics and Law. (2, 3 h)**

This course involves applying principles of bioethics in scientific and medical scenarios from the perspective of the legal system to see how the bioethics principles affect decision-making and strategy in the litigation and legislative processes. This course is interactive in nature, and involves the use of simulation and role-playing to help understand and address emerging bioethics issues in areas including informed consent, genetic testing, biomedical experimentation, and end of life decisions. This course is cross-listed as LAW 594.

## Biology (BIO)

**BIO 601. Topics in Biology. (1-4 h)**

Seminar and/or lecture courses in selected topics, some involving laboratory instruction. May be repeated for credit.

**BIO 602. Topics in Biology. (1-4 h)**

Seminar and/or lecture courses in selected topics, some involving laboratory instruction. May be repeated for credit.

**BIO 603. Topics in Biology. (1-4 h)**

Seminar and/or lecture courses in selected topics, some involving laboratory instruction. May be repeated for credit.

**BIO 604. Topics in Biology. (1-4 h)**

Seminar and/or lecture courses in selected topics, some involving laboratory instruction. May be repeated for credit.

**BIO 605. Topics in Biology. (1-4 h)**

Seminar and/or lecture courses in selected topics, some involving laboratory instruction. May be repeated for credit.

**BIO 607. Biophysics. (3 h)**

Introduction to the structure, dynamic behavior, and function of DNA and proteins, and survey of membrane biophysics. The physical principles of structure determination by X-ray, NMR, and optical methods are emphasized. Kim-Shapiro.

**BIO 608. Biomechanics. (3 h)**

Analyzes the relationship between organismal form and function using principles from physics and engineering. Solid and fluid mechanics are employed to study design in living systems.

**BIO 608L. Biomechanics Lab. (1 h)**

Laboratory study of biomechanics. P or C-BIO 608.

**BIO 609. Comparative Anatomy. (4 h)**

Study of the vertebrate body from an evolutionary, functional, and development perspective. Labs emphasize structure and function, primarily through the dissection of representative vertebrates.

**BIO 610. Community Ecology and Global Change. (4 h)**

An advanced ecology course covering mechanisms that determine the dynamics and distribution of plant and animal assemblages and their responses to and roles in global change. Lectures focus on ecological principles and theory. Lab includes local field trips and discussion of the primary literature. Weekend field trips to Outer Banks and mountains.

**BIO 611. Ecology & Conservation Biology of Coral Reefs. (4 h)**

In-depth study of the various biotic and abiotic components that come together to structure ecosystem function and biodiversity at all spatial scales in one of Earth's most productive and diverse environments, yet one most threatened by human use and climate change. Lab component is a one-week field trip over Spring Break.

**BIO 613. Herpetology. (4 h)**

Lecture course on the biology of reptiles and amphibians, emphasizing the unique morphological, physiological, and behavioral adaptations of both groups, and their evolutionary histories and relationships. Two local field trips are planned.

**BIO 615. Population Genetics. (3 h)**

Study of the amount and distribution of genetic variation in populations of organisms, and of how processes such as mutation, recombination, and selection affect genetic variation. Lectures present both an introduction to theoretical studies and discussion of molecular and phenotypic variation in natural populations.

**BIO 615L. Population Genetics Lab. (1 h)**

Uses computer modeling and simulation, and experiments using populations of fruit flies and other model organisms as appropriate. P or C-BIO 615.

**BIO 616. Biology of Birds. (4 h)**

Lecture plus lab course emphasizing ecological and evolutionary influences on the physiology, behavior, diversity, and population biology of birds, and case studies in conservation biology.

**BIO 617. Plant Physiology & Development. (3 h)**

Examines the growth, development, and physiological processes of plants. The control of these processes is examined on genetic, biochemical, and whole plant levels.

**BIO 617L. Plant Physiology and Development Lab. (1 h)**

Consists of structured experiments and an independently designed research project. P or C-BIO 617.

**BIO 623. Animal Behavior. (3 h)**

Survey of laboratory and field research on animal behavior.

**BIO 623L. Animal Behavior Lab. (1 h)**

Laboratory study of animal behavior. P or C-BIO 623L.

**BIO 624. Hormones and Behavior. (3 h)**

Introduction to the hormonal regulation of behavior in a broad range of animals, including humans and invertebrates. Topics include reproductive behavior, parental behavior, social behavior, sex differences, aggressive behavior, stress, mood, and the regulations of molting in insects. Fahrbach.

**BIO 627. Mycology: Biology of Fungi. (4 h)**

Introduces fungi, their evolution and natural taxonomy; cell and molecular biology; genetics, mating and development; primary and secondary biochemistry; and their interactions with other organisms and the environment. Lab introduces culturing, microscopic and molecular techniques.

**BIO 628. Biology of Aging. (3 h)**

Explores mechanisms of aging, and effects of aging on cellular and physiological processes in a range of organisms.

**BIO 629. Conservation Biology. (3 h)**

Lectures, readings, and discussions examining biological resources, their limitations and methods for sustainability. Genetic, aquatic, terrestrial, and ecosystem resources will be examined.

**BIO 630. Land and Natural-Resources Management. (3 h)**

Provides a fundamental understanding of land and resource management. The major focus is on federal oversight and policies but state, local, non-profit, and international aspects are included.

**BIO 632. Microbiology. (4 h)**

Structure, function, and taxonomy of microorganisms with emphasis on bacteria. Topics include microbial ecology, industrial microbiology, and medical microbiology. Lab emphasizes microbial diversity through characterizations of isolates from nature.

**BIO 633. Vertebrates. (4 h)**

Systematic study of vertebrates, with emphasis on evolution, physiology, behavior, and ecology. Laboratory devoted to systematic, field, and experimental studies. Weigl.

**BIO 634. Parasitology. (4 h)**

Survey of protozoan, helminth, and arthropod parasites with a focus on cellular biology, life cycles, host-parasite relationships, and public health implications. Laboratory emphasizes microscopy-based techniques for examining parasite morphology and intracellular structures.

**BIO 635. Insect Biology. (4 h)**

Study of the diversity, structure, development, physiology, behavior, and ecology of insects. Conner.

**BIO 635S. Insect Biology. (4 h)**

A five-week course taught during the summer. A study of the diversity, structure, development, physiology, behavior, and ecology of one of the most diverse taxa on earth. Course location and field trip destinations to be announced each summer. P-POI. Conner.

**BIO 636. Development. (3 h)**

A study of the molecular, cellular, and anatomical aspects of embryonic development of invertebrate and vertebrate organisms.

**BIO 636L. Development Lab. (1 h)**

Laboratory study of the molecular, cellular, and anatomical aspects of embryonic development of invertebrate and vertebrate animals. P or C-BIO 636.

**BIO 638. Plant Diversity. (3 h)**

Explores the diversification of plants in the context of convergent evolution, functional processes and ecological importance.

**BIO 638L. Plant Diversity Lab. (1 h)**

Plant diversity lab. P or C-BIO 638.



**BIO 639. Principles of Biosystematics. (4 h)**

Exploration of the current theoretical and practical approaches to the study of macroevolution in plants and animals. Topics include theory and methods on constructing evolutionary trees, sources of data, and cladistic biogeography. Kron.

**BIO 640. Ecology. (4 h)**

Interrelationships among living systems and their environments, structure and dynamics of major ecosystem types, contemporary problems in ecology. Weigl.

**BIO 641. Marine Biology. (3 h)**

Introduction to the physical, chemical, and biological parameters affecting the distribution of marine organisms.

**BIO 641L. Marine Biology Lab. (1 h)**

Marine biology lab. P or C-BIO 641.

**BIO 642. Oceanography. (4 h)**

Introduces the geological, physical, chemical, and biological processes that govern the global oceans and their role in climate change. Lab focus is on tools and research questions pertinent to the field of biological oceanography.

**BIO 646. Neurobiology. (3 h)**

Introduces the structure and function of the nervous system including the neural basis of behavior.

**BIO 646L. Neurobiology Lab. (1 h)**

Laboratory emphasizing electrophysiological techniques with experiments from the cellular to the behavioral level. Students will design and complete their own projects. P or C-BIO 646.

**BIO 648. Physiological Plant Ecology. (3 h)**

Provides a fundamental understanding of how plants have adapted to the stresses of their habits, particularly in harsh or extreme environments such as deserts, the alpine, the arctic tundra, and tropical rain forests.

**BIO 648L. Physiological Plant Ecology Lab. (1 h)**

Physiological plant ecology lab. P or C-BIO 648.

**BIO 649. Tropical Biodiversity of the Amazon and Andes. (4 h)**

Intensive field course in tropical biodiversity focusing on ecosystems, natural resource management, and conservation. Students will travel to major tropical biomes in the vast tropical wildernesses of Andean and Amazonian Peru. Lectures emphasize the basic ecological principles important in each ecosystem. Field-based labs focus on student-designed projects. Offered in the summer only. POI required.

**BIO 652. Developmental Neuroscience. (4 h)**

Focuses on the development of neural structures and the plasticity of the mature nervous system. Special attention is given to experimental model systems, particularly *Drosophila melanogaster*. The labs feature molecular, immunocytochemical, and cell culture techniques for the study of neurons. Fahrback.

**BIO 653. Functional Neuroanatomy. (3 h)**

An introduction to the gross and cellular anatomical organization of the vertebrate central nervous system. Attention is given to relating structure to function, the anatomical basis of neuropathologies, and modern approaches in neuroanatomy and imaging.

**BIO 656. Ecology and Resource Management of Southeast Australia. (4 h)**

Intensive field-oriented course focusing on ecosystems, natural resource management and environmental conservation of southeastern Australia. Students travel to major biomes including sub-tropical rainforests, coral reefs, and the Australian urban environment. Labs are field-based with some consisting of study-designed field projects. Taught only in summers in Australia.

**BIO 657. Bioinspiration and Biomimetics. (3 h)**

Explores the way in which biological mechanisms can inspire new technologies, products, and businesses. The course combines basic biological and entrepreneurial principles. Also listed as ESE 657.

**BIO 658. Biogeography. (3 h)**

Study of geographic variation and distribution of organismal diversity using theoretical, historical and ecological information with specific applications to conservation and sustainability.

**BIO 658L. Biogeography Lab. (1 h)**

Introduces methods of analysis related to the study of biogeography. P or C-BIO 658.

**BIO 660. Metabolic Diseases. (3 h)**

Explores genetic and biochemical pathways in the context of inborn errors of metabolism.

**BIO 662. Immunology. (3 h)**

Study of the components and protective mechanisms of the immune system. Kuhn.

**BIO 663. Sensory Biology. (3 h)**

Lecture course that examines a variety of sensory systems. Emphasis is on sensory physiology, although other aspects of sensory systems, e.g. molecular biology and anatomy, are also covered. Silver.

**BIO 663L. Sensory Biology Lab. (1 h)**

Laboratory emphasizing electrophysiological and behavioral techniques to examine sensory systems. Students will design and complete their own projects. P or C-BIO 663.

**BIO 665. Biology of the Cell. (3 h)**

Lecture and lab course on recent advances in cell biology. Lectures emphasize analysis and interpretation of experimental data in the primary literature, focusing on topics such as the large scale architecture of the cell, targeting of macromolecules, cell-cell communication, cell signaling, and the control of cell division. The labs introduce basic techniques in cell biology and leads to an independent project. Tague.

**BIO 665L. Biology of the Cell Lab. (1 h)**

Laboratory course introducing basic techniques in cell biology, leading to an independent project. P or C-BIO 665.

**BIO 667. Virology. (3 h)**

Designed to introduce students to viruses, viral/host interactions, pathogenicity, methods of control and their use in molecular biology, including gene therapy. Curran, Lord.

**BIO 668. The Cell Biological Basis of Disease. (3 h)**

Examines defects in basic cellular mechanisms that may lead to disease.

**BIO 668L. The Cell Biological Basis of Disease Lab. (1 h)**

Lab uses advanced microscopic and histological techniques to investigate basic properties of cells. P or C-BIO 668.

**BIO 669. Cancer Biology. (3 h)**

Analysis of molecular and cellular mechanisms that transform normal cells, trigger abnormal proliferation, and lead to tumor formation. Emphasis is on the biological basis of cancer, with some exploration of clinical and social consequences.



**BIO 670. Biochemistry: Macromolecules and Metabolism. (3 h)**

Lecture course introducing the principles of biochemistry, with an emphasis on the experimental approaches that elucidated these principles. Major topics include structure, function, and biosynthesis of biological molecules, analysis of enzyme function and activity, bioenergetics, and regulation of metabolic pathways. Muday.

**BIO 670L. Biochemistry Lab. (1 h)**

Overview of biochemical approaches to study structure and function of macromolecules. Cannot receive credit for both BIO 670L and 671L. P or C-BIO 670.

**BIO 671L. Advanced Biochemistry Lab. (1 h)**

Emphasizes approaches for isolation and analysis of enzymes. Cannot receive credit for both BIO 670L and 671L. P or C-BIO 671.

**BIO 672. Advanced Molecular Biology. (3 h)**

Presents molecular mechanisms by which stored genetic information is expressed including the mechanisms for and regulation of gene expression, protein synthesis, and genome editing. Emphasizes analysis and interpretation of experimental data from the primary literature.

**BIO 672L. Advanced Molecular Biology Lab. (1 h)**

Introduces modern methods of molecular biology to analyze and manipulate expression of genes and function of gene products. P or C-BIO 672.

**BIO 674. Neuropharmacology. (3 h)**

An introduction to how pharmacological agents affect cellular and molecular functions in the nervous system of normal and disease states. Lecture and case studies will be used to examine topics including drugs targeting mood and emotion, memory and dementia, and movement disorders. Drugs of abuse and the neurological basis of addiction will also be evaluated.

**BIO 679. Introduction to Geographic Information Systems (GIS). (4 h)**

Lecture and laboratory course that introduces the concepts and uses of GIS as a mapping and analytical tool. Lectures cover the history of GIS, GIS data structures and sources of data, map projections, GIS tools, applications, and resources. Exercises include example of GIS applications in environmental modeling, socio-demographic change and site suitability analyses.

**BIO 680. Biostatistics. (3 h)**

Introduction to statistical methods used by biologists, including descriptive statistics, hypothesis testing, analysis of variance, and regression and correlation. R. Browne.

**BIO 681. Epigenetics. (3 h)**

Studies the molecular mechanisms for inheritance of genome modifications. Uses primary literature to explore the environmental and developmental signals that influence epigenetic controls of gene expression and disease.

**BIO 681L. Epigenetics Lab. (1 h)**

Provides hands-on experiences with genome editing and molecular genetics to address the function and expression of genes. P or C-BIO 681.

**BIO 682. Molecular Signaling. (3 h)**

Examines the molecular and biochemical mechanisms by which hormones, neurotransmitters, and other signaling molecules act to change growth, development, and physiological and behavioral responses of organisms with a focus on discussion of primary literature.

**BIO 683. Genomics. (3 h)**

Examines the architecture, expression, and evolution of genomes. Uses current primary literature to examine the functional and evolutionary dynamics of genomes and the modern analytic techniques used to investigate genome-wide phenomena.

**BIO 683L. Genomics Lab. (1 h)**

Introduces analytic methods and interpretation of genome wide data through practical tutorials. P or C-BIO 683.

**BIO 684. Molecular Evolution. (3 h)**

Study of the evolutionary analysis of biological sequences in population genetic and phylogenetic contexts. Explores statistical and bioinformatic techniques for investigating population evolution, molecular adaptations, and reconstruction of evolutionary history through primary literature.

**BIO 684L. Molecular Evolution Lab. (1 h)**

Introduces evolutionary analytic methods and interpretation of molecular data through practical tutorials. P or C-BIO 684.

**BIO 685. Bioinformatics. (3 h)**

Introduction to computational approaches essential to modern biological inquiry. Approaches may include large biological dataset analyses, sequence similarity and motif searches, and analysis of high-throughput genomic technologies. Emphasizes interdisciplinary interaction and communication. Also listed as CSC 685 and PHY 685.

**BIO 687. Computational Systems Biology. (3 h)**

Introduction of concepts and development of skills for comprehension of systems biology problems, including both biological and computational aspects. Topics may include genome-wide transcriptomic analysis, protein interaction networks, large-scale proteomics experiments, and computational approaches for modeling, storing, and analyzing the resulting data sets. Emphasizes interdisciplinary interaction and communication.

**BIO 688. Methods in Molecular Genetics. (4 h)**

Hybrid lecture/laboratory course gives students a hands-on introduction to a diverse array of techniques commonly used in molecular genetics laboratories.

**BIO 701. Topics in Biology. (1-4 h)**

Seminar courses in selected topics, some involving laboratory instruction. At least one offered each semester. Staff.

**BIO 702. Topics in Biology. (1-4 h)**

Seminar courses in selected topics, some involving laboratory instruction. At least one offered each semester. Staff.

**BIO 703. Topics in Biology. (1-4 h)**

Seminar courses in selected topics, some involving laboratory instruction. At least one offered each semester. Staff.

**BIO 704. Topics in Biology. (1-4 h)**

Seminar courses in selected topics, some involving laboratory instruction. At least one offered each semester. Staff.

**BIO 705. Topics in Biology. (1-4 h)**

Seminar courses in selected topics, some involving laboratory instruction. At least one offered each semester. Staff.

**BIO 706. Topics in Biology. (1-4 h)**

Seminar courses in selected topics, some involving laboratory instruction. At least one offered each semester. Staff.

**BIO 707. Topics in Biology. (1-4 h)**

Seminar courses in selected topics, some involving laboratory instruction. At least one offered each semester. Staff.

**BIO 708. Topics in Biology. (1-4 h)**

Seminar courses in selected topics, some involving laboratory instruction. At least one offered each semester. Staff.

**BIO 711. Directed Study in Biology. (1 h)**

Reading and/or laboratory problems carried out under and by permission of a faculty member. Staff.

**BIO 712. Directed Study in Biology. (1 h)**

Reading and/or laboratory problems carried out under and by permission of a faculty member. Staff.

**BIO 715. Foundations of Physiology. (1-4 h)**

Covers classical and current topics and techniques in comparative physiology. Format varies from seminar to a full laboratory course. Staff.

**BIO 716. Signal Transduction. (2 h)**

Focuses on the mechanisms of inter- and intra-cellular communications. Topics range from receptors to signaling molecules to physiological responses. Largely based on the primary literature and requires student presentation of primary research articles. C. Browne, Muday, Tague.

**BIO 717. Developmental Mechanism. (2 h)**

Seminar course examining the molecular, biochemical, and cellular mechanisms of animal and/or plant development. Relevant topics selected from the current literature are discussed in lecture and presentation formats. C. Browne, Tague, Muday.

**BIO 718. Gene Expression. (2 h)**

Seminar covers gene expression in eukaryotic and prokaryotic systems. Topics range from transcription to translation to other aspects of gene regulation. Emphasis is on the experimental basis of understanding the mechanisms of gene expression. Students present, in seminar format, appropriate papers from literature. All students participate in discussion and evaluation of presentations. Tague, C. Browne, Curran, Muday.

**BIO 725. Plant Genetics. (1, 2 h)**

Covers various aspects of plant genetics in a seminar format. Topics range from classical Mendelian genetics to genomics and bioinformatics, depending on the interests of the students. Students present the results, conclusions, and significance of appropriate papers from the literature. All students participate in discussion and evaluation of presentation. Muday, Tague.

**BIO 726. Plant Physiology. (1, 2 h)**

Covers various aspects of plant physiology and hormones in a seminar format. Topics range from auxin transport to properties of light within the leaf. Students present the results, conclusions, and significance of appropriate papers from the literature. All students participate in discussion and evaluation of presentations. Muday, Smith.

**BIO 727. Plant Evolution. (1, 2 h)**

Covers various aspects of plant evolution in a seminar format. Topics range from problems in phylogeny reconstruction and patterns of diversity to major evolutionary innovations in various plant groups. Students present the results, conclusions, and significance of appropriate papers from the literature. All students participate in discussion and evaluation of presentations. Kron, Silman.

**BIO 728. Plant Ecology. (1, 2 h)**

Covers various aspects of plant ecology in a seminar format. Topics vary depending on graduate student interest. Students present the results, conclusions, and significance of appropriate papers from the literature. All students participate in discussion and evaluation of presentations. Silman, Smith.

**BIO 735. Foundations of Evolutionary Genetics. (2 h)**

Inquiry into the fundamental concepts in genetic evolution through discussion of foundational primary literature. Topics explored include population genetic processes, speciation and extinction.

**BIO 740. Physiological Ecology. (4 h)**

Introduction to evolutionary/ecological physiology, with emphasis on the interactions between organisms and major abiotic factors of the environment including water balance-hydration, gaseous exchange-respiration, temperature tolerance-thermal physiology. Dimock.

**BIO 757. Techniques in Mathematical Biology. (3 h)**

Offers students a framework for understanding the use of mathematics in both biological theory and empirical research. Emphasis is on practical applications of mathematical techniques, and learning by doing. A central goal is to give students tools to use in their own research. Topics covered include continuous and discrete population models, matrix models, stochastic models, life-history theory, and fitting models for data. Mathematical skills are taught and refreshed, but knowledge of basic calculus is required. Silman, Anderson, Baxley.

**BIO 762. Immunology. (4 h)**

Humoral and cellular immune responses are examined to understand the basic immunobiology of vertebrates with special emphasis on cell-cell interactions and immunoregulation. Labs introduce students to basic methods in immunological research. Kuhn.

**BIO 763. Cellular and Molecular Interactions Between Hosts and Parasites. (3 h)**

Examines the responses of animal hosts in attempting to immunologically and non-immunologically reject/control both endo- and ecto-parasites and responses of these parasites to the host environment. Consists of lectures and student presentations and requires a comprehensive review article by students. Kuhn.

**BIO 767. Foundations of Ecology. (3 h)**

A graduate seminar focusing on understanding the seminal developments in the field of ecology and then tracing their intellectual impacts on the modern literature.

**BIO 775. Microscopy for the Biological Sciences. (4 h)**

An introduction to the various types of light, confocal, and electron microscopy. Students will learn technical and theoretical aspects of microscopy, methods of sample preparation, digital image acquisition and analysis and the preparation of publication quality images. The course will emphasize practical applications of microscopy, microscopy experimental design, and hands-on use of microscopes and digital imaging systems. Students will be expected to design and conduct a microscopy project and present their results to the class. Additionally, students will be expected to participate in class discussions regarding newly emerging microscopy techniques in various biological disciplines.

**BIO 777. Biophysical Ecology. (4 h)**

Designed to introduce students to the interactions of the organism with the physical environment. Sunlight, temperature, water availability and humidity, wind and longwave radiation (greenhouse effect) strongly influence an organism's growth and reproductive potential. Differences in heat and mass transfer to and from the organism, plus corresponding organism responses in structure, physiology, and behavior to changes in the local environment, are addressed. These same principles are also important to the design of energy-efficient homes (passive solar), clothing design (Gortex), outdoor survival and gardening, to name only a few of humankind's everyday activities. Smith.

**BIO 778. Advanced Ecology. (4 h)**

Covers current research in the field of ecology with a focus at the community level. Experimental design, data analysis, and interpretation are emphasized. Silman.

**BIO 779. Molecular Techniques in Evolution and Systematics. (4 h)**

Lecture and lab course that explores molecular methods that are basic to many disciplines within biology, especially ecology, evolution, and systematics. Labs focus on the acquisition of molecular techniques, including allozyme electrophoresis, mitochondrial plastid, and nuclear DNA restriction fragment length polymorphism analysis, gene amplification, PCR (polymerase chain reaction), direct and/or cycle sequencing, and RAPDS (randomly amplified polymorphic DNAs). Kron.

**BIO 780. Advanced Systematics. (3 h)**

A primary literature-based course that covers various subdisciplines within systematics including cladistic biogeography, history and theory of systematics, analytical techniques and database management of systematic data.

**BIO 781. Statistical Models and Data in R. (4 h)**

Provides an introduction to statistical modeling and data management in the R computer language. The course objectives are to introduce student to: (i) methodologies for the design and analysis of ecological and organismal experiments, (ii) programming with an emphasis on good coding and data management habits, and (iii) producing figures and reproducible workflows for publication.

**BIO 783. Teaching Skills & Instructional Development. (3 h)**

Introduction to teaching college-level science courses. Emphasis is on: defining and achieving realistic course goals; mechanics of selecting, developing and refining topics for lecture or laboratory; effective presentation strategies; and creating an active learning environment. Students develop a teaching portfolio containing course syllabi, lecture outlines, and student-ready laboratory materials. Format combines didactic lectures, individual projects, and group discussions and critiques. Course meets for two, 2-hour periods each week. D. Johnson.

**BIO 785. Teacher-Scholar Professional Development I. (1 h)**

Training in professional skills for early-career biological scientists through interactive discussion and exercises. Topics include scientific ethics and professional practices, scientific publishing, and scientific communication.

**BIO 786. Teacher-Scholar Professional Development II. (1 h)**

Training in professional skills for early-career biological scientists through interactive discussion and exercises. Topics include grant preparation and submission, professional bias and discrimination in the sciences, career paths, and job interviewing.

**BIO 789. Research Seminar. (1 h)**

Introduction to scientific presentation skills through active participation in scientific seminars and symposiums, discussion, and exercises. May be repeated for credit.

**BIO 791. Thesis Research I. (1-9 h)**

Staff.

**BIO 792. Thesis Research II. (1-9 h)**

Staff.

**BIO 891. Dissertation Research I. (1-9 h)**

Staff.

**BIO 892. Dissertation Research II. (1-9 h)**

Staff.

## Chemistry (CHM)

**CHM 621. Intermediate Organic Chemistry. (3 h)**

Survey of advanced topics in organic chemistry including stereochemistry, conformational analysis, reaction mechanisms, organometallic chemistry and asymmetric synthesis.

**CHM 623. Organic Analysis. (4 h)**

The systematic identification of organic compounds.

**CHM 624. Medicinal Chemistry. (3 h)**

This course is an introduction to drug targets, mechanism, design, and synthesis. Topics of study include the review of biomolecular structure and function; druggable/targetable enzymes and signaling networks; the replisome- and transcriptome as targets; molecular and cellular pharmacology, molecular mechanism of action at the target level; drug metabolism and pharmacokinetics/pharmacodynamics. A significant portion of the course will be devoted to drug discovery, which includes design, SAR, optimization, synthetic methodologies, computer-assisted drug design; QSAR; prodrugs and "bench-to-bedside", approaches.

**CHM 625. Organic Synthesis. (4 h)**

Reagents for and design of synthetic routes to organic molecules.

**CHM 626. Organic Synthesis. (4 h)**

Reagents for and design of synthetic routes to organic molecules.

**CHM 634. Chemical Analysis. (3, 4 h)**

Theoretical and practical applications of modern methods of chemical analysis. C-CHM 641.

**CHM 641. Physical Chemistry. (3, 4 h)**

Fundamentals of physical chemistry.

**CHM 642. Physical Chemistry. (3, 4 h)**

Fundamentals of physical chemistry.

**CHM 644. Physical Chemistry. (3, 4 h)**

Fundamentals of physical chemistry.

**CHM 648. Electronic Structure Theory and Computational Chemistry. (3 h)**

Introduction to quantum mechanical foundation of electronic structure theory and its application to problems in computational chemistry.

**CHM 651. Special Topics in Biochemistry. (3 h)**

Fundamentals of biochemistry, with particular emphasis on mechanistic analysis of metabolic pathways, enzymatic activity, and drug action.

**CHM 656. Chemical Spectroscopy. (1.5 h)**

Fundamental aspects of the theory and application of chemical spectroscopy, as found in the areas of analytical, inorganic, organic, and physical chemistry. Emphasis varies. Seven week courses. P-CHM 642 or 644, 661 or POI. May be repeated for credit.

**CHM 657. Chemical Spectroscopy. (1.5 h)**

Fundamental aspects of the theory and application of chemical spectroscopy, as found in the areas of analytical, inorganic, organic, and physical chemistry. Emphasis varies. Seven week courses. P-CHM 642 or 644, 661 or POI. May be repeated for credit.

**CHM 661. Inorganic Chemistry. (3, 4 h)**

Principles and reactions of inorganic chemistry. C-CHM 641.

**CHM 662. Nanochemistry in Energy and Medicine. (3 h)**

New optoelectronic science and technologies, often involving nanotechnologies, photochemistry, and laser are revolutionizing many fields for solar energy conversion has inspired many researchers across different chemical, physical and engineering disciplines. Implementation of new laser-based optical techniques, photochemistry, and nanotechnology concepts have enabled dramatic progress in biomedical science where their potential is still developing rapidly. The goal of this course is to familiarize students with advanced topics in nanomaterials science, nanosynthesis, photochemistry, energy conversion, optoelectronics, and biomedical photonics. In this course nanomaterials structures, nanodevices, and time-resolved (fs-ms) photochemical processes involved in energy conversion and biomedical applications will be discussed. The energy and optoelectronic materials sections cover a broad range of different systems including organic, inorganic molecular materials, polymers, and semiconductors, applied in energy conversion and optoelectronics. The photochemical processes in these optoelectronic systems will be described. This includes light-driven optical, electronic, and chemical processes in a broad range of materials such as organic molecular materials, metal-organic dyes, polymers and semiconductors, that govern the behavior of optoelectronic and photovoltaic devices. Practical applications, device schemes, different generations, and recent progress in the field will be overviewed. The use of ultrafast laser techniques for the photochemical understanding of optoelectronic materials and interfaces will be covered. The application of nanomaterials and laser spectroscopy techniques in biomedical imaging (biomedical photonics) will be discussed. This includes nanodevices such as biosensors, drug delivery/release systems, for biomedical applications. The laser biomedical imaging techniques and optoelectronic approaches for clinically monitoring of early disease states and molecular diagnostics will be discussed.

**CHM 664. Materials Chemistry. (3 h)**

A survey of inorganic-, organic-, bio-, and nano-materials, including hybrid materials and applications.

**CHM 664L. Materials Chemistry Lab. (1 h)**

Synthesis of inorganic and organic based materials and their characterization. Lab-four hours.

**CHM 666. Chemistry and Physics of Solid State Materials. (3 h)**

Design, synthesis, structure, chemical and physical properties, and the application of solid state materials.

**CHM 670. Biochemistry: Macromolecules and Metabolism. (3 h)**

A lecture course introducing the principles of biochemistry, with emphasis on the experimental approaches that elucidated these principles. Major topics include structure, function, and biosynthesis of biological molecules, analysis of enzyme function and activity, bioenergetics, and regulation of metabolic pathways.

**CHM 673. Biochemistry Protein and Nucleic Acid Structure and Function. (3 h)**

Special topics in biochemistry including catalytic mechanisms of enzymes and ribozymes, use of sequence and structure databases, and molecular basis of disease and drug action. P-CHM 670 or POI.

**CHM 676. Biophysical Chemistry. (3 h)**

Introduction to a variety of technologies (e.g. thermochemistry, electrochemistry, spectrometry, and spectroscopy) for determining physical properties of biomolecules. From these properties, the biological function can be more readily understood and leveraged for medical gain. In addition to problem sets, students will have opportunities to hone science communication skills through a writing assignment and oral presentation. P-CHM 670 or POI.

**CHM 681. Chemistry Seminar & Literature. (0.5 h)**

Discussions of contemporary research and introduction to the chemical literature and acquisition of chemical information. May be repeated for credit. Pass/Fail only.

**CHM 682. Chemistry Seminar & Literature. (0.5 h)**

Discussions of contemporary research and introduction to the chemical literature and acquisition of chemical information. May be repeated for credit. Pass/Fail only.

**CHM 701. Advanced Physical Chemistry. (3 h)**

An accelerated survey of classical and statistical thermodynamics, chemical kinetics, and quantum chemistry. Staff.

**CHM 711. Directed Study in Chemistry. (1, 2 h)**

Reading and/or lab problems carried out under supervision of a faculty member. P-Permission of graduate committee. May be repeated for credit if topic varies.

**CHM 712. Directed Study in Chemistry. (1, 2 h)**

Reading and/or lab problems carried out under supervision of a faculty member. P-Permission of graduate committee. May be repeated for credit if topic varies.

**CHM 721. Advanced Organic Chemistry. (3 h)**

An accelerated survey of organic reactions and mechanisms. King, Welker, Jones.

**CHM 722. Physical Organic Chemistry. (3 h)**

Physical methods for determining structure-activity correlations and reaction.

**CHM 723. Transition-Metal Organic Chemistry. (3 h)**

Introduction to principles of bonding in organometallic chemistry and organometallic reaction mechanisms. Uses of transition-metal complexes in organic synthesis. Welker.

**CHM 724. Organic Synthesis. (3 h)**

Modern principles of organic synthesis and retrosynthetic analysis. Stereoselective synthesis of complex natural products. King, Welker, Jones.

**CHM 725. Structure Identification in Organic Chemistry. (3 h)**

Theory and use of spectroscopic techniques for structural identification of organic compounds. King, Welker.

**CHM 726. Reactive Intermediates. (3 h)**

Mechanistic and preparative photochemistry. Structure and chemistry of excited states, free radicals, carbenes, and selected ions. Jones.

**CHM 735. Spectrochemical Analysis. (3 h)**

Principles of atomic and molecular spectrometric methods; discussion of instrumentation, methodology, and applications.

**CHM 736. Chemical Separations. (3 h)**

Theory and practice of modern separation methods with emphasis on gas and liquid chromatographic techniques. Hinze, Jones, Colyer.

**CHM 737. Electrochemical Processes. (3 h)**

Principles of electrochemical methods, ionic solutions, and electrochemical kinetics. Colyer, Hinze, Jones, Nofle.

**CHM 738. Statistics for Analytical Chemistry. (3 h)**

Practical investigation of the statistical procedures employed in modern analytical chemistry.

**CHM 739. Special Topics in Analytical Chemistry. (3 h)**

The study of topical fields of research in analytical chemistry, with a focus on one or more specialties, such as ICP-MS; fluorescence, LIBS; Raman spectroscopy; nanoparticles in analysis; biosensors; or others. May be repeated for credit if course content differs.



**CHM 740. Drug Discovery, Design, and Development - Molecules to Medicines. (3 h)**

Conducted as a combination of lectures, reading assignments, and student-led discussions. Examines drug discovery and development pathways from target and lead compound identification through metabolic and toxicology studies, clinical trials, FDA approval, and marketing. Regulatory processes, intellectual property, and ethical issues are also considered. Taught by WFU faculty from both the Reynolda and Bowman Gray campuses and colleagues in the pharmaceutical and biotechnology industries, students work in teams to present case studies on the discovery, development, and marketing of recently approved pharmaceuticals. Also listed as BAMB 740. P-Organic chemistry and biochemistry.

**CHM 745. Statistical Thermodynamics. (3 h)**

The application of statistical mechanics to chemistry to understand and predict the thermodynamic properties. Kondepudi.

**CHM 746. Chemical Kinetics. (3 h)**

Kinetics and mechanisms of chemical reactions; theories of reaction rates. Swofford, Kondepudi.

**CHM 747. Self-Organization in Nonequilibrium Chemistry. (3 h)**

Study of the phenomena of self-organization, such as oscillations, multistability, propagating waves, and formation of spatial patterns. Kinetic systems with autocatalysis will be studied using bifurcation theory and other methods of non-linear systems. Kondepudi.

**CHM 751. Biochemistry of Nucleic Acids. (1.5-3 h)**

Advanced survey of the structure, reactivity, and catalytic properties of RNA and DNA, including modern experimental techniques. Current literature will be presented and critically evaluated.

**CHM 752. Protein Chemistry. (1.5-3 h)**

Advanced survey of protein biochemistry with an emphasis on structural families, enzyme catalytic mechanisms, expression and purification methods, and biophysical and structural experimental techniques.

**CHM 753. Chemical Biology. (3 h)**

Survey of the origins and emerging frontiers of chemical biology, with a focus on the impact of chemical methods on our understanding of biology. Topics include protein design, chemical genetics, and methods in genomics and proteomics research.

**CHM 755. Biomolecular Mass Spectrometry: Fundamentals and Applications. (1.5-3 h)**

Designed for graduate and advanced undergraduates focusing on the principles of mass spectrometry and use in the analysis of small molecules, peptides, proteins, and nucleic acids. Covers sample preparation, data acquisition and interpretation, database searching, and quantification of molecules using a variety of techniques.

**CHM 756. Biomolecular NMR. (1.5 h)**

One half-semester course designed for graduate and advanced undergraduates focusing on NMR of small oligonucleotides and proteins. Covers sample preparation, data acquisition and processing as well as generating solution structures from NMR data. A student should have command of 1D acquisition and processing as well as experience with 2D acquisition and processing before taking this class. All computational exercises will involve some familiarity with UNIX operating system. P-POI.

**CHM 757. Macromolecular Crystallography. (1.5 h)**

This is a one-half semester course designed for graduate and advanced undergraduates focusing on structural characterization of macromolecules utilizing x-ray crystallography. The course will cover sample preparation, diffraction theory, data acquisition and processing as well as structure solution and refinement techniques. P-CHM 356A/656 highly recommended.

**CHM 761. Chemistry of the Main Group Elements. (3 h)**

Principles of bonding, structure, spectroscopy, and reactivity of compounds of the main group elements. Synthesis and applications of organometallic compounds of the main group. Noftle.

**CHM 762. Coordination Chemistry. (3 h)**

Theory, structure, properties, and selected reaction mechanisms of transition metal complexes. Design and synthesis of ligands and their applications in bioinorganic chemistry. Bierbach, Melson.

**CHM 764. Chemical Applications of Group Theory and Symmetry. (3 h)**

Symmetry, group theory, bonding, and spectroscopy. Applications to structure, stereoisomers, multicenter bonding and symmetry-controlled reactions. Bierbach, Lachgar, Noftle.

**CHM 765. Bioinorganic Chemistry. (3 h)**

The inorganic chemistry of life. a) Metals in biocatalysis: elucidation of structure and function of metalloenzymes by various spectroscopic and molecular biology methods; biomimetic ligands; synthetic models of active sites. b) Metals and toxicity. c) Inorganic compounds in therapy and diagnosis. Bierbach.

**CHM 771. Quantum Chemistry. (3 h)**

The quantum theory and its application to the structure, properties, and interactions of atoms and molecules. Theoretical and computational approaches. Salam, Swofford.

**CHM 791. Thesis Research I. (1-9 h)**

Staff.

**CHM 792. Thesis Research II. (1-9 h)**

Staff.

**CHM 829. Tutorial in Organic Chemistry. (3 h)**

King, Welker, Jones.

**CHM 830. Heterocyclic Chemistry. (3 h)**

Survey of the major groups of heterocyclic compounds. Modern applications of heterocycles. King.

**CHM 831. Principles of Chemical Carcinogenesis. (3 h)**

Fundamental chemistry of carcinogenesis. Survey of the chemistry and structure of carcinogenic compounds. Defense and chemotherapeutics.

**CHM 832. Theoretical Organic Chemistry. (3 h)**

Molecular orbital treatment of structure and reactivity of organic molecules with emphasis on the applications of MO theory in pericyclic and photochemical reactions. Welker.

**CHM 833. Advanced Reaction Mechanisms. (3 h)**

Detailed analysis of mechanisms with emphasis on characterization of transition state structure.

**CHM 838. Advances in Analytical Chemistry - Luminescence Spectroscopy. (3 h)**

Instrumentation, methods, and applications of molecular luminescence spectroscopy.

**CHM 839. Tutorial in Analytical Chemistry. (2-3 h)**

Colyer, Hinze, Jones.



**CHM 843. Tutorial in Advanced Kinetics. (3 h)**

**CHM 844. Tutorial in Thermodynamics/Statistical Mechanics. (3 h)**  
Kondepudi.

**CHM 848. Lasers in Physical Chemistry. (3 h)**

Survey of lasers and their use to study physical-chemical processes. Topics include types of lasers, range of spectral and temporal operation, methods of detection, and application to specific chemical problems. Swofford.

**CHM 849. Tutorial in Chiral Asymmetry in Chemistry and Physics. (3 h)**

Chiral asymmetry in nuclear, atomic, and molecular interactions. General group theoretic approach to spontaneous chiral symmetry breaking and the study of specific mechanisms. Kondepudi.

**CHM 861. Applications of Electrochemistry. (3 h)**

Determination of inorganic and organic reaction mechanisms, electrochemical synthesis, applications to materials science. Nofle.

**CHM 862. Special Topics in Coordination Chemistry. (3 h)**

Selected applications of transition metal chemistry such as in paramagnetic resonance (NMR, EPR), bioinorganic chemistry, and industrial process. Bierbach, Melson.

**CHM 863. Crystallography. (3 h)**

Crystal structure determination using powder and single crystal X-ray diffraction. Lachgar.

**CHM 864. Modern Chemical Spectroscopy. (3 h)**

Applications of vibrational, rotational, electronic, and nuclear spectroscopy to current problems in chemistry. Bierbach, Lachgar, Nofle.

**CHM 865. Metallopharmaceuticals. (3 h)**

Design and mechanism of metal-containing pharmaceuticals in cancer therapy and diagnosis.

**CHM 869. Tutorial in Inorganic Chemistry. (3 h)**

Bierbach, Nofle, Lachgar.

**CHM 871. Advanced Quantum Chemistry. (3 h)**

Advanced quantum mechanical methods for the investigation of electronic structure and radiation-molecule interaction.

**CHM 879. Tutorial in Theoretical Chemistry. (3 h)****CHM 888. Dependent Proposal. (3 h)**

Course requires a written document detailing the Ph.D. project and an oral exam covering the basic chemical principles, foundation of the plan and experimental design. Pass/Fail. Must be taken before the 6th semester of residence.

**CHM 891. Dissertation Research I. (1-9 h)****CHM 892. Dissertation Research II. (1-9 h)**

## Communication (COM)

**COM 602. Argumentation Theory. (3 h)**

Examination of argumentation theory and criticism; emphasis on both theoretical issues and social practices. Offered in alternate years. Hazen, Zulick.

**COM 603S. Directing the Forensics Program. (1-3 h)**

A pragmatic study of the methods of directing high school and college forensics. Laboratory work in the High School Debate Workshop. Summer only. Staff.

**COM 604. Freedom of Speech. (3 h)**

Examination of the philosophical and historical traditions, significant cases, and contemporary controversies concerning freedom of expression. Offered in alternate years. Llewellyn, Zick.

**COM 605. Communication and Ethics. (3 h)**

A study of the role of communication in ethical controversies. Hyde.

**COM 610. Media Production II. (3 h)**

Students produce advanced media projects over which they assume significant creative control.

**COM 612. Film History to 1945. (3 h)**

Survey of the developments of motion pictures to 1945. Includes lectures, readings, reports, and screenings. Dalton.

**COM 613. Film History since 1945. (3 h)**

Survey of the development of motion pictures from 1946 to present day. Includes lectures, readings, reports, and screenings. Dalton.

**COM 614. Media Effects. (3 h)**

Theoretical approaches to the role of communication in reaching mass audiences and its relationship to other levels of communication. Mitra.

**COM 615. Communication and Technology. (3 h)**

Exploration of how communication technologies influence the social, political, and organizational practices of everyday life. Hyde, Mitra.

**COM 616. Screenwriting. (3 h)**

Introduction to narrative theory as well as examination of the role of the screenwriter in the motion picture industry, the influence of genre on screenwriting, and exploration of nontraditional narrative structures. Students complete an original, feature-length screenplay.

**COM 617. Communication and Popular Culture. (3 h)**

Explores the relationship between contemporary media and popular culture from a cultural studies perspective using examples from media texts. Mitra.

**COM 619. Media Ethics. (3 h)**

Examines historical and contemporary ethical issues in the media professions within the context of selected major ethical theories while covering, among other areas, issues relevant to journalism, advertising, public relations, filmmaking, and media management.

**COM 620. Media Theory and Criticism. (3 h)**

Critical Study of media including a survey of major theoretical frameworks.

**COM 629. The Arab-Israeli-Palestinian Conflict as a Communication Phenomenon. (3 h)**

Explores the evolution of the Arab-Israeli-Palestinian conflict from the end of the Nineteenth Century to its contemporary dynamic as a communication phenomenon; focusing on the narratives of the parties to the conflict as viewed through the lens of extant communication-grounded conflict theory.

**COM 630. Communication and Conflict. (3 h)**

Review of the various theoretical perspectives on conflict and negotiation as well as methods for managing relational conflict. Rogan.

**COM 634. Narrative Approaches to Entrepreneurship. (3 h)**

Embraces narrative theory to examine how myths, stories, and other tropes form the basis on which we understand entrepreneurship. We will consider diverse and alternative stories as well as the construction of the neoliberal individual in a postmodern epoch.

**COM 635. Survey of Organizational Communication. (3 h)**

Overview of the role of communication in constituting and maintaining the pattern of activities that sustain the modern organization. Llewellyn, McMillan.

**COM 636. Organizational Rhetoric. (3 h)**

Explores the persuasive nature of organizational messages - those exchanged between organizational members and those presented on behalf of the organization as a whole. Offered in alternate years. McMillan.

**COM 637. Rhetoric of Institutions. (3 h)**

A study of the communication practices of institutions as they seek to gain and maintain social legitimacy. Offered in alternate years. Llewellyn.

**COM 638. The Art of Twentieth-Century African-American Rhetoric. (3 h)**

Explores how African Americans have invented a public voice in the twentieth century. Focuses on how artistic cultural expression, in particular, has shaped black public speech. Watts.

**COM 639. Practices of Citizenship. (3 h)**

Explores the history and theory of citizenship as a deliberative practice linked to the rhetorical tradition of communication with an emphasis on participatory and deliberative skills as part of the process in which communities are formed and citizens emerge as members.

**COM 640. Democracy, Slavery, and Sex: Emancipation Discourse from the Founding to the Civil War. (3 h)**

Examines the influence of emancipation movements on American public discourse by reading and analyzing original speeches and documents with emphasis on abolition of slavery and woman's rights.

**COM 641. Class, Race, Sex and War: Emancipation Discourse from the Civil War to the Second Wave of Feminism. (3 h)**

Examines the influence of emancipation movements on American public discourse by reading and analyzing original speeches and documents. Among the movements addressed are labor, civil rights, student protest, and women's liberation.

**COM 642. Political Communication. (3 h)**

Study of electoral communication including candidate and media influences on campaign speeches, debates and advertising. Offered in alternate years. Louden.

**COM 643. Presidential Rhetoric. (3 h)**

Examines theory and practice of speechmaking and mediated presidential communication. Louden.

**COM 650. Intercultural Communication. (3 h)**

Introduction to the study of communication phenomena between individuals and groups with different cultural backgrounds. Offered in alternate years. Hazen, Mitra, Rogan.

**COM 651A. Comparative Comm Japan. (1.5, 3 h)**

Comparison of communicative and rhetorical processes in the U.S. with one or more other national cultures with an emphasis on both historical and contemporary phenomena. a) Japan; b) Russia; c) Great Britain; d) Multiple countries. Offered in alternate years. Hazen.

**COM 654. International Communication. (3 h)**

In-depth look at the role of mass media in shaping communication between and about cultures using examples from traditional and emerging media systems. Hazen, Mitra.

**COM 655. Health Communication. (3 h)**

Examination of theories, research, and processes of health communication in contemporary society. May be repeated for credit.

**COM 656. Health Comm: Patient-Provider. (3 h)**

Explores contemporary issues related to communication in health care contexts, notably theories and research on patient-provider communication.

**COM 657. Health Comm Campaigns. (3 h)**

Examination of the principles behind designing, implementing, and evaluating a health campaign, including message design and application of media theories for behavior change.

**COM 664. Narrative, Communication, and Health. (3 h)**

Combines theory and research in social science with narrative in multiple forms: film, visual art, memoir, short story, and poetry. Explores the power of story to transform human lives with an emphasis on health. Asks: What is narrative? How does narrative shape who we are? How does narrative inform our understanding and experience of wellness and illness? How does narrative influence health communication in our personal relationships? What role can narrative play in medical education, medical practice, and public health campaigns? Through careful study and reflection, students discover how story can create positive change on a personal, professional, and societal level.

**COM 670. Special Topics. (1-4 h)**

Examination of topics not covered in the regular curriculum. Staff.

**COM 680. Great Teachers. (3 h)**

Intensive study of the ideas of three noted scholars and teachers in the field of communication. Students interact with each teacher during a two- or three-day visit to Wake Forest. Staff.

**COM 719. Theory and Research Design in Communication Science. (3 h)**

Examination of communication science theory with a focus on critiquing and utilizing theory in research, accompanied by an overview of quantitative research design and methodology. Giles, Helme, Mitra, Rogan.

**COM 720. Quantitative Analysis in Communication Science. (3 h)**

Overview of statistical data analysis, interpretation, and reporting for communication research. P-COM 719. Giles, Helme, Mitra, Rogan.

**COM 752. Contemporary Rhetorical and Communication Theory. (3 h)**

Introduction to theory building in human communication and rhetoric, with a survey and evaluation of major contemporary groups of theorists. Approaches studied are those which emphasize the symbol (George Herbert Mead and Kenneth Burke), human relations (Martin Buber), the media (Marshall McLuhan), and systems (Norbert Wiener). Hazen, Watts.

**COM 753. Seminar in Persuasion. (3 h)**

Study of contemporary social science approaches to persuasion theory and research. Influence is examined with interpersonal, social, and mass media contexts. Louden.

**COM 758. Rhetorical Theory. (3 h)**

Introduction to primary texts in the theory of rhetoric including classical theories, dramatism, semiotics, and critical/cultural studies. Llewellyn, McMillan, Watts, Zulick.

**COM 759. Rhetorical Criticism. (3 h)**

The critical application of rhetorical theories aligning with the traditions covered in Communications 758. P-Communications 758.

**COM 763. Proseminar in Communication. (1.5 h)**

Introduction to graduate study in communication. Mitra.

**COM 764. Proseminar in Communication. (1.5 h)**

Introduction to graduate study in communication. Mitra.

**COM 773. Seminar in Interpersonal Communication. (3 h)**

Study of recent research and theoretical developments in dyadic communication. Methodology examined includes conversational analysis, field, and experimental approaches. Rogan.

**COM 774. Research and Theory of Organizational Communication. (3 h)**  
Advanced study of theoretical approaches to the role of communication in organizations and empirical application of such theories. Llewellyn, McMillan.

**COM 780. Special Seminar. (1-3 h)**

Intensive study of selected topics in communication. Topics may be drawn from any theory or content area of communication and offer a wide variety of special topics across a two year program. May be repeated for credit for a maximum of 12 hours.

**COM 781. Readings and Research in Speech Communication. (1-3 h)**

Students may receive credit for a special reading project in an area not covered by regular courses or for a special research project not related to the master's thesis. May be repeated for credit for a maximum of 16 hours.

**COM 782. Readings and Research in Speech Communication. (1-3 h)**

Students may receive credit for a special reading project in an area not covered by regular courses or for a special research project not related to the master's thesis. May be repeated for credit for a maximum of 16 hours.

**COM 791. Thesis Research I. (1-9 h)**

Staff.

**COM 792. Thesis Research II. (1-9 h)**

Staff.

## Computer Science (CSC)

**CSC 611. Computer Architecture. (3 h)**

An in-depth study of computer systems and architecture design. Topics include processor design, memory hierarchy, external string devices, interface design, and parallel architectures.

**CSC 621. Database Management Systems. (3 h)**

Introduction to large-scale database management systems. Topics include data independence, database models, query languages, security, integrity, and transactions.

**CSC 622. Data Management and Analytics. (3 h)**

Management, analysis, and visualization of large-scale data sets. Topics include key-value databases, distributed file systems, map reduce techniques, similarity measures, link analysis, and clustering. P - CSC 621.

**CSC 631. Software Engineering. (3 h)**

Study of fundamental topics in software engineering including software processes, agile software development and project management, requirements engineering, system modeling, design patterns and implementation, and software testing. Students practice software engineering principles through team projects.

**CSC 632. Mobile and Pervasive Computing. (3 h)**

Study of the fundamental design concepts and software principles underlying mobile and pervasive computing, including mobile interface design, data management, mobile networks, location aware computing, and mobile security. Involves significant programming on modern mobile platforms.

**CSC 633. Principles of Translators for Compilers and Interpreters. (3 h)**

Study of techniques for translating high-level programming languages to a target language. Typical target languages include Java bytecode and assembly language. Topics include lexical analysis, parsing, intermediate representatives, language semantics, code generation, and optimization.

**CSC 641. Operating Systems. (3 h)**

Study of the different modules that compose a modern operating system. In-depth study of concurrency, processor management, memory management, file management, and security.

**CSC 643. Internet Protocols. (3 h)**

Study of wide area connectivity through interconnection networks. Emphasis is on Internet architecture and protocols. Topics include addressing, routing, multi-casting, quality of service, and network security.

**CSC 646. Parallel Computation. (3 h)**

Study of techniques for parallel and high performance computing. Topics include an overview of modern high-performance computer design, pipelining, concurrency, data dependency, shared memory, message passing, and graphics processors. Select parallel algorithms and methods for asymptotic scalability analysis are also presented. Assignments may include coding with OpenMP, MPI, and the CUDA library.

**CSC 647. GPU Programming. (3 h)**

An introduction to general purpose parallel program development on Graphics Processing Units (GPUs). Topics covered will include data parallelism, memory and data locality, parallel algorithm patterns and performance metrics, and application test studies.

**CSC 648. Computer Security. (3 h)**

Introduction to computer security concepts and associated theory. Detailed coverage of the core concepts of access control, cryptography, trusted computing bases, digital signatures, authentication, network security, and secure architectures. Legal issues, security policies, risk management, certification and accreditation are covered in their supporting roles. Students will learn to analyze, design, and build secure systems of moderate complexity. P—CSC 241.

**CSC 652. Numerical Linear Algebra. (3 h)**

Numerical methods for solving matrix and related problems in science and engineering using high-level matrix-oriented language such as MATLAB. Topics include systems of linear equations, least squares methods, and eigenvalue computations. Special emphasis is given to applications. Credit is not allowed for both CSC 652 and MTH 626.

**CSC 655. Introduction to Numerical Methods. (3 h)**

An introduction to numerical computations on modern computer architectures; floating point arithmetic and round-off error including programming in a scientific/engineering language such as MATLAB, C or Fortran. Topics include algorithms and computer techniques for the solution of problems such as roots of functions, approximations, integration, systems of linear equations and least squares methods. Credit not allowed for both MST 655 and CSC 655.

**CSC 661. Digital Media. (3 h)**

Study of the mathematics and algorithms underlying digital sound, image, and video manipulation. Topics may include sampling and quantization, resolution, filters, transforms, data encoding and compression, multimedia files types and transmission, 3D printing, and digital media in multimedia and web programming.

**CSC 663. Computer Graphics. (3 h)**

Study of software and hardware techniques in computer graphics. Topics include line and polygon drawing, hidden line and surface techniques, transformations, and ray tracing.

**CSC 665. Image Processing Fundamentals. (3 h)**

Study of the basic theory and algorithms for image enhancement, restoration, segmentation, and analysis.

**CSC 671. Artificial Intelligence. (3 h)**

An overview of areas of study in artificial intelligence. Topics are chosen from among knowledge representation, formal logic, fuzzy logic, intelligent agents, expert systems, machine learning, robotics, and natural language processing.

**CSC 673. Data Mining. (3 h)**

An overview of data mining methods and algorithms for classification, association analysis, clustering, and anomaly detection. A major focus will be on the implementation of algorithms for and design and construction of solutions to data mining problems. Applications and ethical considerations of data mining in humanities, arts, and healthcare are discussed.

**CSC 675. Neural Networks and Deep Learning. (3 h)**

An introduction to concepts and applications of neural networks and deep learning, a branch of machine learning that uses additional layers of high-level representations of data to maximize performance on a given task. The topics covered may include basic neural networks, deep neural networks, and convolutional and recurrent neural networks. Students learn the theoretical concepts behind several of types of neural network algorithms and gain practical experience applying them.

**CSC 685. Bioinformatics. (3 h)**

Introduction to bioinformatics and computing techniques essential to current biomedical research. Primary focus is gene and protein sequence and structure databases and algorithms for sequence and structure analysis. Emphasizes interdisciplinary interaction and communication. Also listed as PHY 685 and BIO 685.

**CSC 687. Computational Systems Biology. (3 h)**

Introduction of concepts and development of skills for comprehension of modern systems biology research problems, including both biological and computational aspects. Topics may include microarrays, protein interaction networks, large-scale proteomics experiments, and algorithms and computational approaches for modeling, storing, and analyzing the resulting data sets. Emphasizes interdisciplinary interaction and communication.

**CSC 691. Selected Topics. (1-3 h)**

Topics in computer science that are not studied in regular courses or which further examine topics begun in regular courses. P-POI.

**CSC 693. Individual Study. (1, 2 h)**

Independent study directed by a faculty adviser. By prearrangement.

**CSC 702. Theory of Computation. (3 h)**

Basic theoretical principles of computer science. Topics include the relationship between automata and grammars, Church's thesis, unsolvability, and computational complexity.

**CSC 721. Theory of Algorithms. (3 h)**

Design and analysis of algorithms. Topics may include time and space complexity analysis, divide-and-conquer algorithms, the fast Fourier transform, NP-complete problems, and efficient algorithms for operations on lists, trees, graphs, and matrices.

**CSC 726. Parallel Algorithms. (3 h)**

A thorough, current treatment of parallel processing and supercomputing. Modern high-performance commercial architectures, parallel programming, and various supercomputing applications are discussed. Hands-on experience is emphasized. Students are given access to a variety of machines.

**CSC 731. Compiler Optimization. (3 h)**

Design and implementation of optimizing compilers. Optimization techniques, parallelizing transforms, and comparative examples form the literature. P-CSC 633.

**CSC 743. Topics in Operating Systems. (3 h)**

Issues in operating system development; resource management, queuing theory, concurrent processing, and languages for operating system development. P-CSC 641.

**CSC 753. Nonlinear Optimization. (3 h)**

The problem of finding global minimums of functions is addressed in the context of problems in which many local minima exist. Numerical techniques are emphasized, including gradient descent and quasi-Newton methods. Current literature is examined and a comparison made of various techniques for both unconstrained and constrained optimization problems. Credit not allowed for both MTH 753 and CSC 753. P-CSC or MTH 655.

**CSC 754. Numerical Methods for Partial Differential Equations. (3 h)**

Numerical techniques for solving partial differential equations (including elliptic, parabolic and hyperbolic) are studied along with applications to science and engineering. Theoretical foundations are described and emphasis is on algorithm design and implementation using either C, FORTRAN or MATLAB. Also listed as MTH 754. P-CSC 655 or MTH 655.

**CSC 764. Machine Learning. (3 h)**

An introduction to concepts and application of machine learning algorithms and techniques, focusing on supervised and unsupervised learning. Students learn the theoretical concepts behind several types of machine learning algorithms and gain practical experience applying them. Algorithms covered could include logistic regression, support vector machines, regularization, dimensional reduction, clustering, and neural networks.

**CSC 765. Image Processing. (3 h)**

Advanced techniques in image processing including image formation and corruption models, digitization, Fourier domain methods, enhancement, restoration, and tomographic reconstruction. P-CSC 721.

**CSC 766. Pattern Recognition. (3 h)**

Study of statistical pattern recognition techniques and computer-based methods for decision-making, including discriminant functions, feature extraction, and classification strategies. Emphasis is on applications to medical image analysis. P-POI.

**CSC 767. Computer Vision. (3 h)**

Techniques for extracting features from images: optimal thresholding, 2D and 3D feature measurement, graph isomorphism and graph matching methods. P-CSC 766.

**CSC 775. Neural Networks. (3 h)**

Design of artificial neural networks. Introduction to the relevant neurophysiology, feedforward networks, recurrent networks, and applications to pattern recognition and optimization.

**CSC 779. Topics in Artificial Intelligence. (3 h)**

Advanced topics in artificial intelligence. Individual projects are assigned. P-CSC 671.

**CSC 781. Computer Science Seminar. (0 h)**

Discussions of contemporary research. No credit.

**CSC 790. Advanced Topics in Computer Science. (3 h)**

Advanced topics of current interest in computer science not covered by existing courses. P-POI.

**CSC 791. Thesis Research I. (1-9 h)**

May be repeated for a maximum of 18 hours each. Satisfactory/Unsatisfactory.

**CSC 792. Thesis Research II. (1-9 h)**

May be repeated for a maximum of 18 hours each. Satisfactory/Unsatisfactory.



**CSC 795. Project. (3 h)**

Satisfactory/Unsatisfactory.

**CSC 796. Internship. (1-6 h)**

Provides students an opportunity to integrate computer science theory and practice by working in a supervised and professional setting. The course is limited to those seeking the fifth-year Master's in computer science and approval must be obtained by the Computer Science Graduate faculty prior to enrollment. Credit hours may be adjusted based on the length of the internship. May be repeated. Satisfactory/Unsatisfactory. P-CSC 631 (admission to the 5th year program).

## Counseling (CNS)

**CNS 721. Research and Statistical Analysis in Counseling. (3 h)**

Qualitative and quantitative research methods. Analysis and evidence-based evaluation of research-based literature in the counseling field. Grant writing. Program evaluation. Descriptive, Inferential, parametric and non parametric statistical procedures involved in research. Shaw.

**CNS 723. Statistical Analysis for the Helping Professions. (3 h)**

Descriptive and inferential (parametric and nonparametric) statistical procedures involved in research. Computer methods for statistical analysis. Counseling students only.

**CNS 736. Appraisal Procedures for Counselors. (3 h)**

Appraisal, assessment, and diagnosis of personality, emotional, intellectual, and learning characteristics and disorders of clients in schools, colleges, and community human service agencies. Use of tests in counseling as an adjunct to clinical impressions. Newsome.

**CNS 737. Basic Counseling Skills and Techniques. (3 h)**

Basic communication skills, helping relationships, and strategies for personal change. Issues and ethics in counseling. Newsome.

**CNS 738A. Counseling Practicum - School. (3 h)**

Supervised experience for the development of individual and group counseling skills under individual and group supervision in a school or clinical mental health agency. Involvement in direct service work and activities similar to those of regularly employed professional staff. Henderson, Newsome. P - CNS 737.

**CNS 738B. Counseling Practicum - Clinical Mental Health. (3 h)**

Supervised experience for the development of individual and group counseling skills under individual and group supervision in a school or clinical mental health agency. Involvement in direct service work and activities similar to those of regularly employed professional staff. Henderson, Newsome. P - CNS 737.

**CNS 739. Advanced Counseling Skills and Crisis Management. (3 h)**

Topics covered will be advanced and specialized counseling interventions including crisis intervention, suicide prevention, and emergency management models. Students will be required to demonstrate appropriate skill level. P-CNS 737.

**CNS 740. Professional Orientation to Counseling. (3 h)**

Covers the history, roles, organizational structures, ethics, standards, specializations, and credentialing in the profession of counseling. Public policy processes and contemporary issues are also considered. Gladding.

**CNS 741. Theories and Models of Counseling. (3 h)**

Study of theories and approaches to professional counseling: psychoanalytic (Freud, Adler, Jung), person-centered (Rogers), existential (May, Frankl), behavioral (Skinner, Glasser), cognitive/rational (Ellis), holistic/systemic, eclectic. Professional orientation, issues, ethics, cultural pluralism, and trends in counseling. Anderson, Karr.

**CNS 742. Group Procedures in Counseling. (3 h)**

An experiential and conceptual exploration of the psychological dynamics and interpersonal communication of small groups, including group structure, leadership models, group process and practice, stages of group development, group techniques, and ethical principles. Anderson.

**CNS 743. Career Development and Counseling. (3 h)**

Vocational development throughout life; psychological aspects of work; occupational structure and the classifications of occupational literature; theories of vocational choice and their implications for career counseling. Newsome.

**CNS 744A. Counseling Internship I A. School. (2, 3 h)**

Supervised counseling experience in a school, college, or community agency under a regularly employed staff member professionally trained in counseling. Observation of and active participation in direct service work to clients. Monitoring of audio or videotaped interviews. Case review. Henderson, Newsome, Anderson. P- CNS 738.

**CNS 744B. Counseling Internship I: Clinical Mental Health. (2, 3 h)**

Supervised counseling experience in a school, college, or community agency under a regularly employed staff member professionally trained in counseling. Observation of and active participation in direct service work to clients. Monitoring of audio or videotaped interviews. Case review. Henderson, Newsome, Anderson. P- CNS 738.

**CNS 745A. Counseling Internship II A. School. (2, 3 h)**

Supervised counseling experience in a school, college, or community agency under a regularly employed staff member professionally trained in counseling. Observation of and active participation in direct service work to clients. Monitoring of audio or videotaped interviews. Henderson, Newsome, Anderson. P- CNS 744: Internship I.

**CNS 745B. Counseling Internship II: Clinical Mental Health. (2, 3 h)**

Supervised counseling experience in a school, college, or community agency under a regularly employed staff member professionally trained in counseling. Observation of and active participation in direct service work to clients. Monitoring of audio or videotaped interviews. Henderson, Newsome, Anderson. P- CNS 744: Internship I.

**CNS 746. Counseling Children. (3 h)**

Theory and practice of counseling with children in schools and community agencies. Elementary school counseling; models, methods, and materials. Counseling children with special emotional, learning, psychological, or behavioral concerns. Henderson.

**CNS 747. Cultures and Counseling. (3 h)**

The influence of culture in human development and in counseling relationships. A study of personal and ethnic diversity and commonality. Henderson.

**CNS 748. Life Span Development: Implications for Counseling. (3 h)**

Examination of major theories and principles of human development across the life span, including physical, psychological, intellectual, social, and moral perspectives. Henderson.

**CNS 749. School Guidance and Counseling. (3 h)**

The organization and management of comprehensive school guidance and counseling programs. Individual and group counseling, consultation, coordination, and collaboration in student services in schools. Program development in elementary, middle, and secondary schools. Henderson.

**CNS 750. The Vienna Theorists-Freud, Adler, Moreno and Frankl. (3 h)**

Examination of the original writings of four of the leading theorists of modern counseling, which is enhanced by a visit to the city in which they initially formulated their clinical ideas. Students read and discuss several original writings of each practitioner-Freud, Adler, Moreno, and Frankl-prior to and during a two-week stay in the Wake Forest University Flow House in Vienna during which they visit relevant historical sites and institutes. Staff.

**CNS 752. Human Services Administration. (3 h)**

This course will focus on the knowledge, theory, and skills used in the administrative aspects of the human services delivery systems including organizational management, supervision, strategic planning, budgeting, grant and contract negotiation, and legal/regulatory issues. The course also covers managing the professional development of staff, recruiting and managing volunteers, and advocacy techniques. P-CNS 737, 741, 742.

**CNS 753. Human Services Program Planning and Evaluation. (3 h)**

This course will focus on the range and characteristics of human services delivery systems and major conceptual models used to integrate prevention, maintenance, intervention, and rehabilitation and healthy functioning. The course includes the history of human services as well as the systematic analysis of service needs. The course also covers the selection of strategies or interventions and the evaluation of outcomes. Prerequisites, CNS 741, CNS 737 and CNS 742.

**CNS 754. Human Services Fieldwork. (1-3 h)**

Field experience is a learning experience in a human services delivery organization in which the student will complete 350 hours of on-site volunteer work with an agency. Students, university supervisors, and on-site partners will determine the student's role, activities, outcomes, and instructional needs based on placement site possibilities. Prerequisites- CNS 752 and CNS 753.

**CNS 755A. Counseling Internship III A. School. (2 h)****CNS 755B. Counseling Internship III B. Clinical Mental Health. (2 h)****CNS 758. Studies in Educational Leadership. (3 h)**

This course includes examination of contemporary leadership theory and its various applications in education. It includes field work and reflections (Service Learning). P-EDU 644L.

**CNS 760. Issues in School Counseling. (3 h)**

This course is designed to allow students to investigate current issues related to the practice of school counseling. The emphasis will be on identifying appropriate prevention responses to these issues. Counseling students only.

**CNS 762. Issues in Clinical Mental Health Counseling. (3 h)**

Examines specific issues related to clinical mental health counseling including, but not limited to, reimbursement, outcome evaluation, advocacy strategies, clinical mental health counselor roles and functions.

**CNS 763. Specialized Study in Counseling. (1-3 h)**

"Exploration of special topics or areas of practice in the field of counseling. a. School Guidance and Counseling h. Rehabilitation b. College Student Development Services Counseling i. Adult Development/ Aging c. Mental Health Counseling j. Religious Counseling d. Marriage and Family Counseling k. Health Counseling e. Business/Industry Counseling l. Multicultural Counseling f. Correctional Counseling m. Holistic Counseling g. Career Counseling n. Tests, Measurements and Interpretation .

**CNS 764. Creative Arts in Counseling. (1-3 h)**

Examines history, theories, processes, and techniques of using the creative arts in counseling with clients throughout the life span. Particular attention is given to the visual and verbal arts, such as drawing, imagery, photography, cartooning, cinema, movement, dance, literature, drama, and music.

**CNS 765. Addiction Counseling. (3 h)**

Introduces the concepts of chemical dependency, counseling procedures and techniques, and treatment considerations. The student has opportunities to apply models of chemical dependency counseling to hypothetical situations at various stages of substance use. Veach.

**CNS 766. Crisis Prevention and Response. (3 h)**

This course will present counseling approaches which effectively address crises. The course will examine the characteristics and impact of trauma and crisis and potential neurobiological responses. Students will gain knowledge and skills useful in theory-based prevention and response models and community-based strategies for a diverse society. Students will also explore counseling and human service contexts for application of assessment and intervention approaches in addressing specific crisis situations.

**CNS 767. Human Sexuality. (3 h)**

This course is designed for counseling students whose work will bring them into contact with clients experiencing problems and concerns with their sexuality. The course is designed to develop: a) students' knowledge base related to human sexuality, b) an understanding of the varied sexuality issues which may be encountered in professional counseling practice, c) students' skills in assessment and intervention skills with sexuality issues and d) increased awareness of one's personal perceptions, attitudes and affect related to sexuality issues. Course participants will become more effective in identifying, assessing, and intervening with human sexuality related counseling issues.

**CNS 768. PsychoPharmacology for Counselors. (3 h)**

Students will learn the basic principles of psychopharmacology, pharmacokinetics, and neurobiology as they pertain to their role as a professional counselor. They will learn how psychopharmacological drugs are classified, prescribed, and managed. The information presented in this course will prepare student to function as knowledgeable members of multi-disciplinary treatment teams serving clients seeking counseling services. Finally, students will gain knowledge about the important and complex ethical and legal issues that surround the use of psychopharmacological drugs.

**CNS 769. Advanced Counseling in a Diverse Society. (3 h)**

An advanced investigation into the complex elements of racism, social justice, and advocacy in the counseling relationship and beyond. An exploration of systemic disparities (ex. food deserts and health care) as well as anti-racist perspectives and actions in a diverse society, further promoting an in-depth personal and professional examination of implicit and explicit biases.

**CNS 770. Classification of Mental and Emotional Disorders. (3 h)**

Analyzes healthy and unhealthy personality, as well as developmental and situational problems in adjustment. Studies the classification of mental disorders, as defined by the American Psychiatric Association in the most recent edition of the Diagnostic and Statistical Manual of Mental Disorders. Examines appropriate ways in which diagnosis can be utilized by counselors to explore personality and systemic interventions for career, educational, and relationship concerns.

**CNS 771. Clinical Mental Health Counseling. (3 h)**

History, philosophy, organization, management, and delivery of counseling services in various clinical mental health settings. Preventative, developmental, and remedial strategies for use with various populations. Newsome.

**CNS 772. Marriage and Family Systems. (3 h)**

Study of the institutions of marriage and the family from a general systems perspective. Exploration of how changes in developmental and situational aspects of the family life cycle influence individuals within the systems of marriage and the family. Both horizontal and vertical dimensions of change are focused on through the use of genograms. Different forms of family lifestyles, such as dual career, single parent, and blended are covered. Gladding.

**CNS 773. Family Counseling. (3 h)**

Examination of the philosophy and goals of seven major theories of family counseling (Bowenian, Adlerian, psychodynamic, experiential/humanistic, behavioral, structural, strategic) as well as the development of the profession of family counseling from a historical and current trends perspective. Differences between family counseling and individual/group counseling are highlighted and ethical/legal considerations for working with family units are stressed. Techniques associated with theories are demonstrated through video and play simulations. Research methods for gathering data on families are highlighted. Gladding.

**CNS 774. Marriage Counseling. (3 h)**

Study of the philosophy and goals of six main theories of marriage counseling (psychoanalytic, social learning, Bowenian, structural-strategic, experiential/humanistic, and rational-emotive) and the techniques associated with each. Historical and current trends associated with the field of marriage counseling are explored, along with related issues such as premarital counseling, family-of-origin influences within marriage, and widowhood. Appropriate marriage assessment instruments, research methods, and ethical/legal questions involved in marriages counseling are addressed. Gladding.

**CNS 775. Marital and Family Health and Dysfunctionality. (3 h)**

Examines system and individual dynamics associated with marital and family health and dysfunctionality. Longitudinal research on factors connected with healthy, long-term marriages and functional family life are explored. Interactive patterns that lead to such marital and family dysfunctionality as spouse and child abuse, anorexia nervosa, addictive disorders, and dependency are examined. Gladding.

**CNS 776. Assessment and Treatment Planning in Addictions. (3 h)**

Examines screening, assessment, and diagnosis of addiction and co-occurring disorders. P-CNS 765, POI or a master's degree in the counseling field.

**CNS 777. Addictions Counseling Skills. (3 h)**

Explores the development of skills for individual and group counseling with persons diagnosed with addictive and co-occurring disorders.

**CNS 778. Addiction and the Family. (3 h)**

Explores the influence of addiction on family systems. Covers knowledge and skills for assisting individuals and families with substance abuse and addiction. P-CNS 765, POI or a master's degree in the counseling field.

**CNS 780. Professional, Ethical and Legal Issues in Counseling. (2 h)**

Provides an overview of the critical professional issues in counseling with emphasis on current ethical, legal, and values-related questions and the relationship of these issues to the counselor's role in training, supervision, consultation, appraisal, and research. P-Advanced graduate standing or permission of instructor. Anderson, Henderson.

**CNS 782. Developmental Counseling Psychology. (3 h)**

Theoretical, research, and methodological aspects of a developmental/holistic/systems framework for counseling. Integration and application of major theories and approaches to counseling. Staff.

**CNS 786. Consultation and Program Development in Counseling. (2 h)**

Consultation theory and process. Consultation with families, schools, colleges, and community agencies. Models for facilitating change in human systems. Anderson, Henderson.

**CNS 790. Professional Identity Capstone Course. (2 h)**

Review and application of counseling skills, settings, practice parameters and other current issues necessary to integrate students into the profession of counseling. P-CNS 744.

## Documentary Film Program (DOC)

**DOC 701. Internship I. (1.5 h)**

Internships may be taken for 1.5 credits on a pass/fail basis when approved by faculty members. These internships provide students the opportunity for experiential learning at production houses, television networks, public television stations, and at other facilities deemed useful as well as with independent producers.

**DOC 702. Internship II. (1.5 h)**

Internships may be taken for 1.5 credits on a pass/fail basis when approved by faculty members. These internships provide students the opportunity for experiential learning at production houses, television networks, public television stations and at other facilities deemed useful as well as with independent producers.

**DOC 703. Internship. (3 h)**

Internships provide students the opportunity for experiential learning at production houses, television networks, public television stations, and at other facilities deemed useful as well as with independent producers.

**DOC 713. Documentary Storytelling I. (3 h)**

The course provides an introduction to the fundamental theory and craft of non-fiction visual storytelling and familiarizes students with concepts such as drama, structure, story development and visual style.

**DOC 715. Cinematography and Sound. (3 h)**

Through a combination of lectures, film screening and hands-on demonstrations, this course will familiarize students with the basics of documentary shooting, lighting, and sound gathering.

**DOC 717. Fundamentals of Documentary Editing. (3 h)**

Through a combination of lectures, film screenings, hands-on demonstrations, and assignments, this course familiarizes students with the basics of documentary editing.

**DOC 718. Social Media and Marketing in the Creative Arts. (3 h)**

This course examines how social media is changing not just what content creators produce, but also the way creators engage with their audience by using social media and marketing techniques to drive attention to their work and enhance their overall brand. Through guest lectures, case studies and hands-on production - students will study each social media platform, learn how it's being used and see how it can be leveraged to enhance all aspects of the creative arts. Course may be offered on campus or online.

**DOC 722. Documentary Storytelling II. (3 h)**

This course teaches students how to research, conceptualize and develop a non-fiction story idea. Students receive instruction on effective research strategies, idea development, production planning, and proposal writing and pitching. P-DOC 713, 715, 717.

**DOC 724. Advanced Story Editing. (3 h)**

This course builds upon the storytelling skills learned in the Foundations of Story Editing course and complements the production techniques learned in Cinematography and Sound. Special emphasis will be placed on the aesthetics of editing and other post-production techniques. P-DOC 717.

**DOC 726. Advanced Sports Storytelling. (3 h)**

Introduces students to both the theoretical and technical aspects of non-fiction sports storytelling. Students will examine both historical and contemporary examples of sports storytelling, including various styles of documentaries, branded and commercial content, social media and web-based content, and podcasts. P-DOC 717.

**DOC 728. Documentary History. (3 h)**

Acquaints students with the historical development of documentary film from its roots in 19th-century art forms to the present. Examines various styles and techniques of documentary and analyzes the contribution of the documentary as a persuasive means of communication to achieve social and political goals. Open to all Wake Forest University graduate students with POI.

**DOC 730. Sports, Culture and Society. (3 h)**

Through films, case studies and discussions with sports professionals, media industry leaders and scholars we will look at how sports helps frame our common understanding of society's biggest social issues including race, gender, and human rights.

**DOC 733. The Business of Sports Media. (3 h)**

Students will get a high level understanding of the business of sports media and how the digital revolution is changing the game for content creators, leagues and teams. Through lectures, current periodicals, projects and guest speakers, students will learn to look beyond the final score and better understand the entire sports communication ecosystem.

**DOC 735. Documentary Law and Ethics. (3 h)**

Provides students with the opportunity to explore the ethical issues that can arise in documentary filmmaking. The discussion points will evolve from the in-depth examination of a select group of films and directors.

**DOC 737. Documentary Storytelling III. (3 h)**

The class focuses on advanced principles of writing, producing, directing and editing documentary. Theoretical, aesthetic, technical and ethical aspects of the creative non-fiction storytelling process will be the focus. The class format will be a combination of theory and practice as it relates to the dramaturgical process of filmmaking. P-DOC 713, 715, 717, 728, 722, 750.

**DOC 746. Documentary Storytelling IV. (3 h)**

The course combines lectures, screenings, and exercises to build a technical and aesthetic foundation in digital post-production. Special emphasis will be placed on advanced visual storytelling techniques—including continuity, pacing, character development and dramatic structure. Students will also explore various distribution strategies and transmedia applications P-DOC 713, 715, 717, 728, 722, 724, 750, 735, 737, 748.

**DOC 748. Creative Thesis Project. (1-9 h)**

Students will work under faculty supervision on their creative thesis projects.

**DOC 750. The Imagination Project. (3 h)**

Students will produce short films, digital study guides or E-books and/or other types of multimedia materials on important social, political, cultural and economic issues. The course, structured around digital media projects, provides opportunities for students to immerse themselves in a single topic and interact with scholars from various disciplines. The topics will vary each year. P-DOC 713, 715, 717.

**DOC 751. Pedagogy and Curriculum. (3 h)**

Provides an understanding of pedagogical practices and major theories of curriculum and a foundation for students interested in pursuing careers in academe.

**DOC 753. Individual Study. (1-3 h)**

For students who wish to perform independent study in a cognate area with a professor from the Documentary Film Program or another program. May be repeated for credit for a maximum of 9 hours.

**DOC 755. Entrepreneurship Education in Nonfiction Filmmaking. (3 h)**

This course will provide students with the knowledge and skills to help them create their own creative arts venture and help them design and teach a course in entrepreneurship in the creative arts, particularly digital media and non-fiction filmmaking.

**DOC 764. Individual Study. (1-3 h)**

For students who wish to perform independent study in a cognate area with a professor from the Documentary Film Program or another program. May be repeated for credit for a maximum of 9 hours.

**DOC 766. Teaching Practicum. (3 h)**

Students work closely with Documentary Film program faculty during the teaching of an undergraduate course. Students participate in the design and development of course material and observe classroom and organizational aspects of teaching in an apprenticeship role.

**DOC 780. Special Topics. (3 h)**

Intensive study of selected topics in documentary film. Topics may be drawn from any content area of documentary studies and production. May be repeated for credit for a maximum of 6 hours.

## Education (EDU)

**EDU 601. Microcomputer and Audiovisual Literacy. (3 h)**

Introduction to microcomputers for educators and other users, emphasizing familiarity with computers, use and evaluation of software, and elementary programming skills. Experience with audiovisual materials and techniques is included.

**EDU 602. Production of Instructional Materials. (3 h)**

Methods of producing instructional materials and other technological techniques. P-EDU 601 and senior or graduate standing.

**EDU 603. History of Western Education. (3 h)**

Educational theory and practice from ancient times through the modern period, including American education.

**EDU 604. Social Justice Issues in Educ. (3 h)**

This course facilitates exploration of issues of social justice and schooling from both theoretical and practical perspectives. It includes a focus on multicultural education, global awareness, issues of equity in school funding, urban and rural education, poverty, and marginalized populations.

**EDU 605. The Sociology of Education. (3 h)**

Study of contemporary educational institutions. Examines such issues as school desegregation, schooling and social mobility, gender equity, and multiculturalism.



**EDU 606. Studies in the History and Philosophy of Education. (3 h)**

Study of selected historical eras, influential thinkers, or crucial problems in education. Topics announced annually.

**EDU 610. Race, Class, and Gender in a Color-blind Society. (3 h)**

Examines issues surrounding race, class, and gender in the U.S. Topics include income and wealth, theories of discrimination, public education, gender bias, and patterns of occupational and industrial segregation.

**EDU 612. Teaching Children with Special Needs. (3 h)**

Survey of the various types of learning problems commonly found in elementary children. Students observe exemplary programs, tutor children with special needs, and attend seminars on effective instructional techniques.

**EDU 613. Human Growth and Development. (3 h)**

Theories of childhood and adolescent development, their relation to empirical research, and their educational implications. Consideration of the relation to learning of physical, intellectual, emotional, social, and moral development in childhood and adolescence.

**EDU 614L. Elementary Teaching Rounds. (2 h)**

Involves practical experiences in elementary classrooms with focus on pedagogy and content. Weekly public school experience and seminar. Pass/Fail.

**EDU 637. TESOL Linguistics. (3 h)**

An introduction to the theoretical and practical linguistics resources and skills for teaching English to speakers of other languages (TESOL) within the US or abroad.

**EDU 641. Teaching Elementary Literacy. (3 h)**

Methods and materials for implementing research-based strategies for teaching and assessing reading, writing, listening and speaking in grades K-6.

**EDU 642. Teaching Elementary Social Studies. (3 h)**

Methods and materials for teaching K-6 social, studies, including adaptations for diverse and exceptional learners. Also includes experience in diverse elementary classrooms.

**EDU 643. Teaching Elementary STEM (Science, Technology, Engineering, Mathematics). (3 h)**

Methods and materials for teaching STEM subjects in elementary schools, emphasizing inquiry teaching and learning, and including adaptations for diverse and exceptional learners.

**EDU 650L. Student Teaching: Elementary. (9 h)**

Supervised teaching experience in grades K-6. Full-time. Service Learning. Satisfactory/Unsatisfactory.

**EDU 651. Adolescent Psychology. (4 h)**

Introduction to theories of adolescent psychology as related to teaching and counseling in various settings. Readings emphasize researchers' suggestions for parenting, teaching, and counseling adolescents between the ages of 13 and 19.

**EDU 654. Content Pedagogy. (3 h)**

Methods, materials, and techniques used in teaching particular secondary subjects (English, mathematics, science, second languages, social studies).

**EDU 654L. Content Pedagogy Rounds. (2 h)**

Practical experiences in classrooms with focus on pedagogy and content. Weekly public school experience and seminar. Satisfactory/Unsatisfactory.

**EDU 655. Professional Seminar: Elementary. (3 h)**

Analysis and discussion of problems and issues in elementary school teaching. Includes examination of research and best practice strategies in curriculum, instruction, assessment, diverse learners, classroom management and leadership. Satisfactory/Unsatisfactory.

**EDU 661. Foundations of Education. (3 h)**

Philosophical, historical, and sociological foundations of education, including analysis of contemporary issues and problems.

**EDU 664L. Student Teaching Internship. (9 h)**

Supervised teaching experience in grades 9-12 (K-12 for foreign language). Full-time, 15-week field experience. Includes a weekly on-campus seminar. Satisfactory/Unsatisfactory.

**EDU 665. Professional Development Seminars. (3 h)**

Analysis and discussion of problems and issues in secondary school teaching. Examination of research and practice-based strategies. Pass/Fail only.

**EDU 668. Professional Experience in Education. (3 h)**

This course offers students a placement in an educational setting under the supervision of a professional mentor. During this internship, students examine a critical topic in a local school, a community agency, a nonprofit organization, or other educational setting.

**EDU 674. Student Teaching Seminar. (1.5 h)**

Analysis and discussion of practical problems and issues in the teaching of particular secondary subjects (English, mathematics, science, second languages, social studies). Emphasis is on the application of contemporary instructional methods and materials. Includes prior (intercession) 20 hours field experience requirement.

**EDU 677. Literacy in the 21st Century. (3 h)**

This course examines the impact of emerging literacy trends on the 21st Century students in a digital global world. There is specific focus on engaging reluctant and struggling readers.

**EDU 681. Special Needs Seminar. (1 h)**

Analysis and discussion of practical problems and issues in the teaching of special needs students in the secondary classroom. Topics include classroom management, reading and writing in the content area, inclusion, and evaluation. Satisfactory/Unsatisfactory.

**EDU 682. Reading and Writing in the Content Areas. (2 h)**

Survey of methods for teaching reading and writing to help students learn in the various content areas, and of techniques for adapting instruction to the literacy levels of students.

**EDU 683. Classroom Management Seminar. (1 h)**

Examination of research and practice-based strategies for secondary school classroom management and discipline. Satisfactory/Unsatisfactory.

**EDU 684. Creative Research Methodologies. (2 h)**

Investigation of source materials, printed and manuscript, and research methods which are applied to creative classroom experiences and the preparation of research papers in literature and social studies.

**EDU 685. Diversity Seminar. (1 h)**

Exploration of multi-cultural issues and relevant Spanish language and cultural teaching practices essential for classroom communication. Satisfactory/Unsatisfactory.

**EDU 687. Tutoring Basic Writing. (2 h)**

Review of recent writing theory applicable to teaching basic writers (including the learning disabled and non-native speakers). Special attention to invention strategies and heuristic techniques. Includes experience with tutoring in the Writing Center. (Credit not allowed for both EDU 387 and ENG 387.)

**EDU 688. Writing Pedagogy. (3 h)**

This course blends theory and practice, providing students from all content areas with a foundational understanding of writing pedagogy methods and approaches. Topics of study will include writing across the curriculum, writing research and writing assessment.

**EDU 690. Methods and Materials for Teaching Foreign Language. (3 h)**

Survey of the basic materials, methods, and techniques of teaching foreign languages in the elementary and middle grades. Emphasis is on issues and problems involved in planning and implementing effective second language programs in grades K-6. Spring only.

**EDU 693. Individual Study. (1-3 h)**

A project in an area of study not otherwise available in the department; permitted upon departmental approval of petition presented by a qualified student. May be repeated for credit.

**EDU 695. Teaching Diverse Learners. (3 h)**

This course addresses diversity in the classroom, particularly the needs of English Language Learners (ELL) and Exceptional Children (EC). It examines differentiated instruction with appropriate instructional and behavioral strategies to meet the needs of all students.

**EDU 698. Seminar in Secondary Education. (1 h)**

Investigation of the issues that form the context for teaching in secondary schools.

**EDU 705. Sociology of Education. (3 h)**

Study of contemporary society and education, including goals and values, institutional culture, and the teaching/learning process.

**EDU 707. Educational Policy & Practice. (3 h)**

Examination of the impact of race, ethnicity, and social class on educational achievement and attainment, including consideration of philosophical, historical, and sociological issues.

**EDU 708. School and Society. (3 h)**

Study of continuity and change in educational institutions, including analysis of teachers, students, curriculum, assessment and evaluation, and contemporary problems and reform movements.

**EDU 711. Reading Theory and Practice. (3 h)**

Study of current reading theory and considerations of its application in the teaching of reading, grades K-12.

**EDU 712. Learning & Cognitive Science. (3 h)**

Examination of patterns of human development, and theories and principles of cognition applied to teaching and learning.

**EDU 713. Classroom Climate: Classroom Management and Conflict Resolution. (3 h)**

This course focuses on the development and maintenance of a safe, orderly, and respectful classroom environment in conjunction with advanced pedagogical strategies. Students learn classroom management and conflict resolution techniques while considering their own teaching practices.

**EDU 714. Advanced Content Pedagogy. (3 h)**

This course assists students in developing skills for content-specific teaching of critical thinking and problem solving while building upon existing pedagogical content knowledge through collaboration that is rooted in current practice, and addressing state and national standards.

**EDU 715. Action Research. (3 h)**

Individual planning for action research study on a specific pedagogical topic in a school setting. Includes definition of research problem, literature review, and proposal for collection of field data, and reporting of results.

**EDU 716. Professional Growth Seminar. (3 h)**

Students will provide reflections on their teaching experiences, report the results of their action research, and define their professional goals.

**EDU 717. Instructional Design, Assessment and Technology. (3 h)**

Introduction to contemporary technologies and their applications for supporting instruction, assessment, professional practice, and school leadership.

**EDU 718. Adv Multimedia Tech in Educ. (3 h)**

This course develops advanced technology skills and knowledge of how to incorporate technology tools into pedagogical practice through a variety of assignments including an implementation project.

**EDU 721. Educational Research. (3 h)**

Theory, construction, and procedures of empirical research on teaching and learning. Analysis and evaluation of research studies.

**EDU 723. Educational Statistics. (3 h)**

Descriptive, inferential, and nonparametric statistical procedures involved in educational research. Computer methods for statistical analysis.

**EDU 725. Action Research II. (1 h)**

Reporting of results of action research study on pedagogical topic. Includes oral and written presentations.

**EDU 730L. Service Learning: Tutoring. (1 h)**

Practical experiences in classrooms with focus on tutoring and assisting with preparation for standardized testing. Includes field work and reflection. Pass/Fail only.

**EDU 731. Foundations of Curriculum Development. (3 h)**

Philosophical, psychological, and social influences on the school curriculum. Examination of both theoretical and practical curriculum patterns for the modern school. Processes of curriculum development, including the leadership function of administration and research.

**EDU 733. Supervision of Instruction. (3 h)**

Analysis of various techniques of supervision: orientation of teachers, in-service education, classroom observation, individual follow-up conferences, ways to evaluate instruction, and methods for initiating changes.

**EDU 735. Assessment of Teaching and Learning. (3 h)**

This course focuses on the assessment of learning from a theoretical and practical perspective. It includes an understanding of formative and summative assessments, traditional and non-traditional assessments, standardized testing, and the interpretation and application of test data.

**EDU 747. Research and Trends in the Teaching of Foreign Languages. (3 h)**

Study of current trends and issues in foreign language education. Research topics include language and linguistics, culture, and technology.

**EDU 751. Adolescent Psychology. (3 h)**

Introduction to theories of adolescent psychology as related to teaching and counseling in various settings. Readings emphasize researchers' suggestions for parenting, teaching, and counseling adolescents between the ages of 13 and 19.

**EDU 758. Studies in Educational Leadership. (3 h)**

Examination of contemporary leadership theory and its various applications in education.

**EDU 764. Seminar in Curriculum and Instruction. (3 h)**

Exploration of special topics in the field of curriculum and instruction.

**EDU 781. Methodology and Research. (3 h)**

Advanced study of the methods and materials of a specific discipline (English, French, Spanish, social studies, mathematics, science) in the curriculum with special attention directed to the basic research in the discipline. Includes 20 hours field experience/project.

**EDU 783. Readings and Research in Education. (1-3 h)**

Independent study and research on topics relevant to the student's field of concentration which may include a special reading program in an area not covered by other courses or a special research project. Supervision by faculty members. Hours of credit to be determined prior to registration.

**EDU 784. Research in Writing. (3 h)**

Investigation of selected topics related to the writing process.

**EDU 785. The Teaching of Writing. (3 h)**

Examination of the theories and methods of instruction of writing.

**EDU 787. Teaching Advanced Placement. (2, 3 h)**

An investigation of the content of and the pedagogy appropriate to advanced placement courses in the various disciplines. Summer only.

**EDU 788. Teaching Foreign Languages in the Elementary Grades. (2 h)**

Intensive period of observation and instruction in an elementary school setting with a foreign language specialist. Methods for development of listening, speaking, reading, writing, and cultural awareness using content-based instruction and thematic units.

## English (ENG)

**ENG 601. Individual Authors. (3 h)**

Study of selected work from an important American or British author. Staff.

**ENG 602. Ideas in Literature. (3 h)**

Study of a significant literary theme in selected works. Staff.

**ENG 604. History of the English Language. (3 h)**

Survey of the development of English syntax, morphology, and phonology from Old English to the present, with attention to vocabulary growth. Overing.

**ENG 605. Old English Language and Literature. (3 h)**

Introduction to the Old English language and a study of the historical and cultural background of Old English literature, including Anglo-Saxon and Viking art, runes, and Scandinavian mythology. Readings from Beowulf and selected poems and prose. Overing.

**ENG 606. Sp Top in Rhetoric and Writing. (1.5, 3 h)**

Study of significant rhetorical or writing theories and practices focused on one area of study.

**ENG 608. Beowulf. (3 h)**

This course offers an intensive study of the poem, with emphasis on language, translation skills and critical contexts.

**ENG 609. Modern English Grammar. (3 h)**

A linguistics approach to grammar study. Includes a critical exploration of issues such as grammatical change and variation, the origins and effects of grammar prescriptions/proscriptions, the place of grammar instruction in education, and the politics of language authority.

**ENG 610. The Medieval World. (3 h)**

ENG 610 The Medieval World. (3h) Examines theological, philosophical and cultural assumptions of the Middle Ages through the reading of primary texts. Topics include Christian providential history, drama, devotional literature, the Franciscan controversy, domestic life and Arthurian romance.

**ENG 611. The Legend of Arthur. (3 h)**

The origin and development of the Arthurian legend in France and England with emphasis on the works of Chretien de Troyes and Sir Thomas Malory. Sigal.

**ENG 612. Medieval Poetry. (3 h)**

The origin and development of poetic genres and lyric forms of Middle English. Sigal.

**ENG 613. The Roots of Song. (3 h)**

Interdisciplinary investigation of poetry and song in the Middle Ages and early Renaissance. Study of the evolution of poetic and musical genres and styles, both sacred and secular. Students must complete a project or projects on the technical or theoretical aspects of early song.

**ENG 615. Chaucer. (3 h)**

Emphasis on The Canterbury Tales and Troilus and Criseyde, with some attention to minor poems. Consideration of literary, social, religious, and philosophical background. Sigal.

**ENG 619. Virgil and His English Legacy. (3 h)**

Study of Virgil's Eclogues, Georgics, and selected passages of the Aeneid, and their influence on English literature, using translations and original works by writers of the sixteenth through the eighteenth centuries, including Spenser, Marlowe, Milton, Dryden, and Pope. Knowledge of Latin not required. Ettin.

**ENG 620. British Drama to 1642. (3 h)**

British drama from its beginnings to 1642, exclusive of Shakespeare. Representative cycle plays, moralities, Elizabethan and Jacobean tragedies, comedies, and tragicomedies. Staff.

**ENG 623. Shakespeare. (3 h)**

Thirteen representative plays illustrating Shakespeare's development as a poet and dramatist. Valbuena.

**ENG 625. Sixteenth-Century British Literature. (3 h)**

Concentration on the poetry of Spenser, Sidney, Shakespeare, Wyatt, and Drayton, with particular attention to the sonnets and the Faerie Queene. Staff.

**ENG 626. Studies in Renaissance Literature. (3 h)**

Selected topics in Renaissance literature. Consideration of texts and their cultural background. Staff.

**ENG 627. Milton. (3 h)**

The poetry and selected prose of John Milton with emphasis on Paradise Lost. Milton.

**ENG 628. Seventeenth-Century British Literature. (3 h)**

Poetry of Donne, Herbert, Vaughan, Marvel, Crashaw, prose of Bacon, Burton, Browne, Walton. Consideration of religious, political, and scientific backgrounds. Staff.

**ENG 630. Restoration and Eighteenth Century British Literature. (3 h)**

ENG 630 Restoration and 18th Century British Literature. (3h) Representative poetry and prose, exclusive of the novel, drawn from Addison, Steele, Defoe, Swift, Pope, Johnson, and Boswell. Consideration of cultural backgrounds and significant literary trends.

**ENG 633. Jane Austen. (3 h)**

An intensive study of the works of the British novelist Jane Austen, and her cultural contexts.

**ENG 635. Eighteenth-Century British Fiction. (3 h)**

Primarily the fiction of Defoe, Richardson, Fielding, Smollett, Sterne, and Austen. Staff.

**ENG 636. Restoration and Eighteenth-Century British Drama. (3 h)**

British drama from 1660 to 1780, including representative plays by Dryden, Etherege, Wycherley, Congreve, Goldsmith, and Sheridan. Kairoff.

**ENG 637. Studies in Eighteenth-Century British Literature. (3 h)**

Selected topics in eighteenth-century literature. Consideration of texts and their cultural background. Staff.

**ENG 638. Studies in Gender and Literature. (3 h)**

Thematic and/or theoretical approaches to the study of gender in literature.

**ENG 639. Studies in Sexuality and Literature. (3 h)**

Thematic and/or theoretical approaches to sexuality within literary studies.

**ENG 640. Studies in Women & Literature. (3 h)**

ENG 640 Studies in Women and Literature. (3h) Women writers in Society.

**ENG 641. Literature and the Environment. (3 h)**

ENG 641 Literature and the Environment This course studies the relationship between environmental experience and literary representation.

**ENG 642. Writing Center Pedagogy. (3 h)**

Introduction to composition pedagogy and writing center theory and practices, with special emphasis on one-to-one and small group peer tutoring techniques.

**ENG 644. Studies in Poetry. (3 h)**

Selected topics in poetry.

**ENG 645. Studies in Fiction. (3 h)**

Selected topics in fiction.

**ENG 646. Studies in Theatre. (3 h)**

Selected topics in theatre.

**ENG 647. Internship in the Major. (1.5 h)**

Internship that involves both hands-on experience and academic study. Students will partner with a literature faculty member to integrate work in the community and engagement with his or her academic plan of study.

**ENG 648. English Studies and the Professions. (1.5 h)**

A practicum course focused on career design and career planning, specific to career options in humanities fields. The course will broaden awareness of career opportunities available to English graduate students. Pass-fail only. Cannot be repeated.

**ENG 650. British Romantic Poets. (3 h)**

A review of the beginnings of Romanticism in British literature, followed by a study of Wordsworth, Coleridge, Byron, Keats, and Shelley; collateral reading in the prose of the period. Wilson.

**ENG 651. Studies in Romanticism. (3 h)**

Selected topics in European and/or American Romanticism with a focus on comparative, interdisciplinary, and theoretical approaches to literature.

**ENG 653. Nineteenth-Century British Fiction. (3 h)**

Representative major works by Dickens, Eliot, Thackeray, Hardy, the Brontes, and others. Staff.

**ENG 654. Victorian Poetry. (3 h)**

A study of the Brownings, Tennyson, Hopkins, and Arnold or another Victorian poet. Staff.

**ENG 656. Literature of the Caribbean. (3 h)**

ENG 656 Literature of the Caribbean. (3h) Readings include significant works by authors from the Caribbean and authors writing about the Caribbean. Critical, historical, and cultural approaches are emphasized. All texts are in English.

**ENG 657. Studies in Chicano/a Lit.. (3 h)**

Writings by Americans of Mexican descent in relation to politics and history. Readings in literature, literary criticism, and socio-cultural analysis.

**ENG 658. Postcolonial Literature. (3 h)**

A survey of representative examples of postcolonial literature from geographically diverse writers, emphasizing issues of politics, nationalism, gender, and class.

**ENG 659. Studies in Postcolonial Literature. (3 h)**

Examination of themes and issues in postcolonial literature, such as: globalization, postcolonialism and hybridity, feminism, nationalism, ethnic and religious conflict, the impact of the Cold War, and race and class.

**ENG 660. Studies in Victorian Literature. (3 h)**

Selected topics such as development of genres, major authors and texts, cultural influences. Reading in poetry, fiction, autobiography, and other prose. Staff.

**ENG 661. Literature and Science. (3 h)**

Literature of and about science. Topics vary and may include literature and medicine, the two-culture debate, poetry and science, nature in literature, the body in literature.

**ENG 662. Irish Literature in the Twentieth-Century. (3 h)**

A study of modern Irish literature from the writers of the Irish Literary Renaissance to contemporary writers. Course consists of overviews of the period as well as specific considerations of genre and of individual writers.

**ENG 663. Studies in Modernism. (3 h)**

Selected issues in Modernism. Interdisciplinary, comparative, and theoretical approaches to works and authors. Staff.

**ENG 664. Studies in Literary Criticism. (3 h)**

Consideration of certain figures and schools of thought significant in the history of literary criticism.

**ENG 665. Twentieth-Century British Fiction. (3 h)**

ENG 665 20th-Century British Fiction. (3h) A study of Conrad, Ford, Forster, Joyce, Lawrence, Woolf and later British writers, with attention to their social and intellectual backgrounds.

**ENG 666. James Joyce. (3 h)**

The major works by Joyce, with an emphasis on *Ulysses*.

**ENG 667. Twentieth-Century English Poetry. (3 h)**

A study of twentieth-century poets of the English language, exclusive of the U.S. Poets will be read in relation to the literary and social history of the period. Kuberski.

**ENG 668. Studies in Irish Literature. (3 h)**

The development of Irish literature from the eighteenth century through the early twentieth century in historical perspective, with attention to issues of linguistic and national identity.

**ENG 669. Modern Drama. (3 h)**

Main currents in modern drama from nineteenth century realism and naturalism through symbolism and expressionism. After an introduction to European precursors, the course focuses on representative plays by Wilde, Shaw, Synge, Yeats, O'Neill, Eliot, Hellman, Wilder, Williams, Hansberry, and Miller. Staff.



**ENG 670. American Literature to 1820. (3 h)**

Origins and development of American literature and thought in representative writing of the Colonial, Revolutionary, and Federal periods.

**ENG 671. American Ethnic Literature. (3 h)**

Introduction to the field of American Ethnic literature, with special emphasis on post World War II formations of ethnic culture: Asian American, Native American, African American, Latino, and Jewish American. The course highlights issues, themes, and stylistic innovations particular to each ethnic group and examines currents in the still developing American culture. Franco.

**ENG 672. American Romanticism. (3 h)**

Studies of Romanticism in American literature. Focus varies by topic and genre, to include such writers as Emerson, Thoreau, Hawthorne, Melville, Whitman, and Dickinson. Moss.

**ENG 673. Literature and Film. (3 h)**

Selected topics in the relationship between literature and film, such as adaptations of literary works, the study of narrative, and the development of literary and cinematic genres. Staff.

**ENG 674. American Fiction before 1865. (3 h)**

Novels and short fiction by such writers as Charles Brockden Brown, James Fenimore Cooper, Washington Irving, Edgar Allan Poe, Nathaniel Hawthorne, Herman Melville, Harriet Beecher Stowe, and Rebecca Harding Davis.

**ENG 675. American Drama. (3 h)**

A historical overview of drama in America, covering such playwrights as Boucicault, O'Neill, Hellman, Wilder, Williams, Inge, Miller, Hansberry, Albee, Shepard, Norman, Mamet, and Wilson. Staff.

**ENG 676. American Poetry before 1900. (3 h)**

Readings and critical analysis of American poetry from its beginnings, including Bradstreet, Emerson, Longfellow, Melville, and Poe, with particular emphasis on Whitman and Dickinson. Wilson.

**ENG 677. American Jewish Literature. (3 h)**

Survey of writings on Jewish topics or experiences by American Jewish writers. Explores cultural and generational conflicts, responses to social change, the impact of the Shoah (Holocaust) on American Jews, and the challenges of language and form posed by Jewish and non-Jewish artistic traditions. Staff.

**ENG 678. Literature of the American South. (3 h)**

Study of Southern literature from its beginnings to the present, with emphasis upon such major writers as Tate, Warren, Faulkner, O'Connor, Welty, and Styron. Moss.

**ENG 679. Literary Forms of the American Personal Narrative. (3 h)**

Reading and critical analysis of autobiographical texts in which the ideas, style, and point of view of the writer are examined to demonstrate how these works contribute to an understanding of pluralism in American culture. Representative authors include Douglass, Brent, Hurston, Wright, Kingston, Angelou, Wideman, Sartre, Hellman, and Dillard. Staff.

**ENG 680. American Fiction 1865 - 1915. (3 h)**

ENG 680 American Fiction from 1865-1915. (3h) Study on such writers as Twain, James, Howells, Crane, Dreiser, Wharton, and Cather.

**ENG 681. Studies in African American Literature. (3 h)**

Reading and critical analysis of selected fiction, poetry, drama, and other writings by American authors of African descent.

**ENG 682. Modern American Fiction 1915 to 1965. (3 h)**

Includes such writers as Cather, Lewis, Hemingway, Fitzgerald, Faulkner, Dos Passos, Wolfe, Baldwin, Ellison, Agee, O'Connor, Styron, Percy, and Pynchon. Maine.

**ENG 683. Theory and Practice of Poetry Writing. (3 h)**

Emphasis on reading and discussing student poems in terms of craftsmanship and general principles. Staff.

**ENG 684. Playwriting. (3 h)**

ENG 648 Playwriting (3h) Examines the elements of dramatic structure and their representations in a variety of dramatic writings. Explores the fundamentals of play writing through a series of writing exercises.

**ENG 685. Twentieth-Century American Poetry. (3 h)**

Readings of modern American poetry in relation to the literary and social history of the period. Kuberski.

**ENG 686. Directed Reading. (1-3 h)**

A tutorial in an area of study not otherwise provided by the department; granted upon departmental approval of petition presented by a qualified student. Staff.

**ENG 687. African-American Fiction. (3 h)**

Selected topics in the development of fiction by American writers of African descent.

**ENG 689. African-American Poetry. (3 h)**

Readings of works by American poets of African descent in theoretical, critical, and historical contexts.

**ENG 690. The Structure of English. (3 h)**

Introduction to the principles and techniques of modern linguistics applied to contemporary American English. Overing.

**ENG 691. Studies in Postmodernism. (3 h)**

Interdisciplinary, comparative, and theoretical approaches to works and authors. Staff.

**ENG 692. Magazine Writing. (3 h)****ENG 693. Multicultural American Drama. (3 h)**

Examines the dramatic works of playwrights from various racial and ethnic communities such as Asian American, African American, and Latino. Includes consideration of issues, themes, style and form.

**ENG 694. Contemporary Drama. (3 h)**

Considers experiments in form and substance in plays from Godot to the present. Readings cover such playwrights as Beckett, Osborne, Pinter, Stoppard, Churchill, Wertebaker, Albee, Shepard, Mamet, Wilson, Soyinka, and Fugard. Staff.

**ENG 695. Contemporary American Lit. (3 h)**

Study of post-World War II American poetry and fiction by which such writers as Bellow, Gass, Barth, Pynchon, Morrison, Ashbery, Ammons, Bishop, and Rich. Hans.

**ENG 696. Contemporary British Fiction. (3 h)**

Study of the British novel and short story, with particular focus on the multicultural aspects of British life, including works by Rushdie, Amis, Winterson, and Ishiguro. Klein.

**ENG 697. Creative Nonfiction. (3 h)**

A writing-intensive course exploring the practice and theory of creative nonfiction, a genre that encompasses memoir, the personal essay, travel writing, and science writing.

**ENG 698. Advanced Fiction Writing. (3 h)**

Primarily a short story workshop, with class discussion on issues of craft, revision, and selected published stories.

**ENG 699. Practice in Rhetoric & Writing. (3 h)**

ENG 699 Practice in Rhetoric and Writing. (3h) Training and practice in writing expository prose. Students study the use of rhetoric and frame arguments and marshal evidence, then earn to practice these skills in their own writing of expository prose.

**ENG 700. Teaching Internship. (1.5 h)**

An internship for the observation and practice of undergraduate pedagogy, placing an MA student into a core literature, writing, or creative writing course taught by a permanent faculty member, typically in the first semester of the student's second year. Arranged by permission or invitation of the supervising faculty member. Must be taken as an overload in addition to the coursework for the degree. May be repeated for credit for a maximum of 3 hours.

**ENG 701. Individual Authors. (3 h)**

Study of selected works from an important American, English, or Global Anglophone author.

**ENG 702. Ideas in Literature. (3 h)**

Study of a significant literary theme in selected works. May be repeated for credit if topic varies.

**ENG 710. Early Medieval Narrative. (3 h)**

A variety of forms of early medieval narrative (history, saga, chronicle, poetry, hagiography), with a focus on issues of genre and narrative form, connections between story and history, and the text's relation to the culture that produced it. Emphasis is on interdisciplinary viewpoints (artistic, archaeological, geographic), and on contemporary narrative theory.

**ENG 711. Arthurian Legend. (3 h)**

Emphasis is on the origin and developments of the Arthurian legend in England and France, with primary focus on Malory's *Le Morte d'Arthur*. Attention to social and intellectual backgrounds. Sigal.

**ENG 712. Studies in Medieval Literature: Romance and Identity. (3 h)**

A diverse corpus of medieval poetry, both lyric and narrative, is explored in an effort to trace the origin and evolution of the idea and meaning of "romance," a term signifying, for the medieval audience, narrative poetry in the vernacular, and, for our purposes, that uniquely new concept of ennobling love that emerged in the twelfth century. Sigal.

**ENG 715. Studies in Chaucer. (3 h)**

Emphasis on selected *Canterbury Tales*, *Troilus and Criseyde*, and the longer minor works, with attention to social, critical, and intellectual background. Lectures, reports, discussions, and a critical paper. Sigal.

**ENG 720. Renaissance Drama. (3 h)**

Using a historical approach, this seminar examines the relationship between the theater as an institution and centers of authority during the Tudor and Stuart periods. The plays—tragedies, comedies, tragicomedies—are approached as the products of a dynamic exchange between individual authors and the larger political and social concerns of the period. Staff.

**ENG 721. Studies in Spenser. (3 h)**

Emphasis on *The Faerie Queene*; attention to the minor works; intellectual and critical background. Lectures, discussions, and class papers. Ettin.

**ENG 722. Studies in 16th C. British Lit. (3 h)**

Introduction to critical and scholarly methodology for the study of the literature; particular emphasis on Spenser's *Faerie Queene* and Sidney's *Arcadia*. Ettin.

**ENG 723. Studies in Shakespeare. (3 h)**

Representative text from all genres, examined in light of critical methodologies in the field of Shakespeare studies. Emphasis is on reading primary sources as well as on discussion of the impact that historical, cultural, and religious developments had on Shakespeare, the theater, and the thematics of his plays. Valbuena.

**ENG 725. Studies in 17th Cent Brit Lit. (3 h)**

Non-dramatic literature of the seventeenth century, exclusive of Milton. Emphasis on selected major writers. Lectures, discussions, and presentation of studies by members of the class. Staff.

**ENG 727. Studies in Seventeenth-Century British Literature: Primarily Milton. (3 h)**

The work of John Milton, primarily *Paradise Lost*, within its cultural environment. Some attention to connections between Milton's writings and that of his contemporaries. Staff.

**ENG 729. Early Modern Literature. (3 h)**

Introduction to Early Modern literature, spanning a variety of genres, periods, and regions and including historical contexts, critical methodologies, and secondary criticism in Early Modern studies.

**ENG 733. 18th Century British Fiction. (3 h)**

A study of two major British novelists of the eighteenth century. Lectures, reports, critical papers. Authors for study chosen from the following: Defoe, Richardson, Fielding, Smollet, and Austen. Staff.

**ENG 737. Studies in Restoration and Eighteenth Century British Literature. (3 h)**

Selected topics in Restoration and eighteenth century literature. Consideration of texts and their cultural background. Kairoff.

**ENG 740. Studies in Gender and Literature. (3 h)**

An examination of selected writers and/or theoretical questions focusing on issues of gender.

**ENG 741. Studies in Sexuality and Literature. (3 h)**

Thematic and/or theoretical approaches to sexuality within literary studies.

**ENG 743. Nineteenth-Century British Fiction. (3 h)**

Study of one or more major British novelists of the nineteenth century. Lectures, reports, discussions, and a critical paper. Authors for study chosen from the following: Austen, Dickens, Thackeray, Eliot, and Hardy. Staff.

**ENG 745. English Poetry of the Nineteenth and Twentieth Centuries. (3 h)**

Study of several British poets chosen from the major Romantics, Tennyson, Browning, Hardy and Yeats. Wilson.

**ENG 746. Studies in British Romanticism. (3 h)**

Examination of major writers, topics, and/or theoretical issues from the late eighteenth and early nineteenth centuries. Wilson.

**ENG 757. American Poetry. (3 h)**

Studies of the poetry and poetic theory of three major American writers in the nineteenth and twentieth centuries. Writers chosen from the following: Whitman, Dickinson, Frost, Eliot, Stevens, or Williams. Discussions, reports, and a critical paper. Staff.

**ENG 758. Studies in Modern Poetry. (3 h)**

Theoretical issues and themes in twentieth century poetry. Kuberski.

**ENG 759. Studies in Postcolonial Literature. (3 h)**

Examination of themes and issues in postcolonial literature and/or theory, such as: globalization, identity and hybridity, feminism, nationalism ethnic and religious conflict, the impact of neo-imperialism and economic policy, and race and class.

**ENG 760. Studies in Victorian Lit.. (3 h)**

ENG 760 Studies in Victorian Literature (3h). Selected topics such as development of genres, major authors and texts and cultural influences of Victorian Literature. Readings in poetry, fiction and autobiography, and other prose.

**ENG 763. Studies in Modernism. (3 h)**

ENG 763 Studies in Modernism This course will examine elected issues in Modernism, from interdisciplinary, comparative, and theoretical approaches.

**ENG 765. Literary Criticism. (3 h)**

Review of historically significant problems in literary criticism, followed by study of the principal schools of twentieth century critical thought. Lectures, preports, discussions, and a paper of criticism. Staff.

**ENG 766. Studies in Twentieth Century British Literature. (3 h)**

Examination of major writers, topics and/or theoretical issues in twentieth-century British literature. In addition to fiction, the course will focus on drama, theory, prose readings, and poetry.

**ENG 767. Twentieth Century British Fiction. (3 h)**

Study of one or more of the major British novelists of the twentieth century. Authors chosen from among the following: Conrad, Ford, Forster, Joyce, Lawrence, or Woolf. Staff.

**ENG 768. Irish Literature. (3 h)**

Study of major themes, theories, individual authors, or periods, which might include discussions of mythology, folklore, landscape, poetics, narrative strategies, gender, and politics. Holdridge.

**ENG 770. Studies in American Litarture. (3 h)**

Introduction to studies in America literatures, spanning a variety of genres, periods, and regions (US, Black Atlantic, Caribbean, Central American, South American, and hemispheric literatures), including historical contexts, critical methodologies, and secondary criticism in the field.

**ENG 771. American Ethnic Literature. (3 h)**

Examination of how ethnic writers narrate cultural histories and respond to and represent the ambiguity of cultural location. Literary topics include slavery, exile, the Holocaust, immigration, assimilation, and versions of the American Dream.

**ENG 772. Studies in American Romanticism. (3 h)**

Writers of the mid-nineteenth century, including Emerson, Thoreau, Hawthorne, and Melville. Staff.

**ENG 774. American Fiction Before 1865. (3 h)**

A study of novels and short fiction by such writers as Charles Brockden Brown, James Fenimore Cooper, Washington Irving, Edgar Allan Poe, Nathaniel Hawthorne, Herman Melville, Harriet Beecher Stowe, and Rebecca Harding Davis.

**ENG 776. American Poetry Before 1900. (3 h)**

Close reading and critical analysis of selected American poets, such as Bryant, Longfellow, Poe, Emerson, Whitman, and Dickinson. Moss.

**ENG 779. Autobiographical Voices: Race, Gender, Self-Portraiture. (3 h)**

Using a historical and critical approach, this seminar examines autobiography as an activity which combines history, literary art, and self-revelation. Lectures, reports, discussions, a critical journal, a personal narrative, and a critical paper. Authors for study chosen from the following: Douglass, Brent, Hurston, Wright, Angelou, Crews, Dillard, Moody, Malcolm X, Kingston, Wideman, or Sarton. Staff.

**ENG 780. Studies in American Fiction from 1865 to 1915. (3 h)**

Study of the principal fiction of one or more major American writers of the late nineteenth and early twentieth centuries. Lectures, seminar reports, and a research paper. Authors for study chosen from the following: Twain, James, Howells, Adams, Crane, Dreiser, Wharton, or Cather. Maine.

**ENG 781. African-American Literature and the American Tradition. (3 h)**

Critical readings of selected works of major American writers of African descent within the contexts of the African-American and American literary and social traditions. Covers such genres as autobiography, fiction, drama, and poetry. Lectures, reports, discussions, and a critial paper. Staff.

**ENG 782. Studies in American Fiction from 1915 to 1965. (3 h)**

Study of the principal fiction or one or more major American writers of the twentieth century. Writers are chosen from the following: Cather, Lewis, Hemingway, Fitzgerald, Faulkner, Dos Passos, Wolfe, Baldwin, Ellison, Agee, O'Connor, Percy or Pynchon. Maine.

**ENG 783. Contemporary American Fiction. (3 h)**

Seminar devoted to the close study of some of the most important novels produced in the United States since World War II. Hans.

**ENG 784. Contemporary American Poetry. (3 h)**

Seminar devoted to the close study of some of the most important poems written in America since World War II. Hans.

**ENG 786. Directed Reading. (1-3 h)**

A tutorial in an area of study not otherwise provided by the department; granted upon departmental approval of petition presented by a qualified student. Staff.

**ENG 789. Linguistics in Literature. (3 h)**

Examination of theories of grammar and attitudes toward the English language reflected in the literature of selected periods. Overing.

**ENG 791. Thesis Research I. (1-9 h)**

May be repeated for credit. Satisfactory/Unsatisfactory.

**ENG 792. Thesis Research II. (1-9 h)**

May be repeated for credit. Satisfactory/Unsatisfactory.

## French (FRH)

**FRH 621. Introduction to Translation. (3 h)**

Introduces translation strategies through theory and practice. Emphasizes translation of a broad variety of texts, including different literary and journalistic modes. Attention is given to accuracy in vocabulary, structures, forms, and to cultural concerns.

**FRH 623. Advanced Grammar & Stylistics. (3 h)**

Review and application of grammatical structures for the refinement of writing techniques. Emphasizes the use of French in a variety of discourse types. Attention is given to accuracy and fluency of usage in the written language.

**FRH 629. Intro to Business French. (3 h)**

Introduction to the use of French in business. Emphasizes oral and written practices, reading, and French business culture, as well as a comprehensive analysis of different business topics and areas.

**FRH 630. French for Management. (3 h)**

Explores oral and written French communication and develops intercultural skills in areas such as human resources, entrepreneurship, and marketing through case studies and current events.

**FRH 643. Modern French. (3 h)**

Study of the features of contemporary French including colloquial French, contrasting grammar, vocabulary, and pronunciation with standard forms.

**FRH 645. Language and Society. (3 h)**

Introduces sociolinguistic issues relating to the French language and its role in societies around the world.

**FRH 660. Cinema and Society. (3 h)**

Study of French and Francophone cultures through cinema. Readings and films may include film as artifact, film theory, and film history.

**FRH 661. Special Topics in French and Francophone Film Studies. (3 h)**

In-depth study of particular aspects of French and/or francophone cinema. Topics may include film adaptations of literary works, cinematographic expressions of social or political issues, selected filmmakers, theories, genres, historical periods, or cinematographic trends. May be repeated for credit for a maximum of 6 hours when topics vary.

**FRH 663. Trends in French Poetry. (3 h)**

Study of the development of the poetic genre with analysis and interpretation of works from each period.

**FRH 664. French and Francophone Prose Fiction. (3 h)**

Broad survey of prose fiction in French, with critical study of representative works from a variety of periods.

**FRH 665. French and Francophone Drama. (3 h)**

Study of the chief trends in French dramatic art, with reading and discussion of representative plays from selected periods: Baroque, Classicism, and Romanticism, among others.

**FRH 670. Seminar in French and Francophone Studies. (3 h)**

In-depth study of particular aspects of selected literary and cultural works from different genres and/or periods. Topics vary from semester to semester. May be repeated for credit for a maximum of 6 hours when topics vary.

**FRH 674. Topics in French and Francophone Culture. (3 h)**

Study of selected topics in French and/ or francophone culture. Works will be drawn from different fields (sociology, politics, art, history, music, cinema) and may include journalistic texts, films, historical and other cultural documents. May be repeated for credit for a maximum of 6 hours when topics vary.

**FRH 675. Special Topics in French and Francophone Literature. (3 h)**

Selected themes and approaches to French literature transcending boundaries of time and genre. Topics to be chosen by staff in consultation with majors prior to the term the course is offered. May be repeated once for credit.

**FRH 681. French Individual Study. (1.5-3 h)**

May be repeated for credit. P-Permission of the department.

## Graduate (GRD)

**GRD 700. Independent Study. (1-9 h)**

This course allows an interested student to pursue a topic covered in another class in greater depth under the guidance of a faculty member. The faculty member will work with the student to clarify the expectations; usually the course requires a combination of extensive reading, tutorial sessions, and a written paper. May be repeated.

**GRD 701. Special Topics. (1-9 h)**

This course allows an interested student or students to pursue a topic covered in another class in greater depth under the guidance of a faculty member. The faculty member will work with the student or students to clarify the expectations; usually the course requires a combination of extensive reading, tutorial sessions, and a written paper. May be repeated for different topics.

**GRD 702. Internship. (1-9 h)**

The objective of this experiential course is to prepare graduate students to practice their biomedical science expertise within one of a variety of career settings. The course is appropriate for those seeking either a Master's or PhD in biomedical sciences, preparing the student for roles in pharmaceutical/biotech (research, safety, marketing), law and regulatory agencies, medical writing, science policy, and grants management, among others. Students should register for this course if their internship placement is located within the Wake Forest umbrella. Students with placement outside of the Wake Forest umbrella should register for GRAD 703. Credit hours may be adjusted based on the length of the internship. May be repeated. Satisfactory/Unsatisfactory.

**GRD 703. Internship. (1-9 h)**

The objective of this experiential course is to prepare graduate students to practice their biomedical science expertise within one of a variety of career settings. The course is appropriate for those seeking either a Master's or PhD in biomedical sciences, preparing the student for roles in pharmaceutical/biotech (research, safety, marketing), law and regulatory agencies, medical writing, science policy, and grants management, among others. Students should register for this course if their internship placement is located outside the Wake Forest umbrella. Students with placement inside of the Wake Forest umbrella should register for GRAD 702. Credit hours may be adjusted based on the length of the internship. May be repeated. Satisfactory/Unsatisfactory.

**GRD 704. Principles of Intellectual Property Development. (2 h)**

This course is specifically designed for late stage graduate students to supplement their scientific background with a greater understanding of intellectual property protection, commercialization, and start-up company formation. Numerous aspects of our knowledge-based economy will be covered including an overview of the diverse types of intellectual property protection available to protect inventions (with a focus on patents, ) the technology transfer process in an academic setting, a primer of company formation and organization, and an analysis of the different agreements (including Confidential Disclosure Agreements, Material Transfer Agreements and License Agreements) necessary to move a technology from the bench to the bedside.

**GRD 705. Commercializing Innovation. (3 h)**

This course will explore the processes that are involved from taking an interesting and innovative idea through successful commercial or organizational application - in going from why something is a promising innovation on to how to develop a potentially successful business. It will look at product and process innovation, as well as the increasingly important area of business model innovation. There will be strong emphasis on practical application, group work and learning from experience. Guest lecturers will be used to illuminate some of the key issues in the commercialization process. Typically offered in spring terms.

**GRD 706. Regulation and Reimbursement of Novel Drugs, Biologics, and Medical Devices. (3 h)**

This course is an overview of the key areas of strategic clinical development, Regulatory Affairs and the FDA-imposed regulations pertinent to the product lifecycle in the pharmaceutical, biologics, and medical device industries. The course also explores the basics of market access and reimbursement as a "second approval" prior to the product entering the market. The implications for available scientific and clinical evidence in light of market access issues will be discussed and linked back to the design of successful clinical development programs. Students will gain insight into the key elements of the regulatory process and market access in various health sector industries, governmental agencies and consultancies.



**GRD 707. Professional Responsibilities & Conduct I. (1 h)**

Students learn to identify general and discipline-specific professional norms and obligations for the responsible practice of science. Emphasizes development of professional decision-making skills. This course or equivalent is required for Reynolda campus Master's students who will be supported on federal grants. Pass/Fail.

**GRD 708. Communicating Science. (2 h)**

This course is meant to train students in the best practices of taking highly technically scientific content and translating into formats that can be more easily comprehended by non-scientists and laypersons. The course will rely heavily on student presentations, often of their own research, followed by constructive critique from other class members. Typically offered in the summer term.

**GRD 709. Scientific Outreach. (1 h)**

This course provides hands-on engagement with teaching and educational opportunities directed at the lay public or other, non-university groups. Planning outreach events and communicating scientific concepts to the lay public are essential skills for any scientist-in-training, especially those who may be involved in academic lecturing or public policy. The scope of such activities will derive from the scientific disciplines of the students involved, but will include activities involving the informal teaching of basic and translational science concepts in the biomedical sciences and other STEM-related disciplines. Examples of such engagement include K-12 school visits, involvement in public symposia related to science for lay audiences, or any similar activity performed under faculty guidance. May be repeated for credit not to exceed 6 hours each. Satisfactory/Unsatisfactory.

**GRD 710. Scientific Outreach. (1 h)**

This course provides hands-on engagement with teaching and educational opportunities directed at the lay public or other, non-university groups. Planning outreach events and communicating scientific concepts to the lay public are essential skills for any scientist-in-training, especially those who may be involved in academic lecturing or public policy. The scope of such activities will derive from the scientific disciplines of the students involved, but will include activities involving the informal teaching of basic and translational science concepts in the biomedical sciences and other STEM-related disciplines. Examples of such engagement include K-12 school visits, involvement in public symposia related to science for lay audiences, or any similar activity performed under faculty guidance. May be repeated for credit not to exceed 6 hours each. Satisfactory/Unsatisfactory.

**GRD 711. Introduction to College Teaching. (1 h)**

Prepares graduate teaching assistants for teaching roles. Coursework includes a 1-2 day orientation introducing students to the role and responsibility of being a teaching assistant, departmental orientation to teaching in the discipline, a series of educational workshops conducted by the Teaching and Learning Center, and classroom observation. Satisfactory/Unsatisfactory.

**GRD 712. Clinical Integrity and Professionalism. (2 h)**

This course offers foundational ethics and integrity training to Bowman Gray graduate students focused in pre-clinical studies. This course will utilize a combination of didactic presentations and small group, problem-based learning experiences to teach students methodology for addressing future ethical concerns in clinical and research practice. The course will provide an overview of the historical context and theoretical frameworks of biomedical ethics. Emphasis will be placed on the use of case studies to discuss topics including but not limited to: the doctor-patient relationship, professionalism, the principles of biomedical ethics, informed consent, privacy and confidentiality, medical research, social factors in healthcare, and ethical issues at the beginning and end of life. This course satisfies graduation requirements for ethics training for Bowman Gray students. Satisfactory/Unsatisfactory.

**GRD 713. Foundations of Scientific Integrity and Professionalism. (1 h)**

A short-course designed to offer foundational ethics and integrity training to incoming Bowman Gray graduate students. Key concepts will include introduction to key professional norms in science, including, but not limited to, responsible conduct of research, new professional expectations, as well as student life. An introduction to topics, that will be further explored using case-studies in GRAD 714, will include: plagiarism, animal & human subject research, record keeping, data management, grant writing, the student and advisor relationship, laboratory dynamics, and managing conflicts of interest. Typically offered immediately following fall orientation. Satisfactory/Unsatisfactory.

**GRD 714. Scientific Integrity and Professionalism. (1 h)**

A small-group, problem-based learning formatted course designed to teach discipline-specific and broad, professional norms and obligations for the ethical practice of science, primarily for first-year graduate students on the Bowman Gray campus. The content will present ethical dilemmas and promote professional behavior on, but not limited to, the responsible conduct of research and the current regulatory climate with emphasis on the underlying principles that shape these concepts. Topics will include plagiarism, animal & human subject research, record keeping, data management, grant writing, the student and advisor relationship, laboratory dynamics, and managing conflicts of interest. Typically offered weekly at 2-hour discussion sections during the spring term. This course satisfies graduation requirements for ethics training for Bowman Gray students. Satisfactory/Unsatisfactory.

**GRD 715. Career Planning in Biomedical Sciences. (1.5 h)**

A weekly seminar course, primarily for first-year graduate students on the Bowman Gray campus, in which invited alumni panelists share details on career options in the biomedical sciences, typically grouped by industry, highlighting a wide range of career paths. Speakers will share details from their own experiences in preparing for their chosen career paths, and may include: undergraduate college teaching, pharmaceutical research, law careers, medical writing, science policy, and grants management, among other careers. In addition to the panel discussions, students will have the opportunity to complete self-assessment exercises to help narrow their career focus, will begin to discuss best practices in resume, curriculum vitae, cover letter writing, and interviewing skills. Recommended for all students on the Bowman Gray campus. Typically offered in fall terms.

**GRD 716. Seminars in Professional Development. (1 h)**

A weekly seminar course, primarily for first-year graduate students on the Bowman Gray campus, in which invited speakers give presentations organized around offering students best practices in professional behaviors on topics, including: animal and human subjects research, record keeping, authorship, grant writing, preparing talks and posters, and managing conflicts of interest. Required for PhD students on the Bowman Gray campus; recommended for MS students on the Bowman Gray campus. Typically offered in spring terms.

**GRD 717. Career Planning for Graduate Students. (1 h)**

This course is designed to provide graduate students with experience in all three components of the career planning process: 1) self-assessment of work related values, interests, skills; 2) exploration and research of career options 3) development of job search materials including resumes, cover letters, and other relevant materials. Recommended for all students in the Reynolda Campus programs preferably in their first year. This will be offered in online format over half a semester to allow for self-guided investment in their own career plans. Satisfactory/Unsatisfactory.

**GRD 720. Topics in College-Level Teaching. (1-3 h)**

Students participate in the preparation and delivery of one or more lectures, homework assignments, and examinations, and facilitate small group learning sessions. Students attend at least two professional development workshops on a variety of aspects of the educational process. P-Successful completion of the first year of coursework in a biomedical graduate training program and POI. Satisfactory/Unsatisfactory.

**GRD 722. Teaching Skills and Strategies Seminar. (2 h)**

Designed to provide students with formal training and development in teaching strategies and teaching scholarship. A variety of theories and pedagogies are reviewed and discussed. Students receive some practical experience in developing and delivering instructional materials and assessment tools. Meets weekly for two hours throughout the spring semester.

**GRD 724. Biosafety in Research Laboratories. (3 h)**

This one-term course provides an overview of the types of biohazards that may be encountered while conducting scientific research, with emphasis on laboratories, and effective methods to minimize the risks associated with those hazards. P-At least one microbiology course and laboratory experience.

**GRD 725. Speaking with Confidence. (3 h)**

Introduction to logic and rhetoric as well as grammar, comprehension, idioms, pronunciation, and vocabulary. Focuses on increasing self-confidence to improve speaking abilities as well as future employment opportunities.

**GRD 726. Written English for the Professional Graduate. (3 h)**

Field-based seminar compares the barriers to market participation experienced by independent entrepreneurs cross-culturally. Free trade policies are contrasted with fair trade practices to determine why so many independent producers have trouble succeeding in a globalizing world.

## Health and Exercise Science (HES)

**HES 650. Human Physiology. (3 h)**

A lecture course that presents the basic principles and concepts of the function of selected systems of the human body, with emphasis on the muscular, cardiovascular, pulmonary, and nervous systems. Berry, Brubaker.

**HES 651. Nutrition in Health & Disease. (3 h)**

A lecture/lab course that presents the principles of proper nutrition including an understanding of the basic foodstuffs and nutrients as well as the influence of genetics, eating behavior, and activity patterns on performance, energy balance, and weight control. Labs focus on intervention in obesity and coronary heart disease through diet analysis, methods of diet prescription, and behavior modification. Miller.

**HES 652. Human Gross Anatomy. (4 h)**

A lecture/lab course on the structure and function of the human body. Labs are devoted to the dissection and study of the human musculoskeletal, neuromuscular, and vascular systems. Marsh, Messier.

**HES 653. Physiology of Exercise. (3 h)**

Lecture course that presents the concepts and applications of the physiological response of the human body to physical activity. The acute and chronic responses of the muscular and cardiorespiratory systems to exercise are examined. Other topics include exercise and coronary disease, strength and endurance training, somatotype and body composition, gender-related differences, and environmental influences. P-HES 650 or POI. Miller, Nixon.

**HES 660. Epidemiology. (3 h)**

Introduction to basic determinants of the incidence of chronic disease in the population, and development of an understanding of individual, community, and environmental approaches to promoting healthful lifestyles in youth, adults, and elderly populations. Issues are analyzed by formal statistical modeling. Nixon.

**HES 670. Biomechanics of Human Movement. (3 h)**

Study of the mechanical principles which influence human movement, sport technique, and equipment design. Marsh, Messier.

**HES 675. Advanced Exercise Physiology. (3 h)**

Lecture course on the study of physiological and biochemical adaptations of the human body to exercise, with special emphasis on substrate metabolism, ventilation and respiration, oxygen transport, and muscle physiology. Berry.

**HES 682. Independent Study. (1-3 h)**

Literature reviews and/or laboratory research performed on an individual basis under the supervision of a faculty member. Staff.

**HES 715. Experimental Design. (3 h)**

Study of the various types of research relevant to health and exercise science. While attention is given to topics such as statistical treatment of data, the primary emphasis involves discussion concerning threats to internal and external validity for experimental and quasi-experimental designs. In conjunction with a sound methodological approach, practical experiences are provided in the preparation and presentation of thesis proposals. Rejeski.

**HES 721. Data Analysis and Interpretation. (3 h)**

The application of basic statistical techniques in the analysis and interpretation of data in scientific research. Topics include descriptive statistics, simple linear and multiple correlation/regression analysis, t-tests, analysis of variance and covariance, and non-parametric statistics. Berry.

**HES 733. Health Psychology. (3 h)**

Seminar on current topics in health psychology with a focus on wellness programs and rehabilitative medicine. Mihalko.

**HES 761. Cardiopulmonary Disease Management. (3 h)**

A lecture/lab class that examines the physiological, pathologic, and pharmacologic considerations of managing patients with cardiovascular and pulmonary disease. Special emphasis on learning diagnostic procedures, interventions, and therapies, particularly models for cardiac and pulmonary rehabilitation. Brubaker.

**HES 763. Advanced Biomechanics. (3 h)**

An in-depth study of the mechanical principles that influence human movement. Topics include the study of kinetics, kinematics, cinematography, sport shoe design, and skeletal biomechanics. P-Anatomy, kinesiology, physics, or POI. Messier.

**HES 765. Graded Exercise Testing and Exercise Prescription. (3 h)**

The study of the rationale for the use of graded exercise testing in the evaluation of functional work capacity and prescription of exercise. Lectures include the analysis of different modes of evaluation: treadmill, bicycle ergometer, arm ergometer, and field testing, with the application of the results in the evaluation of normal and cardiac patients and prescription of exercise for special populations. Lab experiences include the use of electrocardiographs, ergometers, and metabolic analyzers in the assessment of functional capacity. Brubaker.

**HES 780. Advanced Topics in Exercise and Sport Science. (3 h)**

This course is divided into two or more content areas to allow an in-depth treatment of selected topics that are not a regular part of required coursework. Topics are chosen from the following areas: anatomy, biomechanics, computer analysis, multivariate statistics, and physiology of exercise. Seminar and/or lab approach. Staff.

**HES 782. Independent Study in Health and Exercise Science. (1-3 h)**

Literature and/or laboratory research performed on an individual basis under the supervision of a faculty member. Staff.

**HES 783. Seminar in Health and Exercise Science. (1 h)**

Seminar class designed to bring graduate students and faculty together on a regular basis to discuss research proposals, research design and studies, results of research, and current topics in health and exercise science. Talks by invited or visiting speakers are included as seminar sessions. Graduate students receive reading and work assignments related to the material presented in the seminar. May be repeated for credit. Staff.

**HES 784. Seminar in Health and Exercise Science. (1 h)**

Seminar class designed to bring graduate students and faculty together on a regular basis to discuss research proposals, research design and studies, results of research, and current topics in health and exercise science. Talks by invited or visiting speakers are included as seminar sessions. Graduate students receive reading and work assignments related to the material presented in the seminar. May be repeated for credit. Staff.

**HES 791. Thesis Research I. (1-9 h)**

May be repeated for credit. Satisfactory/Unsatisfactory.

**HES 792. Thesis Research II. (1-9 h)**

May be repeated for credit. Satisfactory/Unsatisfactory.

## Hindi-Urdu (HNU)

**HNU 611. Elementary Hindi-Urdu I. (3 h)**

Introduction to modern Hindi-Urdu. Designed for students with no knowledge of the language. Focus is on developing reading, writing, and conversation skills for practical contexts. Instruction in the Devanagari and Nastaliq scripts and an exploration of the cultures of India and Pakistan. Fall only.

**HNU 612. Elementary Hindi-Urdu II. (3 h)**

Continued instruction in modern Hindi-Urdu. Students with previous background may place into this course with the instructor's permission. Focus is on developing reading, writing, and conversation skills for practical contexts. Instruction in the Devanagari and Nastaliq scripts and an exploration of the cultures of India and Pakistan. P-HNU 611.

**HNU 653. Intermediate Hindi-Urdu I. (3 h)**

Introduction to the Devanagari writing system used in Hindi, as well as other South Asian languages, including Nepali and Sanskrit. Includes an overview of the Hindi-Urdu sound system and language. Students with prior proficiency in spoken Hindi or Urdu may complete this course in preparation for entering Intermediate Hindi-Urdu. P-HNU 612.

**HNU 701. Intermediate Hindi-Urdu II. (3 h)**

Continued intermediate instruction in spoken and written Hindi-Urdu. Students with previous background may place into this course with the instructor's permission. Focus is on building oral and written communication skills in a range of contexts. Exploration of the cultures of India and Pakistan through discussions of authentic materials. Instruction in Devanagari and Nastaliq scripts. P-HNU 653 or POI.

## History (HST)

**HST 605. Medieval and Early Modern Iberia. (3 h)**

Examines the variety of Christian, Muslim, and Jewish cultures that flourished on the Iberian peninsula between the years 700 and 1700. Themes include religious diversity and the imposition of orthodoxy, the formation of nation-states and empires, geographic exploration and discovery, and the economics of empire in the early modern period.

**HST 606. Science, Magic, and Alchemy in Europe, 1400-1700. (3 h)**

Examines scientists and magicians in medieval Europe, who developed theoretical models and practical approaches to understand and to manipulate the natural world. Looks at alchemists, who transformed matter to understand it as well as to make things for practical purposes: metals, gems, medicines, and the philosopher's stone.

**HST 607. Italian Renaissance. (3 h)**

Examination of the economic, political, intellectual, artistic, and social developments in the Italian world from 1350-1550.

**HST 608. World of Alexander the Great. (3 h)**

An examination of Alexander the Great's conquests and the fusion of Greek culture with those of the Near East, Central Asia, and India. Special emphasis placed on the creation of new political institutions and social customs, modes of addressing philosophical and religious issues, as well as the achievements and limitations of Hellenistic Civilization. Lerner.

**HST 609. European International Relations since World War I. (3 h)**

Surveys European international relations in the 20th century beyond treaties and alliances to examine the economic, social, and demographic factors that shaped formal arrangements between states. Covers the impact of new forms of international cooperation, pooled sovereignty, and nongovernmental organizations on European diplomacy and internal relations.

**HST 610. 20th Century Eastern Europe. (3 h)**

Examination of the history of 20th century Eastern Europe, including the creation of nation-states, World War II, and the nature of Communist regimes established in the postwar period. Course includes a discussion of the collapse of the Eastern Bloc and the challenges of European integration.

**HST 612. Jews, Greeks, and Romans. (3 h)**

Largely from a Jewish context, the course explores the political, religious, social and philosophical values shaped by the collision between Jews, Greeks, and Romans, from the Hellenistic Period to the Middle Ages.

**HST 613. The History of European Jewry from the Middle Ages to the Present. (3 h)**

Examines the Jewish historical experience in Europe from the medieval period to the Holocaust and its aftermath. Includes a consideration of social, cultural, economic and political history, and places the particular experience of Jews within the context of changes occurring in Europe from the medieval to the modern period.

**HST 614. European Economic and Social History, 1700-1990. (3 h)**

Changes in Europe's economic structures and how they affected Europeans' lives. Emphasizes how economic forces interacted with social and institutional factors.

**HST 615. Greek History. (3 h)**

The development of ancient Greek civilization from the Bronze Age to the end of the Classical Period stressing social institutions, individual character, and freedom of social choice within the framework of cultural, political, and intellectual history. Lerner.

**HST 616. Rome: Republic & Empire. (3 h)**

Survey of Roman history and civilization from its beginning to about 500 C.E., with emphasis on the conquest of the Mediterranean world, the evolution of the Republican state, the growth of autocracy, the administration of the empire, and the interaction between Romans and non-Romans. Lerner.

**HST 617. The French Revolution and Napoleonic Empire. (3 h)**

The revolution and wars that constitute one of the pivotal points in modern history. Williams.

**HST 618. Weimar Germany. (3 h)**

Art, literature, music, and film of Weimar Germany, 1919-1933, in historical context. German or history credit determined at registration.

**HST 619. Poland and the Baltic Region. (3 h)**

Introduction to the history of Poland and the eastern Baltic littoral since 1760, covering the territory that later became Estonia, Latvia, Lithuania, and Poland; emergence of independence after World War I; the Soviet experience; and re-establishment of independence during the break-up of the Soviet Union.

**HST 620. Write and Record! Diaries and Memoirs of the Nazi Holocaust. (3 h)**

Examines a wide range of diaries and memoirs to illuminate the historical period of Nazism, seeking to understand daily life under Nazi rule, the brutality of the perpetrators, and the many responses of Jews forced to live in such circumstances. From Anne Frank's account of hiding in an Amsterdam secret annex to Art Spiegelman's graphic novel of his parent's experience in Auschwitz, the diaries and memoirs of Holocaust victims provide an invaluable resource for historians.

**HST 621. Zionism, Palestine, and Israel in Historical Perspective. (3 h)**

Investigates both the European causes of Zionism and the Middle Eastern consequences of the establishment of the State of Israel. Through our discussion, students will be introduced to many of the scholarly debates over the history, practices, and consequences of Zionism, the State of Israel, and the Israel-Palestinian conflict.

**HST 622. Migrants and Refugees in Modern History. (3 h)**

Explores forced migrations and the development of the concepts of refuge from the 16th to 20th centuries, drawing on cases from around the world. Considers how states, empires, and non-governmental organizations have handled migrants and refugees, as well as the lived experiences of displaced individuals.

**HST 624. Fashion in the Eighteenth Century. (3 h)**

Examines the relationship between consumer culture and democratic politics in the eighteenth-century, focusing on Britain, North America, France, and Haiti. Considers laws regulating dress; the relationship between democracy, political resistance, and costume; the construction of political allegiance through clothes and symbols; and the ways fashion mediated ideas about empire, race, and gender.

**HST 625. English Kings, Queens, and Spectacle. (3 h)**

Examines how English royal authority was created, legitimized, performed, and challenged between the reigns of Henry VIII and George III through ritual, image, and text. Topics include: gender and power; court culture; the press and political revolution; popular politics and propaganda; graphic satire; and the commercialization of politics.

**HST 627. Profit and Power in Britain. (3 h)**

Examines economic ideas and British society between 1688 and 1914. Topics include connections between consumption and identity; the relationship of morals to markets; the role of gender and the household; knowledge, technology, and the industrial revolution; and the place of free trade in the political imagination.

**HST 628. History of the English Common Law. (3 h)**

Study of the origins and development of the English common law and its legacy to modern legal processes and principles.

**HST 631. The United States in Age of Empire, 1877-1919. (3 h)**

Explores the late 19th and early 20th centuries when the United States joined in the global scramble for empire. Examines the domestic and international causes of American imperial expansion; the modes of rule that the U.S. exercised in its formal and informal possessions; and the political and intellectual debates at home and abroad about America's expansion as a world power.

**HST 632. The United States and the Global Cold War. (3 h)**

Considers United States efforts to secure its perceived interests through "nation building" and economic development in Africa, Latin America, the Middle East, and much of Asia during the Cold War and after. Emphasizes the ideological and cultural dimensions of American intervention.

**HST 633. European Diplomacy, 1848-1914. (3 h)**

The diplomacy of the great powers, with some attention given to the role of publicity in international affairs. Topics include the unification of Italy and of Germany, the Bismarckian system, and the coming of World War I. Staff.

**HST 634. Myths, Monarchs, and Masses in South Asian Islam. (3 h)**

An introduction to Islam through South Asian social, political, cultural, and intellectual history.

**HST 635. Hindus and Muslims in India, Pakistan, and Beyond. (3 h)**

Examines the shared yet different, intertwined yet separate histories of the Hindus and Muslims of modern India, Pakistan, Bangladesh, and Sri Lanka primarily over the last two centuries. Explores the checkered existence of the two communities in order to understand diversity and questions of coexistence and conflict.



**HST 636. Gender in African History. (3 h)**

Examines the close relationship between understandings of gender and power in African societies, with particular focus on the last several hundred years. After addressing the sources and methods scholars have used to address these topics, the course examines conceptions of gender and power in pre-colonial African societies, the impact of the colonial period on men and women, the gendered nature of nationalism and independence, and the importance of gender and power to many of Africa's post-colonial challenges.

**HST 637. Women and Gender in Early America. (3 h)**

History of women and gender roles from 1600 through the Civil War, including the social constructions of femininity and masculinity and their political, economic, and cultural significance.

**HST 638. Sexuality, Race and Class in the U.S. since 1850. (3 h)**

The history of gender relations from the late nineteenth century to the present. Analyzes the varying definitions of femininity and masculinity, the changing notions of sexuality, and the continuity and diversity of gender roles, with special attention to race, class, and ethnicity.

**HST 639. Sickness and Health in American History. (3 h)**

Analysis of major trends in health, sickness, and disease within the broad context of social, political, and economic developments. Examines indigenous healing; colonial medicine; emergence of hospitals and asylums; public health; medical ethics; race, class and gender issues; and natural versus high-tech approaches to health care in the 20th century.

**HST 640. Social and Cultural Change in Urban Africa. (3 h)**

While popular imagination suggests that the African past is largely a rural one, many of the continent's most explosive social and cultural transformations have taken place in its cities. This course examines how urban residents have worked to creatively shape some of sub-Saharan Africa's major transformations. Major topics include the social and cultural fabric of pre-colonial African cities, the impact of colonialism on African towns, cities as sites of revolution and independence, and the contemporary conditions and challenges facing urban residents.

**HST 641. Africans in the Atlantic World, 1750-1815. (3 h)**

Explores Africans' experience in the Atlantic world (Africa, Europe, and the Americas) during the era of slave trade by examining their encounters with Indians and Europeans and their adjustment to slave traders in West Africa.

**HST 643. The Silk Roads. (3 h)**

Explores the global exchanges across land and sea from the Bronze Age to the Early Modern Era, and their impact on the states and stateless societies connected by the Silk Road from China and Japan to the Mediterranean and the British Isles.

**HST 644. Early Modernity in China. (3 h)**

This course explores historic transformations in Chinese economy, society, thought and culture from 1500 to 1800. These developments are placed within their local, global and comparative context. Students read a wide variety of Chinese primary sources in English translation, including philosophical treatises, literary works, diaries, and memoirs, some of which were written by Jesuit missionaries from Catholic Europe.

**HST 647. Japan since World War II. (3 h)**

Survey of Japanese history since the outbreak of the Pacific War, with emphasis on social and cultural developments. Topics may include occupation and recovery of independence, the "1955 System," high-growth economics, and the problems of prosperity in recent years.

**HST 648. Samurai and Geisha: Fact, Film, and Fiction. (3 h)**

Focuses on two well-known groups in Japanese history, the samurai (warriors) and geisha (entertainers). By analyzing historical studies and primary sources, as well as works of fiction and films about samurai and geisha, the course considers how Japanese and Western historians, novelists, and filmmakers have portrayed the two groups and by implication Japan and its history in the modern period.

**HST 650. World Economic History: Globalization, Wealth and Poverty, 1500-Present. (3 h)**

Explores the growth of globalization and its role in the creation of wealth and poverty in both developed and underdeveloped nations. Focus on trade, industrialization, and agricultural and technological advances in global contexts.

**HST 651. The American Revolution. (3 h)**

Examines the transformation that unfolded during the struggles for sovereignty in North America between 1765 and 1800. Considers the political upheavals that converted some British colonists into insurgents and explores the unlikely unification of disparate provinces into a confederated republic.

**HST 652. Ten Years of Madness: The Chinese Cultural Revolution, 1966 to 1976. (3 h)**

A history of the Chinese Cultural Revolution from 1966 to 1976. Examines the origins, consequences, and collective memories of the catastrophic political events and the social and cultural transformations that took place in China during the last decade of Mao's leadership.

**HST 653. War & Society in Early America. (3 h)**

Examines the evolution of warfare among the indigenous and colonial societies of North America between 1500 and 1800 and considers the roles of economics, class, gender, race, religion, and ideology in cultures of violence.

**HST 654. Revolutionary and Early National America, 1763-1820. (3 h)**

A history of the formative generation of the United States. Considers the dramatic transformations of the constitutional, economic, and racial orders, as well as new performances in politics, national identity, gender, and culture.

**HST 655. History of Nature Conservation in Latin America. (3 h)**

Explores human dimensions of nature conservation in Latin America in a global perspective. It engages the historical rise of ideas about wildness and the social consequences of environmental protection, including the different implications for rural and urban areas, for resident peoples, for particular species, and for international relations. Special attention is given to the ways different cultures and societies in Central and South America and the Caribbean conserved natural resources (including forests, fields, waterways, and animals) and how conservation and ideas about conservation changed over time. Taught only in conjunction with field experience in Peru or other sites in Latin America. (CD)

**HST 656. Jacksonian America, 1815-1850. (3 h)**

The U.S. in the age of Jackson, Clay, Calhoun, and Webster.

**HST 658. The United States from Reconstruction to World War I. (3 h)**

Examines the impact of state and federal court cases upon the evolution of race and gender relations in the U.S. from 1789 to the present. Each case is placed within the political, economic and social historical context for the given time periods. Race includes Native Americans, African Americans, Asian Americans, and Latino Americans. This class will analyze government intervention, inaction, and creative interpretation.

**HST 659. Prostitutes, Machos, and Travestis: Sex and Gender in Latin-American History. (3 h)**

Explores gender and sexuality across 20th century Latin America and the Caribbean. Applies new theoretical developments in gender, masculinity, and LGBT studies to the region's history of race, revolution, labor, dictatorship, and social movements. Cases include the Mexican, Cuban, and Nicaraguan Revolutions and the Dominican and Argentine dictatorships.

**HST 660. Jewish Migrations to the Americas. (3 h)**

Compares Jewish migrations to the U.S., Latin America, and the Caribbean from the colonial period to the present, focusing on the peak mobility of the 1880s-1920s. Topics include changing conceptions of identity (national, racial, ethnic, religious), class, gender, assimilation, institutions, and relations both among Jews and between Jews and other groups.

**HST 662. American Constitutional History. (3 h)**

Origins of the Constitution, the controversies involving the nature of the Union, and constitutional readjustments to meet the new American industrialism.

**HST 665. Modern Native American History. (3 h)**

Considers broad historical issues and debates about native American identity, experiences with and memories of colonialism, cultural preservation and dynamism, and political sovereignty from 1830 to the present. Focuses on individual accounts, tribal case studies, and popular representations of Native people.

**HST 666. Historic Preservation and Conservation. (3 h)**

Explores the history of the preservation and conservation movements organized to save historic buildings and landscapes in the U.S. and other nations. Examines the laws, international charters, national, statewide, and local agencies, practices, collaborations, and emerging challenges of historic preservation and conservation.

**HST 667. Public History. (3 h)**

Introduces students to the major issues involved in the practice, interpretation, and display of history for nonacademic audiences in public settings. Central themes include controversial historical interpretations, the role of history in popular culture, issues and aims in exhibiting history, and the politics of historical memory. Explores some of the many ways people create, convey, and contest history, major themes in community and local history, and the problems and possibilities of working as historians in public settings.

**HST 668. US Environmental History. (3 h)**

Focuses on human actors and actions while highlighting how the material, or natural, world impacted Americans and shaped the nation. Investigates U.S. politics, society, and culture through the lens of the environment while exploring how American defined, represented, and used their natural environment over time.

**HST 669. Modern Military History. (3 h)**

Making war in the modern era, with special attention to the social context of military activity. Hughes.

**HST 670. Topics in North Carolina History. (3 h)**

A general chronological survey of North Carolina with emphasis on selected topics. May be repeated for credit if topic varies.

**HST 671. Transgender History, Identity, and Politics in the U.S.. (3 h)**

This course explores the experiences of and responses to transgender, gender non-conforming, and intersex (TGI) people in nineteenth- and twentieth-century America. We will examine how scientific/medical authorities, legal authorities, and everyday people have understood and responded to various kinds of gender non-conformity.

**HST 672. Introduction to African History. (3 h)**

Explores how public history projects (oral histories, museums, archives, documentaries) document gay, lesbian, and queer communities in the U.S. Discusses how historical and contemporary LGBTQ stories have been collected and examines the various queer identities that emerge through this process.

**HST 674. Protest and Rebellion in Latin America. (3 h)**

Study of the history of protest movements and rebellions in Latin America from primitive and agrarian revolts to mass working class and socialist organizations.

**HST 675. Black Lives. (3 h)**

Explores both the lived experience and the historical reality of African Americans. Black lives are profoundly shaped by their group experience, influenced in no small part by the role of racism. The biographical approach individuates historical figures struggling to fashion identity. Topics include character development, intimacy, gender roles, public and private personas, self-deceptions or defenses, and personal perceptions and biases. The craft of writing biography is taught throughout the semester.

**HST 676. Civil Rights and Black Consciousness Movements. (3 h)**

A social and religious history of the African-American struggle for citizenship rights and freedom from World War II to the present. Parent.

**HST 678. Race, Memory, and Identity. (3 h)**

Explores the collective memory and identity of American-Indian and African-American communities and their response to historical trauma in their cultural imagination, spirituality, and political and social activism. Also listed as REL 648.

**HST 680. America at Work. (3 h)**

Examines the American entrepreneurial spirit within the broader context of industrial, social, and economic change from the colonial period to the present and explores the social and cultural meanings attached to work and workers, owners and innovators, businesses and technologies, management and leadership.

**HST 681. Religious Utopias and the American Experience. (3 h)**

Religious groups of many different origins have found in North America an open space for creating settlements that would embody their ideals. This course surveys a range of such 18th- and 19th-century communities, including Moravians, Rappites, Shakers, and the Oneida and Amana colonies.

**HST 682. Religion in the Development of Higher Education. (3 h)**

Examines the role of religious groups in the founding of American colleges and universities, and explores how their role has changed across history up through contemporary trends and issues. Major themes include the heritage of religion in European higher education; institutions of higher education founded by specific American religious groups; religion in the liberal arts curriculum; religious activities in student life; the relationship of colleges and universities with religious sponsors and constituents, focusing on controversies such as science and religion; the impact of universities on liberal art colleges; and the trends toward growth and "secularization" in the last 50 years.

**HST 684. Global Outlaws in History since 1500. (3 h)**

Examines the motivations, ideologies, goals, and behavior of those who have been deemed "outlaws" to international society since 1500, including pirates, terrorists, smugglers, war criminals, and violators of copyright. Analyzes the role of power in creating the global regimes that define and target such activities.

**HST 685. History of Film: Bollywood and the Making of Modern India. (3 h)**

This course juxtaposes historical films made by the world's largest film industry based out of Bombay/Mumbai with the textual primary sources and secondary historical works and seeks to understand films as both interpretations and sources of history. It also explores specific themes such as nation, gender, caste, and community characteristics that are critical to understanding modern India.

**HST 687. Islamic Empires Compared: The Ottomans, Safavids and Mughals. (3 h)**

Examines, in a comparative way, central themes in the history of the Ottoman, Mughal, and Safavid Empires in the early modern period (1400-1800). Considers the ways in which Muslim rulers fostered political legitimacy, ruled over non-Muslim and heterodox subject populations, and recruited persons of diverse religious and ethnic background into state service.

**HST 688. Nation, Faith and Gender in the Middle East. (3 h)**

Traces the development of nationalism and its interaction with religious, transnational, and gender identities in the Middle East in the nineteenth and twentieth centuries. Topics include Zionism, Arabism, Turkish nationalism and Islamic revivalism.

**HST 689. The British Empire in the Middle East. (3 h)**

Covering the period from the late eighteenth to late twentieth centuries, this course considers British involvement in the Middle East, exploring the political, economic, social, and cultural facets of imperial power, decolonization and post-colonial international relations.

**HST 690. Research Seminar. (3 h)**

Offered by members of the faculty on topics of their choice. A paper is required.

**HST 691. Making History. (3 h)**

Seminar explores how historians make history through analysis, synthesis, and interpretation. Open to all students.

**HST 692. Individual Research. (3 h)**

Writing of a major research paper. May be taken in lieu of HST 690. P-POI.

**HST 693. American Foundations I. (3 h)**

Interdisciplinary study of American art, history, literature, and music. Using its collection of American art as the basis for study, Reynolda House Museum of American Art, in cooperation with Wake Forest University, accepts a limited number of students to study with professors from various disciplines through lectures, discussions, and concerts. Includes a study tour to New York City. (Taught in summer; students enroll for both courses. Students may enroll in either 693 or 763) Staff.

**HST 697. Historical Writing Tutorial. (1.5 h)**

Individual supervision of historical writing to improve a project initiated in HST 690 or HST 692. P-POI.

**HST 698. Individual Study. (3 h)**

Project for a qualified student in an area of study not otherwise available in the department; subject to approval. Work must be equivalent to an upper-level course.

**HST 699. Directed Reading. (1-3 h)**

Concentrated reading in an area of study not otherwise available. May be repeated for credit if topic varies. P-POI.

**HST 763. American Foundations I. (3 h)**

Interdisciplinary study of American art, history, literature, and music. Using its collection of American art as the basis for study, Reynolda House Museum of American Art, in cooperation with Wake Forest University, accepts a limited number of students to study with professors from various disciplines through lectures, discussions, and concerts. Includes a study tour to New York City. (Taught in summer; students enroll for both courses. Students may enroll in either 693 or 763) Staff.

**HST 765. Management of Cultural Organizations. (3 h)**

The structure and management of not-for-profit institutions, with emphasis on museums, historical societies and preservation organizations, libraries, archives, and research institutions.

**HST 771. Internship. (1-3 h)**

A project involving supervised work in a historical organization or scholarly effort; permitted only upon approval by the graduate committee of a petition presented by a qualified student. Staff.

**HST 798. Individual Study. (3 h)**

A project in an area of study not otherwise available in the department; permitted upon approval by the graduate committee of a petition presented by a qualified student. Staff.

## Linguistics (LIN)

**LIN 610. Sociolinguistics & Dialectology. (3 h)**

Study of variation in language: effects of regional background, social class, ethnic group, gender, and setting; social attitudes toward language; outcomes of linguistic conflicts in the community; evolution of research methods for investigating language differences and the diffusion of change. P- LIN 150 or POI.

**LIN 640. Special Topics:. (3 h)**

Inter-cultural Communication. In-depth examination of the role of intercultural communication in the shaping of the world order today. Through a historical and theoretical survey, as well as self-awareness tools, students will acquire insights and experience in the analysis and design of intercultural communication strategies with a global mindset at personal, corporate, national and international mass-media levels.

**LIN 680. Language Use & Technology. (3 h)**

Introduction to the fundamental concepts of creating and accessing large linguistic corpora (electronic collections of "real world" text) for linguistic inquiry. Course surveys a variety of cross-discipline efforts that employ corpus data for research and explores current applications.

**LIN 683. Language Engineering Localization and Terminology. (3 h)**

Introduction to the process of making a product linguistically and culturally appropriate to the target locale, and to computer-assisted terminology management. Surveys applications in translation technology. Taught in English. P-POI.

## Mathematics and Statistics (MST)

**MST 605. Applied Multivariable Mathematics. (3 h)**

Introduction to several topics in applied mathematics including complex numbers, probability, matrix algebra, multivariable calculus, and ordinary differential equations. May not be used toward any graduate degree offered by the department.

**MST 606. Advanced Mathematics for the Physical Sciences. (3 h)**

Advanced topics in linear algebra, special functions, integral transforms, and partial differential equations. May not be used toward any graduate degree offered by the department. P-MTH 605.

**MST 611. Introductory Real Analysis I. (3 h)**

Limits and continuity in metric spaces, sequences and series, differentiation and Riemann-Stieltjes integration, uniform convergence, power series and Fourier series, differentiation of vector functions, implicit and inverse function theorems.

**MST 612. Introductory Real Analysis II. (3 h)**

Limits and continuity in metric spaces, sequences and series, differentiation and Riemann-Stieltjes integration, uniform convergence, power series and Fourier series, differentiation of vector functions, implicit and inverse function theorems.

**MST 617. Complex Analysis I. (3 h)**

Analytic functions Cauchy's theorem and its consequences, power series, and residue calculus.

**MST 622. Modern Algebra II. (3 h)**

A continuation of modern abstract algebra through the study of additional properties of groups, rings, and fields.

**MST 624. Linear Algebra II. (3 h)**

A thorough treatment of vector spaces and linear transformations over an arbitrary field, canonical forms, inner product spaces, and linear groups.

**MST 626. Numerical Linear Algebra. (3 h)**

An introduction to numerical methods for solving matrix and related problems in science and engineering using a high-level matrix-oriented language such as MATLAB. Topics include systems of linear equations, least squares methods, and eigenvalue computations. Special emphasis is given to applications.

**MST 631. Geometry. (3 h)**

An introduction to axiomatic geometry including a comparison of Euclidean and non-Euclidean geometries.

**MST 634. Differential Geometry. (3 h)**

Introduction to the theory of curves and surfaces in two and three dimensional space including such topics as curvature, geodesics, and minimal surfaces.

**MST 645. Elementary Number Theory. (3 h)**

Course topics include properties of integers, congruences, and prime numbers, with additional topics chosen from arithmetic functions, primitive roots, quadratic residues, Pythagorean triples, and sum of squares.

**MST 646. Modern Number Theory. (3 h)**

Course topics include a selection of number-theory topics of recent interest. Some examples include elliptic curves, partitions, modular forms, the Riemann zeta function, and algebraic number theory.

**MST 647. Graph Theory. (3 h)**

Paths, circuits, trees, planar graphs, spanning trees, graph coloring, perfect graphs, Ramsey theory, directed graphs, enumeration of graphs and graph theoretic algorithms.

**MST 648. Combinatorial Analysis I. (3 h)**

Enumeration techniques, generating functions, recurrence formulas, the principle of inclusion and exclusion, Polya theory, graph theory, combinatorial algorithms, partially ordered sets, designs, Ramsey theory, symmetric functions, and Schur functions.

**MST 649. Combinatorial Analysis II. (3 h)**

Enumeration techniques, generating functions, recurrence formulas, the principle of inclusion and exclusion, Polya theory, graph theory, combinatorial algorithms, partially ordered sets, designs, Ramsey theory, symmetric functions, and Schur functions.

**MST 651. Introduction to Mathematical Modeling. (3 h)**

Introduction to the mathematical modeling, analysis and simulation of continuous processes using MATLAB, Mathematica or Maple. Topics include dimensional analysis, stability analysis, bifurcation theory, one-dimensional flows, phase plane analysis, index theory, limit cycles, chaotic dynamics, hyperbolic conservation laws and traveling waves.

**MST 652. Partial Differential Equations. (3 h)**

Detailed study of partial differential equations, including the heat, wave, and Laplace equations, using methods such as separation of variables, characteristics, Green's functions, and the maximum principle.

**MST 654. Discrete Dynamical System. (3 h)**

Introduction to the theory of discrete dynamical systems as applied to disciplines such as biology and economics. Includes methods for finding explicit solutions, equilibrium and stability analysis, phase plane analysis, analysis of Markov chains and bifurcation theory.

**MST 655. Introduction to Numerical Methods. (3 h)**

An introduction to numerical computations on modern computer architectures; floating point arithmetic and round-off error including programming in a scientific/engineering language such as MATLAB, Cor Fortran. Topics include algorithms and computer techniques for the solution of problems such as roots of functions, approximations, integration, systems of linear equations and least squares methods. Also listed as CSC 655.

**MST 657. Probability. (3 h)**

Distributions of discrete and continuous random variables, sampling distributions. Covers much of the material on the syllabus for the first actuarial exam. This course is cross-listed as STA 610.

**MST 658. Mathematical Statistics. (3 h)**

This course will cover derivation of point estimators, hypothesis testing, and confidence intervals using both maximum likelihood and Bayesian approaches. P - MST 657 or POI.

**MST 681. Individual Study. (1, 2 h)**

A course of independent study directed by a faculty adviser. By prearrangement. May be repeated for credit.

**MST 682. Reading in Statistics. (1-3 h)**

Reading in statistical topics to provide a foundational basis for more advanced study in a particular area. May not be used to satisfy any requirement in the MA degree with thesis. No more than three hours may be applied to the requirements for the MA degree without thesis. May be repeated for credit for a total of 3 hours.

**MST 683. Advanced Topics in Mathematics. (1-3 h)**

Topics in mathematics that are not considered in regular courses. Content varies.

**MST 711. Real Analysis. (3 h)**

Measure and integration theory, elementary functional analysis, selected advanced topics in analysis.

**MST 712. Real Analysis. (3 h)**

Measure and integration theory, elementary functional analysis, selected advanced topics in analysis.

**MST 715. Seminar in Analysis. (1 h)****MST 716. Seminar in Analysis. (1 h)****MST 717. Optimization in Banach Spaces. (3 h)**

Banach and Hilbert spaces, best approximations, linear operators and adjoints, Frechet derivatives and nonlinear optimization, fixed points and iterative methods. Applications to control theory, mathematical programming, and numerical analysis.



**MST 718. Topics in Analysis. (3 h)**

Selected topics from functional analysis or analytic function theory.

**MST 721. Abstract Algebra. (3 h)**

Groups, rings, fields, extensions, Euclidean domains, polynomials, vector spaces, Galois theory.

**MST 722. Abstract Algebra. (3 h)**

Groups, rings, fields, extensions, Euclidean domains, polynomials, vector spaces, Galois theory.

**MST 723. Seminar on Theory of Matrices. (1 h)****MST 724. Seminar on Theory of Matrices. (1 h)****MST 725. Seminar in Algebra. (1 h)****MST 726. Seminar in Algebra. (1 h)****MST 728. Topics in Algrbra. (3 h)**

Topics vary and may include algebraic coding theory, algebraic number theory, matrix theory, representation theory, non-commutative ring theory.

**MST 731. Topology. (3 h)**

Point-set topology including topological spaces, continuity, connectedness, compactness, and metric spaces. Additional topics in topology may include classification of surface, algebraic topology, and knot theory.

**MST 732. Topics in Topology and Geometry. (3 h)**

Topics vary and may include knot theory, algebraic topology, differential topology, manifolds, and Riemannian geometry. May be repated for credit. P - 731 or POI.

**MST 735. Seminar on Topology. (1 h)****MST 736. Seminar on Topology. (1 h)****MST 737. Seminar in Geometry. (1 h)****MST 738. Seminar on Geometry. (1 h)****MST 744. Topics in Number Theory. (3 h)**

Topics vary and are chosen from the areas of analytic, algebraic, and elementary number theory. Topics may include Farey fractions, the theory of partitions, Waring's problem, prime number theorem, and Dirichlet's problem.

**MST 745. Seminar on Number Theory. (1 h)****MST 746. Seminar on Number Theory. (1 h)****MST 747. Topics in Discrete Mathematics. (3 h)**

Topics vary and may include enumerative combinatorics, graph theory, algebraic combinatorics, combinatorial optimization, coding theory, experimental designs, Ramsey theory, Polya theory, representational theory, set theory and mathematical logic.

**MST 748. Seminar on Combinatorial Analysis. (1 h)****MST 749. Sem on Combinatorial Analysis. (1 h)****MST 750. Dynamical Systems. (3 h)**

Introduction to modern theory of dynamical systems. Linear and nonlinear autonomous differential equations, invariant sets, closed orbits, Poincare maps, structural stability, center manifolds, normal forms, local bifurcations of equilibria, linear and non-linear maps, hyperbolic sets, attractors, symbolic representation, fractal dimensions. P - MST 611.

**MST 752. Topics in Applied Mathematics. (3 h)**

Topics vary and may include computational methods in differential equations, optimization methods, approximation techinques, eigenvalue problems. May be repeated for credit.

**MST 753. Nonlinear Optimization. (3 h)**

The problem of finding global minimums of functions is addressed in the context of problems in which many local minima exist. Numerical techniques are emphasized, including gradient descent and quasi-Newton methods. Current literature is examined and a comparison made of various techniques for both unconstrained and constrained optimization problems. Credit no allowed for both MST 753 and CSC 753. P - MST 655 or CSC 655.

**MST 754. Numerical Methods for Partial Differential Equations. (3 h)**

Numerical techniques for solving partial differential equations (including elliptic, parabolic, and hyperbolic) are studied along with applications to science and engineering. Theoretical foundations are described and emphasis is placed on algorithm design and implementation using either C, FORTRAN, or MATLAB. Credit not allowed for both MST 754 and CSC 754. P-MST 655 or CSC 655.

**MST 757. Stochastic Processes and Applications. (3 h)**

This course includes the axiomatic foundations of probability theory and an introduction to stochastic processes. Applications may include Markov chains, Markov Chain Monte Carlo with Metropolis-Hastings, Gibb sampling, Brownian motion, and related topics, with an emphasis on modern developments. This course is cross-listed as STA 710. P-MST 657 or STA 610 and MST 611 or POI.

**MST 791. Thesis Research I. (1-9 h)**

May be repeated for credit. Satisfactory/Unsatisfactory.

**MST 792. Thesis Research II. (1-9 h)**

May be repeated for credit. Satisfactory/Unsatisfactory.

## Philosophy (PHI)

**PHI 631. Plato. (3 h)**

Detailed analysis of selected dialogues, covering Plato's most important contributions to moral and political philosophy, theory of knowledge, metaphysics, and theology.

**PHI 632. Aristotle. (3 h)**

Study of the major texts, with emphasis on metaphysics, ethics, and theory of knowledge. P-POI.

**PHI 641. Kant. (3 h)**

Study of Kant's principal contributions to metaphysics and the theory of knowledge.

**PHI 642. Studies in Modern Philosophy. (3 h)**

Treatment of selected figures and/or themes in seventeenth and eighteenth century European philosophy. P-POI.

**PHI 652. 19th Century European Philosophy: Hegel, Kierkegaard, and Nietzsche. (3 h)**

Is there a way to think about the natural world that also makes sense of human life and history? Is anything gained, or lost, by thinking holistically about the world as a whole? Is a life dedicated to thinking about the world (and living accordingly) a way of avoiding an authentic human life? What does it mean to live authentically? Does nihilism provide the answer or is it a form of avoidance?.

**PHI 653. Heidegger. (3 h)****PHI 654. Wittgenstein. (3 h)**

The work of Ludwig Wittgenstein on several central philosophical problems studied and compared with that of Frege, James, and Russell. Topics include the picture theory of meaning, truth, skepticism, private languages, thinking, feeling, the mystical, and the ethical. P-POI.

**PHI 660. Ethics. (3 h)**

Systematic examination of central ethical theories in the Western philosophical tradition. Such theories include Kantian deontology, utilitarianism, Aristotelian virtue ethics, and divine command theory.

**PHI 661. Topics in Ethics. (3 h)**

P-POI.

**PHI 662. Social & Political Philosophy. (3 h)**

Systematic examination of the work of selected contemporary and traditional philosophers on topics such as the state, the family, distributive justice, property, liberty, and the common good.

**PHI 670. Philosophy & Christianity. (3 h)**

Examination of the philosophical foundations of Christian thought and belief. Christian concepts of God and life everlasting, trinity, incarnation, atonement, prayer, sin, evil and obligation.

**PHI 671. Aesthetics and the Philosophy of Art. (3 h)**

Covers such questions as: What is beauty? What is taste? What is art? Must art be beautiful? Can immoral art be good art? Readings may cover historical figures such as Plato or Kant, or may focus on contemporary writers.

**PHI 672. Philosophy of Religion. (3 h)**

What is religion? Are the gods dead? Is God dead? Is religious belief a symptom of an underlying human weakness or biological process, or could it be a response to the sacred? Must believers rely on something less than knowledge? Are philosophical proofs the way to knowledge of God? What sort of problem is the "problem of evil" and what is its significance? How are religious beliefs like and unlike metaphysical, moral, and modern scientific beliefs?

**PHI 673. Philosophy of Science. (3 h)**

Systematic and critical examination of major views concerning the methods of scientific inquiry, and the bases, goals, and implication of the scientific conclusions which result from such inquiry. P-POI.

**PHI 674. Philosophy of Mind. (3 h)**

Selection from the following topics: the mind-body problem; personal identity; the unity of consciousness; minds and machines; the nature of experience; action, intention, and the will.

**PHI 675. Philosophy of Language. (3 h)**

Study of such philosophical issues about language as truth and meaning, reference and description, proper names, indexicals, modality, tense, the semantical paradoxes, and the differences between languages and other sorts of sign-systems. P-POI.

**PHI 681. Topics in Epistemology. (3 h)**

The sources, scope and structure of human knowledge. Topics include: skepticism; perception, memory and reason; the definition of knowledge; the nature of justification; theories of truth. P-POI.

**PHI 682. Topics in Metaphysics. (3 h)**

P-POI.

**PHI 685. Seminar. (2-3 h)**

Offered by members of the faculty on specialized topics of their choice. With permission, may be repeated for credit. P-POI.

## Physics (PHY)

**PHY 601. Physics Seminar. (0.5 h)**

Discussion of contemporary research, usually with visiting scientists.

**PHY 602. Physics Seminar. (0.5 h)**

Discussion of contemporary research, usually with visiting scientists.

**PHY 607. Biophysics. (3 h)**

Introduction to the structure, dynamic behavior, and function of DNA and proteins, and a survey of membrane biophysics. The physical principles of several biophysical methods, such as X-ray diffraction, sedimentation, light scattering, light absorption, fluorescence and single molecule tools are studied. Designed to be accessible to students with biochemistry, chemistry, or physics backgrounds. Recommended C-PHY 625.

**PHY 610. Extragalactic Astronomy and Cosmology. (3 h)**

Topics covered include galactic structure, models for galaxies and galaxy formation, the large-scale structure of the universe, the Big Bang model of the universe, physical processes such as nucleosynthesis in the early universe, and observational cosmology.

**PHY 620. Physics of Macromolecules. (3 h)**

Physics of biologically important molecules, especially proteins and nucleic acids. Topics covered include the physical basis of biomolecular structure, the energetics and statistical mechanics of biomolecular dynamics, and the electrostatics and solvation of biomolecules. Course requirements may include a field trip to a relevant conference, such as the Carolina Biophysics Symposium, and a discussion section with an appropriate physics colloquium speaker. Designed to be accessible to students with biochemistry, chemistry, or physics backgrounds provided they have some exposure to thermodynamics and macromolecular structure. C-PHY 623.

**PHY 623. Comput Biophys Lab. (1 h)**

Application of techniques in molecular modeling, including energy minimization, molecular dynamics simulation, and conformational analysis, to biological macromolecules. P-PHY 630 or POI.

**PHY 625. Biophysical Methods Lab. (1 h)**

Lab involves experiments using various biophysical techniques such as DNA and protein gel electrophoresis, protein crystallography and X-ray diffraction, electron paramagnetic resonance, atomic force microscopy, fluorescence microscopy, light scattering, stopped-flow absorption spectroscopy and ultracentrifugation. Recommended C-PHY 607.

**PHY 635. Computational Physics. (3 h)**

An introduction to finding numerical solutions to scientific problems. Topics include understanding computational errors, differentiation, integration interpolation, root finding, random numbers, linear systems, Fourier methods, and the solution of ODEs and PDEs. There is no computer programming prerequisite. Credit will not be given for both PHY 635 and CSC/MST 655.

**PHY 637. Analytical Mechanics. (1.5 h)**

The Lagrangian and Hamiltonian formulations of mechanics with applications. Taught in the first half of the fall semester.

**PHY 639. Electricity and Magnetism. (1.5 h)**

Electrostatics, magnetostatics, dielectric and magnetic materials, Maxwell's equations and applications to radiation, relativistic formulation. The first half course is taught in the second half of the fall semester, following PHY 637. The other course is taught in the spring semester. These should be taken in sequence. P-PHY 601.

**PHY 640. Electricity and Magnetism. (1.5-3 h)**

Electrostatics, magnetostatics, dielectric and magnetic materials, Maxwell's equations and applications to radiation, relativistic formulation. The first half course is taught in the second half of the fall semester, following PHY 637. The other course is taught in the spring semester. These should be taken in sequence. P-PHY 601.

**PHY 641. Thermodynamics and Statistical Mechanics. (3 h)**

Introduction to classical and statistical thermodynamics and distribution functions.

**PHY 642. Electricity and Magnetism. (1.5 h)****PHY 643. Quantum Physics. (3 h)**

Application of the elementary principles of quantum mechanics to atomic, molecular, solid state, and nuclear physics.

**PHY 644. Quantum Physics. (3 h)**

Application of the elementary principles of quantum mechanics to atomic, molecular, solid state, and nuclear physics.

**PHY 645. Advanced Physics Laboratory. (1 h)**

The lab associated with PHY 643, 644.

**PHY 652. Physical Optics and Optical Design. (1-4 h)**

Interaction of light with materials; diffraction and coherent optics; ray trace methods of optical design. Lab-three hours.

**PHY 652L. Physical Optics Lab. (0 h)****PHY 654. Introduction to Solid State Physics. (3 h)**

Survey of the structure, composition, physical properties, and technological applications of condensed matter. P-PHY 643.

**PHY 655. Exotic Materials. (1.5 h)**

This course is a study of materials that express exotic properties that are derived from some aspect of the system's dimensionality. It introduces the thermal, electrical, optical and magnetic properties of exotic materials systems. It discusses simple models for the structure-property relationships for a wide range of nanoscale and low-dimensional systems.

**PHY 656. Electronic Imaging Sciences. (1.5 h)**

This course introduces the theory and application of the electron imaging systems: transmission electron microscopy (TEM) and scanning electron microscopy (SEM). It focuses on basic materials science though some biological materials will be covered. It is taught as a series of lectures followed by laboratories.

**PHY 657. Scanning Probes. (1.5 h)**

This course examines the theory and application of scanning tunneling microscopy and atomic force microscopy (STM/AFM). It introduces how each type of imaging works, how to model spectroscopic data, and how to use each microscope. Students will image using the STM and AFM as well as take and reduce spectroscopy data using models built in Maple or Mathematica.

**PHY 658. Kinetics of Materials. (1.5 h)**

This course offers a study of driving forces for atomic and ionic motion within solids leading to a range of materials properties from work hardening to phase transformations and formation. Atomic-level models for diffusion will be introduced as well as techniques and examples of the solution to the diffusion equation. It complements the traditional thermodynamics course.

**PHY 661. Biophysics Seminar. (1 h)**

Seminal and current publications in biophysics are studied. Each week a member of the class makes an oral presentation on a chosen publication and leads the ensuing discussion. Students may also be required to make a second oral presentation relevant to their own research. Does not fulfill course requirements for Master's or PhD degrees. May be repeated for credit.

**PHY 663. Condensed Matter Seminar. (1 h)**

Seminal and current publications in condensed matter physics are studied. Each week a member of the class makes an oral presentation on a chosen publication and leads the ensuing discussion. Does not fulfill course requirements for Master's or PhD degrees. May be repeated for credit.

**PHY 681. Research. (1-3 h)**

Library, conference, and lab work performed on an individual basis.

**PHY 682. Research. (1-3 h)**

Library, conference, and lab work performed on an individual basis.

**PHY 685. Bioinformatics. (3 h)**

Introduces bioinformatics and computing techniques essential to current biomedical research. Topics include genome and protein sequence and protein structure databases, algorithms for bioinformatics research, and computer architecture and environmental considerations. Also listed as CSC 685 and BIO 685. P-Introductory courses in biology, chemistry, and molecular biology or biochemistry or POL.

**PHY 691. Special Topics in Physics. (1-4 h)**

Courses in selected topics in physics. May be repeated if course content differs.

**PHY 692. Special Topics in Physics. (1-4 h)**

Courses in selected topics in physics. May be repeated if course content differs.

**PHY 711. Classical Mechanics and Mathematical Methods. (3 h)**

A study of variational principles and Lagrange's equations, the rigid body equations of motion, the Hamilton equations of motion and canonical transformations, Hamilton-Jacobi theory, and applications to continuous systems and fields. Kerr, N. Holzwarth.

**PHY 712. Electromagnetism. (3 h)**

A study of electric and magnetic fields in vacuum and within media and their sources. Analytical and numerical methods for solving Maxwell's equations are also an important part of the course.

**PHY 715. Nonlinear Optics and Quantum Electronics. (1-4 h)**

Nonlinear phenomena in laser spectroscopy, the quantum nature of optical processes in matter, and topics in laser physics. Lab-three hours. R. Williams.

**PHY 731. Elementary Particle Physics. (3 h)**

Fundamentals of contemporary elementary particle physics. Carlson.

**PHY 741. Quantum Mechanics. (3 h)**

Study of the foundations of modern quantum theory, with an emphasis on the meaning of the wave equation, operators, eigen-functions, eigenvalues, commutators, matrix mechanics, spin, and scattering. Anderson, Carlson, N. Holzwarth, Kerr.

**PHY 742. Quantum Mechanics. (3 h)**

Study of the foundations of modern quantum theory, with an emphasis on the meaning of the wave equation, operators, eigen-functions, eigenvalues, commutators, matrix mechanics, spin, and scattering. Anderson, Carlson, N. Holzwarth, Kerr.

**PHY 743. Advanced Quantum Mechanics. (3 h)**

Advanced topics in quantum mechanics, including an introduction to relativistic quantum theory, quantum electrodynamics, and many particle treatments. Anderson, Carlson, N. Holzwarth, Kerr.

**PHY 744. Introduction to Quantum Field. (3 h)**

Introduction to relativistic quantum field theory, including canonical quantization, path integral techniques, perturbation theory, and renormalization. Anderson, Carlson.

**PHY 745. Group Theory. (3 h)**

Group theory and its applications to the quantum mechanics of atoms, molecules, and solids. Carlson.

**PHY 752. Solid State Physics. (3 h)**

Introductory course including the structure of perfect crystalline solids, their thermal electronic properties, the free electron and band theory of metals, imperfect crystals, transport properties, and semiconductors. Carroll, N. Holzwarth, Kerr Matthews, R. Williams.

**PHY 754. Surface Science. (3 h)**

Experimental and theoretical methods for the study of surfaces and interfaces. Lab-1.5 hours. N. Holzwarth, R. Williams.

**PHY 756. Seminar on Defects in the Solid State. (2 h)**

The generation and interactions of point and line defects such as color centers, vacancies, and dislocations treated. Matthews, R. Williams.

**PHY 765. Gravitational and Particle Theory Seminar. (1 h)**

Topics in general relativity, particle physics, and astrophysics are studied. Each week a faculty member or member of the class makes an oral presentation on a chosen topic and leads the ensuing discussion. Does not fulfill minimum course requirements for Master's and PhD degrees.

**PHY 770. Statistical Mechanics. (3 h)**

Introduction to probability theory and to the physics of systems containing large numbers of particles from the classical as well as the quantum point of view. Kerr.

**PHY 771. Radiological Physics. (3 h)**

The nature and fundamental concepts of ionizing radiation including: ionizing radiation, radiation quantities, attenuation and stopping power, charged particle and radiation equilibria radioactive decay, photon interactions, charged and uncharged particle interactions, x-ray production and quality, dosimetry concepts, ionization cavity theory, and calibration of ionizing radiation beams.

**PHY 773. Radiation Therapy Physics. (3 h)**

The physics of radiation treatment including: radiation producing equipment, character of photon and electron radiation beams, radiation dose functions, computerized radiation treatment planning, brachytherapy, special radiation treatment procedures, quality assurance, and radiation shielding for high energy facilities.

**PHY 774. Physics of Medical Imaging. (3 h)**

The physical principles, mathematical algorithms and devices used in diagnostic medical imaging, covering the following imaging modalities: x-ray digital imaging, digital image receptors, computerized tomography and reconstruction algorithms, ultrasound imaging, magnetic resonance imaging and nuclear medicine imaging.

**PHY 776. Medical Health Physics. (3 h)**

Physical and biological aspects for the use of ionizing radiation in medical environments, biological consequences of human radiation exposure, principles of ionizing radiation protection, operational dosimetry, radiation exposure recommendations and regulations, physical principles of radiation shielding design, personnel monitoring, medical health physics instrumentation, and waste disposal.

**PHY 780. Theory of General Relativity. (3 h)**

Study of the covariant formulation of physical laws in mechanics and electromagnetism. Anderson, Cook.

**PHY 785. Topics in Theoretical Physics. (1-3 h)**

Selected topics of current interest in theoretical physics not included in other courses. Anderson, Carlson, Cook, Fetrow, N. Holzwarth, Kerr, Salsbury.

**PHY 787. Advanced Topics in Physics. (1-3 h)**

Lectures on advanced topics in physics that depend on the subspecialty of the instructor. Topics range from medical physics to special topics in biophysics, condensed matter physics, or quantum optics. May be repeated for credit.

**PHY 789. Survival Skills for Scientists. (1 h)**

Students will learn skills that are essential to a successful career in the sciences. The following topics will be covered: Mentoring; How to Read, Write, and Review a Research Paper; Grant & Fellowship Basics; Choosing a Career Path & Creating a Winning Job Application; and Networking & Giving Effective Talks.

**PHY 791. Thesis Research I. (1-9 h)**

May be repeated for credit. Satisfactory/Unsatisfactory.

**PHY 792. Thesis Research II. (1-9 h)**

May be repeated for credit. Satisfactory/Unsatisfactory.

**PHY 795. Physics for Education Research. (3 h)**

Fulfills the requirement for a graduate course in physics for students in the Masters in Education program seeking certification to teach physics.

**PHY 891. Dissertation Research I. (1-9 h)**

May be repeated for credit. Satisfactory/Unsatisfactory.

**PHY 892. Dissertation Research II. (1-9 h)**

May be repeated for credit. Satisfactory/Unsatisfactory.

## Politics&International Affairs (POL)

**POL 611. Political Parties Voters and Elections. (3 h)**

Examination of party competition, party organizations, the electorate and electoral activities of parties, and the responsibilities of parties for governing.

**POL 617. Politics of the Mass Media. (3 h)**

Exploration of the relationship between the political system and the mass media. Two broad concerns are the regulation of the mass media and the impact of media on political processes and events.

**POL 618. Congress and Policymaking. (3 h)**

Examination of the composition, authority structures, external influences, and procedures of Congress with emphasis on their implications for policymaking in the United States.

**POL 620. The American Presidency. (3 h)**

Explores the interaction of the presidential office and the individual contemporary presidents in an evolving political context.

**POL 629. Women, Gender, and Politics. (3 h)**

Examines classical and contemporary studies of how gender structures politics, including the political participation of women and other gendered social groups, as well as current policy issues.

**POL 632. Politics in Russia and Eastern Europe. (3 h)**

Analysis of the political, economic, and social patterns of the region emphasizing the internal dynamics and divergent outcomes of the regime transitions after the fall of communism in Central and Eastern Europe and the former Soviet Union.

**POL 636. Government and Politics in Latin America. (3 h)**

Comparative analysis of the institutions and processes of politics in the Latin American region.

**POL 646. Politics and Policies in South Asia. (3 h)**

Survey of major issues relevant to politics and policy in India, Pakistan, Bangladesh, and Sri Lanka.



**POL 647. Islam and Politics. (3 h)**

Explores the interrelationship of Islam and politics in the contemporary world. Deals with Islam as a political ideology which shapes the structure of political institutions and behavior. Looks at Islam in practice by examining the interaction between Islam and the political systems of Iran, Pakistan, Saudi Arabia, and others.

**POL 650. Afghanistan, Pakistan, Iraq and U.S. Policy since 2001. (3 h)**

Broadly addresses the phenomena of U.S. involvement in two ongoing conflicts – the Afghanistan war and the Iraq war. Focuses on the respective domestic and international politics and policies of the four main actors relevant to the conflicts: U.S., Afghanistan, Pakistan, and Iraq.

**POL 653. International Political Economy. (3 h)**

Analyzes major issues in the global political economy including theoretical approaches to understanding the tension between politics and economics, monetary and trade policy, North-South relations, environmentalism, human rights, and democratization.

**POL 654. American Foreign Policy Contemporary Problems. (3 h)**

Analyzes the historical and theoretical perspectives shaping U.S. engagement with the world past and present. Applies the understanding to current problems in U.S. foreign Policy.

**POL 659. Palestine&Arab-Israeli Conflict. (3 h)**

Explores the nature and scope of the conflict with particular emphasis on the time period post-1967 and the respective policies of the three most significant actors in the conflict: the U.S., Israel and Palestine.

**POL 663. U.S. Foreign Policy Mid East. (3 h)**

Critical analysis of U.S. foreign policy with respect to the Middle East since the second World War. Utilizes a case study method of instruction.

**POL 672. Democratic Theory. (3 h)**

Examines the historical and theoretical underpinnings of democracy and some of the critiques of those foundations. Focuses on understanding some of the major and competing traditions of democracy theory and how key democratic concepts are reconceptualized within these various traditions.

**POL 673. Marx, Marxism, and Post-Marxism. (3 h)**

Examines Marx's early humanistic writings, his later philosophy, the vicissitudes of 20th century Marxism and attempts to reorient Marx's theory in light of developments in contemporary political thought and practice.

**POL 677. Feminist Political Thought. (3 h)**

Introduces feminist thought and its implications for the study and practice of political theory. Topics include feminist critiques of the Western political tradition and schools of feminist political theory.

**POL 678. Politics and Identity. (3 h)**

Investigates the ways in which concepts of identity have informed political norms, structure, and practices; the myriad forms identity takes (particularly gender, sexual orientation, class, race, religion, and ethnicity) drawing on examples from across the globe, and theoretical approaches proposed for engaging differences.

**POL 687. Individual Study. (2, 3 h)**

Intensive research leading to the completion of an analytical paper conducted under the direction of a faculty member. Students initiate the project and secure the permission of an appropriate instructor. May be repeated for a maximum of 6 hours, only three of which may count toward the major. P-POI.

**POL 688. Directed Reading. (2, 3 h)**

Concentrated reading in an area of study not otherwise available. Students are responsible for initiating the project and securing the permission of an appropriate instructor. P-POI.

**POL 689. Internship in Politics. (2, 3 h)**

Field work in a public or private setting with related readings and an analytical paper under the direction of a faculty member. Students are responsible for initiating the project and securing the permission of an appropriate instructor. Normally one course in an appropriate subfield is taken prior to the internship. P-POI.

## Psychology (PSY)

**PSY 620. Physiological Psychology. (3 h)**

Neurophysiological and neuroanatomical explanations of behavior.

**PSY 622. Psychopharmacology. (3 h)**

Survey of the influences of a wide range of psychoactive drugs, both legal and illegal, on human physiology, cognition, and behavior.

**PSY 623. Animal Behavior. (3 h)**

Survey of lab and field research on animal behavior.

**PSY 626. Learning Theory and Research. (3 h)**

Theory and current research in learning, with emphasis on applications of learning principles for behavior modification and comparisons across species.

**PSY 629. Perception. (3 h)**

Survey of theory and research findings on various sensory systems (vision, hearing, touch, taste).

**PSY 631. Research in Cognitive Psychology. (3 h)**

In-depth examination of research in a selected area of cognitive psychology such as memory, attention, or executive function. Research projects required.

**PSY 633. Motivation of Behavior. (3 h)**

Survey of basic motivational concepts and related evidence.

**PSY 638. Emotion. (3 h)**

Survey of theory, methods, and research in the area of emotion. Developmental, cultural, social-psychological, physiological, personality, and clinical perspectives on emotions are given.

**PSY 641. Research in Developmental Psychology. (3 h)**

Methodological issues and selected research in child development. Research projects required.

**PSY 646. Stereotyping and Prejudice. (3 h)**

Research and theory on social and cognitive processes that underlie prejudice and discrimination.

**PSY 648. Clinical Neuropsychology. (3 h)**

Surveys connections between abnormal neurological processes and clinical abnormalities. This implies already having an understanding of normal brain function and anatomy.

**PSY 651. Personality Research. (3 h)**

The application of a variety of research procedures to the study of human personality. Research projects required.

**PSY 655. Research in Social Psychology. (3 h)**

Methodological issues and selected research in the study of the human as a social animal. Field research projects required.

**PSY 657. Cross-Cultural Psychology. (3 h)**

Examination of differences in psychological processes (e.g., attitudes, perception, mental health, organizational behavior) associated with cultural variation.

**PSY 659. Psychology of Gender. (3 h)**

Exploration of the psychological similarities and differences between human males and females, including consideration of social, cognitive, motivational, biological, and developmental determinants of behavior.

**PSY 662. Psychological Testing. (3 h)**

Theory and application of psychological assessment procedures in the areas of intelligence, aptitude, vocational interest, and personality.

**PSY 663. Survey of Clinical Psychology. (3 h)**

Overview in the field of clinical and other selected areas of applied psychology.

**PSY 664. Prejudice, Discrimination, Racism, and Heterosexism. (3 h)**

Comparison of cross-cultural similarities and differences in the initiation, maintenance, and treatment of prejudice, discrimination, and racism, with an emphasis on past and current trends in the U.S.

**PSY 667. Parent-Child Relationships. (3 h)**

Surveys characteristics of parent-child relationships and issues of parenting as related to a variety of factors, including developmental changes of parent and child, family structure, and sociocultural context.

**PSY 674. Judgment and Decision Making. (3 h)**

Theoretical and empirical examination of how people make decisions and judgments about their lives and the world, and how these processes can be improved.

**PSY 692. Contemporary Problems in Psychology. (1.5 h)**

Seminar treatment of current theory and research in specific areas within psychology. The course is one-half semester.

**PSY 701. Current Topics in Psychology. (1.5 h)**

Seminar courses in selected topics in psychology.

**PSY 702. Current Topics in Psychology. (1.5 h)**

Seminar courses in selected topics in psychology.

**PSY 703. Current Topics in Psychology. (3 h)**

Seminar course in selected topics in psychology.

**PSY 715. Research Design and Analysis in Psychology. (3 h)**

Intensive study of the design of experiments and the analysis of research data in psychology. Covers conventional methods, including univariate and multivariate analysis of variance, multiple regression, and factor analysis. Requires previous or concurrent coursework in basic statistics. Written permission of instructor required. Furr, Leary, Stone.

**PSY 716. Research Design and Analysis in Psychology. (3 h)**

Intensive study of the design of experiments and the analysis of research data in psychology. Covers conventional methods, including univariate and multivariate analysis of variance, multiple regression, and factor analysis. Requires previous or concurrent coursework in basic statistics. Written permission of instructor required. Furr, Leary, Stone.

**PSY 720. Biological Psychology. (3 h)**

Study of the biological basis of behavior and mental processes, with emphasis on current developments in neuroscience, and human applications of this information. Laboratory work in neuroanatomy and psychophysiology. Blumethal.

**PSY 728. Human Cognition. (3 h)**

Current theory and research on functional characteristics and neural correlates of cognitive processes in such areas as memory, attention, and language. Dagenbach.

**PSY 738. Learning and Motivation. (3 h)**

Basic learning principles and concepts and related motivational concepts. Beck.

**PSY 742. Seminar in Developmental Psychology. (3 h)**

Critical examination of the major findings, principles, and theories of development, with attention to both human and lower-animal research. Buchanan.

**PSY 752. Seminar in Social Psychology. (3 h)**

Content and methodology of social psychology examined through a critical and comparative analysis of contemporary theory and literature. Seta.

**PSY 757. Seminar in Personality Psychology. (3 h)**

Evaluation of contemporary solutions to important problems in personality psychology, with special attention to historical context and anticipated future directions. Fleson, Furr.

**PSY 770. Psychology Practicum. (1-3 h)**

Work experience in an applied psychology setting (such as clinical or industrial) under a qualified supervisor. Staff.

**PSY 771. Psychology Practicum. (1-3 h)**

Work experience in an applied psychology setting (such as clinical or industrial) under a qualified supervisor. Staff.

**PSY 772. Psychology Practicum. (1-3 h)**

Work experience in an applied psychology setting (such as clinical or industrial) under a qualified supervisor. Staff.

**PSY 773. Psychology Practicum. (1-3 h)**

Work experience in an applied psychology setting (such as clinical or industrial) under a qualified supervisor. Staff.

**PSY 782. Readings and Research in Psychology. (1-3 h)**

This listing allows the graduate student, working under the supervision of a faculty member, to pursue and receive credit for 1) a special reading project in an area not covered by regular courses or 2) a special research project not related to the master's thesis. Supervising faculty member and hours credit for which enrolled determined by graduate committee prior to registration.

**PSY 785. Directed Thesis Research I. (3 h)**

First-year students undertake a substantial research project under the direction of their adviser. Staff.

**PSY 786. Directed Thesis Research. (3 h)****PSY 791. Thesis Research I. (1-9 h)**

Staff.

**PSY 792. Thesis Research II. (1-9 h)**

Staff.

## Religion (REL)

**REL 600. Approaches to the Study of Religion. (3 h)**

A phenomenological study of different ways of defining religion, including views of representative philosophers, psychologists, sociologists, anthropologists, theologians, and historians of religion.

**REL 604. Myth, Ritual, and Symbolism. (3 h)**

Explores how people envision and manipulate the supernatural in cross-cultural perspective. Emphasizes functional aspects of religious beliefs and practices.

**REL 605. Ethnography of Religion. (3 h)**

Study of theory and method in ethnography of religion where students closely read ethnographies from a variety of cultures and discuss the practical, methodological, and ethical issues related to ethnography. Course culminates with students researching and writing their own ethnographies.

**REL 606. Ritual Studies. (3 h)**

An introduction to the various methods and theories employed in the field of ritual studies, while examining comparative rituals and ritualized practices from around the world.

**REL 607. Magic, Science, and Religion. (3 h)**

Explores concepts of magic, science, and religion that emerged in Western thought and culture from late antiquity through the European Enlightenment and analyzes connections between religious traditions and Western, Modern Science.

**REL 608. Sacred Scripture in the Tradition of Abraham. (3 h)**

Comparative study of sacred texts in Judaism, Christianity, and Islam with particular attention to the issues of authority, function, and interpretations.

**REL 610. The Prophetic Literature. (3 h)**

Examination of the development and theological contents of the literary products of Israel's prophetic movement.

**REL 612. The Critical Study of the Pentateuch. (3 h)**

Study of the five traditional books of Moses (the Torah) and various lines of analysis that modern Biblical critics have used to interpret their composition and role in the development of Israelite theological thought.

**REL 613. Near Eastern Archeology. (3 h)**

Survey of twentieth-century archeology in the Near East with attention to its importance for Biblical studies.

**REL 615. Field Research in Biblical Archeology. (3 h)**

Study of the religion and culture of the ancient Near East through the excavation and interpretation of ancient sites.

**REL 616. Field Research in Biblical Archeology. (3 h)**

Study of the religion and culture of the ancient Near East through the excavation and interpretation of ancient sites.

**REL 617. The Wisdom Literature. (3 h)**

Examination of the development, literary characteristics, and theological contents of the works of ancient Israel's sages.

**REL 618. Feminist and Contemporary Interpretations of the Bible. (3 h)**

Study of feminist and contemporary approaches to the Bible in light of the history of interpretation and a range of contemporary concerns and interpretive contexts.

**REL 620. The Search for Jesus. (3 h)**

Introduction to the issues, assumptions, evidence, and debate that shapes the continuing quest for the historical Jesus.

**REL 623. Jesus Traditions. (3 h)**

Examines ancient Christian and other religious representations of Jesus in historical, social, cultural and theological context.

**REL 624. Early Christian Literature. (3 h)**

Examination of various literature and perspectives of the first three centuries of the Christian movement.

**REL 628. Jewish-Christian Relations and the New Testament. (3 h)**

Study of Jewish-Christian relations and selected writings of the New Testament in the historical, social, religious and political contexts of ancient Judaism and emerging Christianity. Focus varies with instructor.

**REL 629. Chinese Medicine. (3 h)**

An interdisciplinary exploration and analysis of Chinese medicine, its fundamental theories, and its range of health-oriented and religious applications.

**REL 630. Pope, Jefferson & Imam: A Study In Comparative Ethics. (3 h)**

Comparative study of the moral values and socio-ethical positions in the major religious traditions of the world, with focus on their various methods of reasoning and sources of authority.

**REL 631. Religion and Law. (3 h)**

A study of religion and law as distinct yet interdependent spheres that influence cultural negotiations about authority, power, identity, and the regulation of society. Geographic and tradition-specific focus may vary with instructor.

**REL 632. Religion and Public Engagement. (3 h)**

This seminar introduces students to dynamics at work at the interface between religious communities and the public sphere. It will explore, through a wide range of readings, guest lectures, and films, the potential for social change—constructive and destructive—within and between communities in locally, regionally, nationally and globally.

**REL 635. Christian Ethics and the Problem of War. (3 h)**

Examination of the causes and characteristics of war, various Christian responses to it, and approaches to peacemaking, with attention to selected contemporary issues.

**REL 636. Religious Traditions and Human Rights. (3 h)**

Study of the relationships and tensions between religious traditions and human rights, with illustrations from historical and contemporary issues and movements.

**REL 638. Religion Ethics and Politics. (3 h)**

Examination of ethical issues in religion and politics using materials from a variety of sources and historical periods.

**REL 639. Religion, Power and Society in Modern Africa. (3 h)**

Interdisciplinary study of the growth transformations of Africa's major religious traditions (Christianity, Islam, and the indigenous religions) and of their relations with secular social changes.

**REL 641. Religion and Ecology. (3 h)**

Cross-cultural examination of the relationships among human beings, their diverse cultures, habitats, and religions, including social and political understandings of the environment.

**REL 642. Religious Intolerance in U.S.. (3 h)**

Study of the various manifestations of religious intolerance in the U.S. from the colonial period until the present.

**REL 643. Religion, Culture, and the Body. (3 h)**

A cross-cultural, multi-disciplinary exploration of the body as a malleable locus of contested ideals that informs personal, social, and religious identity formation.

**REL 644. Religion, Poverty, and Social Entrepreneurship. (3 h)**

Interdisciplinary study of major themes in religion, poverty, reduction, and social entrepreneurship. Focus and community emphasis may vary with instructor.

**REL 645. The African American Religious Experience. (3 h)**

Exploration of the religious dimensions of African-American life from its African antecedents to contemporary figures and movements.

**REL 647. Religion, Gender, & Sexuality. (3 h)**

This course explores how "religion" regulates gender and sexuality by examining religious texts, media, and political rhetoric through feminist, queer, and postcolonial theory. Through an analysis of historical and contemporary debates and issues concerning gender and sexuality, this course considers how political, social, and religious institutions understand and deploy religious belief and discourse to legislate, repress, and pathologize certain criminal, deviant, immoral, or sinful.

**REL 648. Race, Memory, and Identity. (3 h)**

Explores the collective memory and identity of American-Indian and African-American communities and their response to historical trauma in their cultural imagination, spirituality, and political and social activism.

**REL 649. Asian Meditation Practices. (3 h)**

Introduces and examines theoretical and practical aspects of various forms of Eastern meditation (concentration, mindfulness, Zen, visualization, and moving energy work) from both practitioner and modern scientific perspectives.

**REL 651. Sociology of Religion. (3 h)**

Introduces the sociological analysis of religion, including religious beliefs and experiences, the cultural context of religion, varieties of religious organization, religious change and social change.

**REL 655. Jewish Identities: Religion, Race, and Rights. (3 h)**

Examines how evolving definitions of race, religion, and Jewishness have correlated and conflicted in varied and sometimes surprising ways and how these shifts have been tied to legal rights and social privileges.

**REL 656. Faces of Modern Judaism. (3 h)**

Examines contemporary expressions of Judaism and its historical roots.

**REL 657. Jews in the United States. (3 h)**

Focusing on the 19th-21st centuries, this course examines Jewish American histories, experiences, and identities, as well as their impact on American society as a whole.

**REL 659. Hinduism in America. (3 h)**

Study of the meanings, values, and practices associated with the religions of Hinduism in dialogue with the dominant culture of America.

**REL 660. Hindus, Muslims, and Sikhs in North America. (3 h)**

This course examines the racialization of Hinduism, Islam, Sikhism in North America. Through an analysis of historical documents, immigration laws, mainstream and social media, popular culture, and academic texts, this class explores how these religions are racialized in Canada and the US. Using a postcolonial and intersectional approach, we will examine how race, religion, gender, sexuality, and class interact to stigmatize or empower certain individuals and/or groups.

**REL 661. Topics in Buddhism. (3 h)**

Variable topics in buddhist history, thought, and/or practice. May be repeated for credit if topic varies.

**REL 662. Topics in Islam. (3 h)**

Examination of the origins and development of Islam, the world's second largest religious tradition. Attention is given to the formation of Islamic faith and practice as well as contemporary manifestations of Islam in Asia, Africa, and North America. May be repeated for credit if topic varies.

**REL 663. Religions of Japan. (3 h)**

Study of the central religious traditions of Japan from pre-history to the present, including Shinto, Buddhism, Zen Buddhism, Christianity, and Confucianism.

**REL 665. History of Religion in America. (3 h)**

Study of American religions from colonial times until the present.

**REL 667. Contemplative Traditions In Christianity. (3 h)**

Study of Christian mysticism and contemplation (spirit possession, visions, dreams, and meditation) and their relation to contemporary issues.

**REL 668. The Protestant and Catholic Reformations. (3 h)**

Study of the origin and development of Reformation theology and ecclesiology.

**REL 669. Radical Christian Movements. (3 h)**

Study of selected radical movements in the Christian tradition and their relation to contemporary issues.

**REL 672. History of Christian Thought. (1.5, 3 h)**

Study of recurring patterns in Christian thought across time and cultures and some of the implications of those patterns in representative ancient and modern figures.

**REL 672B. History of Christian Thought Medieval and Reformation Thought. (1.5 h)**

Study of the history of Christian thought, beginning with its Hebraic and Greek backgrounds and tracing its rise and development to modern times. The course may be divided into halves for 1.5 credits each: a) Patristic Thought and b) Medieval and Reformation Thought.

**REL 673. Special Topics in African-American Religious Traditions. (3 h)**

Variable topics in African-American religious traditions. May be repeated for credit if topic varies.

**REL 674. Black Messiahs and Uncle Toms. (3 h)**

Examines the cultural and religious history of black leadership in the United States.

**REL 675. Race, Myth, and the American Imagination. (3 h)**

A study of myth and mythology in relation to the racial imaginary in America.

**REL 676. Race, Religion, and Film. (3 h)**

Examines past and contemporary filmmakers who couple religious themes with racial concerns.

**REL 678. Latin American Liberation Theology. (3 h)**

Historical, contextual, and theoretical survey of diverse forms of Latin American theologies of liberation.

**REL 681. Zen Buddhism. (3 h)**

An examination of the origins and development of Zen Buddhism from China (Ch'an) to Japan and contemporary America. Particular attention is given to Zen doctrine and practice in the context of the broader Buddhist tradition.

**REL 682. Religion and Culture in China. (3 h)**

A thematic study of Chinese religious traditions and culture focusing on history, ritual, scripture, and popular practice. Topics include cosmology, ancestor veneration, shamanism, divination, and the role of women. Ford.

**REL 683. The Qur'an & the Prophet. (3 h)**

Examines the history, content, and main approaches to the sacred book of Islam. Explores the influence and interaction between the holy word and its transmitter the Prophet Muhammad.

**REL 684. Islam and Law: Varieties in Interpretation and Expression. (3 h)**

Explores main tenets of the Islamic law (Shari'ah) and how this law has been applied in past and present Islamic societies. Looks at legal issues through the lens of gender, ethics, non-muslim minorities, rights, and duties.

**REL 685. Topics in South Asian Religions. (3 h)**

Variable topics in the religions of South Asia. May be repeated for credit if topic varies.



**REL 686. Indian Epics. (3 h)**

Examines one or both Indian epics, the Mahabharata and Ramayana, while paying attention to either epic's religious, social, and political contexts, performance, and development in Indian history.

**REL 687. Priests, Warriors and Ascetics in Ancient India. (3 h)**

Introduces students to the history, culture and religious traditions of ancient India by examining the overlapping practices, beliefs, ideologies, and gender representations of priests, warriors, kings, and ascetics.

**REL 688. South Asian Women: Religion, Culture and Politics. (3 h)**

This course examines the intersection of religion, race, and gender of South Asian women from a feminist and postcolonial perspective. This course is cross-listed as WGS 688.

**REL 689. Islam in the West: Changes and Challenges. (3 h)**

Explores issues of identity, ethnicity and religion within various Muslim communities living in western countries. A central goal is to understand how these communities negotiate the new environment and the challenges they face.

**REL 690. Spec Topics in Religion. (1.5-3 h)**

Religion topics of special interest. May be repeated for credit.

**REL 691. Topics in East Asian Religions. (3 h)**

Variable topics in the religions of China, Korea, and Japan. May be repeated if topic varies.

**REL 692. Topics in First Peoples' Traditions. (3 h)**

Variable topics in the religions of American Indian and Canadian First Nations. May be repeated for credit if topic varies.

**REL 693. Topics in Religions of Africa. (3 h)**

Variable topics in the religions of Africa or African diaspora. May be repeated for credit if topic varies.

**REL 695. Exploring Interfaith Practice and Leadership. (3 h)**

This online course on interfaith leadership invites students to consider how they might engage most effectively with people from a variety of religious backgrounds.

**REL 696. Interreligious Encounters and Engagements. (3 h)**

Surveys the history of dialogue activities among various religious communities and introduces the methods and theories of interreligious dialogues. Part of this class is interaction with local interfaith projects.

**REL 700. Theory and Method in the Study of Religion. (3 h)**

Explores the history of and methodological resources for the study of religion. Focus may vary according to the instructor, but the emphasis is on the ways religion has been defined, studied and interpreted over the last several centuries.

**REL 701. Directed Reading. (1-3 h)**

May be repeated for credit if topic varies.

**REL 702. Directed Reading. (1-3 h)**

May be repeated for credit if topic varies.

**REL 703. Postmodern Perspective on Power, Symbolism and Performance. (3 h)**

A critical examination of postmodern theories on the relationship between religion and culture.

**REL 704. Conceptions of the Ultimate. (3 h)**

A comparative study of religious conceptions of the ultimate (divine, sacred) within Eastern and Western traditions through a range of methodological lenses including phenomenological, philosophical, theological, and sociological.

**REL 705. Research in Religion. (3 h)**

Tools and methodologies applicable to research in religion. Fulfills the three hours in research methods that the religion department requires of first-year MA students.

**REL 708. Religion Language & Symbol. (3 h)**

An examination of the distinct use of language in religious discourse, with attention to theoretical understandings of human language, the variety of philosophical efforts to define the validity of religious language, and the role of metaphor and analogy in religious communication.

**REL 709. Field Program in Religion and Public Engagement. (1-3 h)**

Integrated study of major themes in religion and public engagement carried out in partnership with one or more communities off campus. Focus varies with instructor. On request.

**REL 716. Old Testament Theology. (3 h)**

Major motifs of revelation in the Old Testament; analysis of recent attempts to write Old Testament theology.

**REL 718. Old Testament Exegesis. (3 h)**

Detailed analysis and exegesis of selected portions of the Hebrew Bible. P-Biblical Hebrew.

**REL 719. Old Testament Exegesis. (3 h)**

Detailed analysis and exegesis of selected portions of the Hebrew Bible. P-Biblical Hebrew.

**REL 720. The History of Biblical Interpretation. (3 h)**

A detailed study of the history of biblical interpretation and hermeneutics.

**REL 721. New Testament Theology. (3 h)**

Delineation of an approach to New Testament theology as a whole, a consideration of the hermeneutical problem, and an examination of two or three themes in New Testament theology.

**REL 723. New Testament Exegesis. (3 h)**

Examination of selected portions of the Greek New Testament, with attention to the tools necessary for exegesis. P-Koine Greek.

**REL 724. New Testament Exegesis. (3 h)**

Examination of selected portions of the Greek New Testament, with attention to the tools necessary for exegesis. P-Koine Greek.

**REL 726. Seminar in Early Christianity Studies. (3 h)**

Intensive study of selected topics and texts in early Christianity studies.

**REL 737. Figures and Traditions in Religious Ethics. (3 h)**

Seminar course that examines the basic ethical works and theories of central figures in Western and non-Western traditions. Students engage in close readings of important texts in religious thought and morality and produce essays reflecting on the themes addressed by the authors.

**REL 738. Seminar in Christian Social Ethics. (3 h)**

Critical study of classic texts and figures in the history of Christian ethics and social thought.

**REL 740. Seminar in the Sociology of Religion. (3 h)**

Examination of selected classical and contemporary texts illustrative of the theories, methods, and purposes of the sociological study of religion.

**REL 751. Theory and Practice of Pastoral Counseling. (3 h)**

Study of counseling methodologies, psychotherapeutic techniques, personal development, and human behavior in terms of the implications for pastoral counseling.

**REL 755. Clinical Pastoral Education. (3 h)**

Clinical experience in pastoral care, including work in crisis situations, seminars, interdisciplinary clinical group sessions, formal pastoral counseling, urban ministry assignments, and participation in group therapy. (Both semesters must be completed.)

**REL 756. Clinical Pastoral Education. (3 h)**

Clinical experience in pastoral care, including work in crisis situations, seminars, interdisciplinary clinical group sessions, formal pastoral counseling, urban ministry assignments, and participation in group therapy. (Both semesters must be completed.)

**REL 761. Seminar in Eastern Religion. (3 h)**

Directed study in the selected areas of the religious traditions of the East.

**REL 762. Literature of Ancient Judaism. (3 h)**

Examination of the rabbinic writings (Mishnah, Tosefta, Talmud, Midrashim, Targumim, and the Liturgy), the Dead Sea Scrolls, The Old Testament Apocrypha and Pseudepigrapha, and the literature of Hellenistic Judaism (e.g., Philo and Josephus).

**REL 763. Hellenistic Religions. (3 h)**

Considerations of available source materials, questions of method, and bibliography related to such Hellenistic religions as the Mysterics, Hellenistic Judaism, and Gnosticism.

**REL 766. Seminar in Christian History. (3 h)**

Directed study of selected areas in the history of Christianity, including Baptist history.

**REL 768. The Protestant and Catholic Reformations. (3 h)**

Study of the origin and development of Reformation theology and ecclesiology.

**REL 771. Religions in America. (3 h)**

A study of religious traditions, events, and individuals shaping religious life in America. Attention is given to native religious, colonization, denominations, awakenings, religious liberty, the western movement, and the rise of the "American Self." The development of pluralism and the impact of immigration, civil rights, and "new religions" are also studied.

**REL 775. Seminar in the History of Christian Thought. (3 h)**

Intensive study of a selected period or movement in Christian theological history, with special reference to seminal persons and writings.

**REL 780. Seminar in Theology & Lit. (3 h)**

Intensive study of a single theologian in relation to a literary figure with a similar religious outlook, the aim being to investigate how literature and theology mutually invigorate and call each other into question. Representative pairings: Niebuhr/Auden, Barth/O'Connor, Tillich/Updike, Newman/Eliot, Kierkegaard/Percy. May be repeated for credit if the writers studied are different.

**REL 781. Special Topics in Religion. (3 h)**

An intensive, in-depth study of a selected issue in the study of religion. Focus varies with instructor. May be repeated if topic varies.

**REL 791. Thesis Research I. (1-9 h)**

May be repeated for credit. Satisfactory/Unsatisfactory.

**REL 792. Thesis Research II. (1-9 h)**

May be repeated for credit. Satisfactory/Unsatisfactory.

## Spanish (SPA)

**SPA 622. Spanish Pronunciation and Dialect Variation. (3 h)**

Description of, and practice with, the sounds, rhythm, and intonation of Spanish and the differences from English, with special attention to social and regional diversity. Strongly recommended for improving pronunciation. This course meets a N.C. requirement for teacher certification.

**SPA 623. Advanced Grammar & Composition. (3 h)**

Advanced-level review of Spanish morphology and syntax applied to the refinement of writing techniques.

**SPA 630. The Debate about Woman in Late Medieval Spain. (3 h)**

Explores romantic love in the Iberian Peninsula in the 14th and 15th centuries focusing on the debate about woman as an index of social changes happening at the moment.

**SPA 631. Medieval Spain A Cultural and Literary Perspective. (3 h)**

Examination of the literary, social, and cultural themes, such as: Quests and Discoveries, Pilgrimage and the Act of Reading, Images of Islam, the Judaic Tradition in Spanish Literature, and Spiritual Life and Ideal.

**SPA 632. Golden Age of Spain. (3 h)**

Close analysis of literary texts, such as Lazarillo de Tormes, and study of the history of art, politics, and economics of the sixteenth and seventeenth centuries, with emphasis on themes such as the writer and society, humanism, the picaresque, Catholic mysticism, and power and politics.

**SPA 633. Don Quijote: The Birth of the Novel. (3 h)**

Study of Don Quijote, the first modern novel, and several exemplary novels, and contemporary theoretical approaches to them. Considers related art, music, and film. Includes discussion of themes such as the development of prose fiction, the novel as a self-conscious genre, women and society, religion and humanism, nationalism, and imperialism.

**SPA 634. Voices of Modern Spain. (3 h)**

Study of the multifaceted cultural identity of contemporary Spain through different literary genres, art, and film.

**SPA 635. Love, Death, and Poetry. (3 h)**

Study of the representation of universal themes in Spanish poetry from different historical periods.

**SPA 638. Love, Death, and Poetry. (3 h)****SPA 641. European-American Encounters, 1492 to the Present. (3 h)**

Study of the 500-year tradition of representations of encounter between Spain and the Americas, with special attention to the ways the topic is used to define and redefine individual and collective identities. Primary texts include narratives, plays, engravings, murals, films, and advertisements.

**SPA 642. From Colonial to Postcolonial Voices. (3 h)**

Study of a variety of texts from the 18th and 19th centuries dealing with political emancipation, nation-building, and continental identity.

**SPA 647. Contemporary Theatre in Spain and Spanish America. (3 h)**

Study of contemporary Peninsular and Spanish-American theatre within its political, social, cultural, and aesthetic context.

**SPA 648. Contemporary Women Novelists and their Female Characters. (3 h)**

Study of representative novels by women writers from Spain and Latin America, with emphasis on the representation of the female protagonist within her cultural context.

**SPA 655. Romantic Nationalism, Avant-garde Nihilism, and the Deconstruction of Utopia. (3 h)**

Study of Latin-American poetry, including symbolist, surrealist, and conversational poetry, "happenings," and artistic manifestoes. Politics, nation-building, liberation theology, and love are common themes.

**SPA 656. Transgressing Borders: Identity in the Literature of Latin American and U.S. Latino Cultures. (3 h)**

A socio-historical study of theories on culture, sexual politics, and race in relation to literary texts, lyrics of popular music, and art of Latin America and the diaspora.

**SPA 657. Spanish-American Short Story. (3 h)**

Intensive study of the 20th-century Spanish-American short story with emphasis on major trends and representative authors, such as Quiroga, Rulfo, Borges, Cortázar, Donoso, García, Márquez.

**SPA 658. Spanish-American Novel. (3 h)**

Study of the novel in Spanish America from its beginning through the contemporary period.

**SPA 659. Spanish-American Theatre: From Page to Stage. (3 h)**

Study of the transition of a dramatic work from text to performance and the role of Spanish-American theatre as a vehicle for cultural values and sociopolitical issues. Includes rehearsals for the public staging of selected one-act plays. Proficiency in Spanish and willingness to act on stage are required.

**SPA 660. Colonial Spanish America. (3 h)**

Explores the early Spanish-American colonial period alongside contemporary intellectuals' attempt to return to and recover the historical past. Readings include 15th- and 16th-century codices, post-conquest indigenous writings, Iberian chronicles and letters, as well as 20th-century documents.

**SPA 661. Fiction Literatures of the Mexican Revolution. (3 h)**

Explores 20th-century Mexican cultural production as it relates to the Mexican Revolution (1910-1920). Readings include novels, short stories, popular poetry, and historiographic texts. Attention to Mexican muralism and cinema, and special emphasis on relationships between literature, history, and contemporary politics.

**SPA 670. Film Adaptations of Literary Works. (3 h)**

The development of Spanish from an early Romance dialect to a world language. Study of ongoing changes in the language's sounds, grammar, and vocabulary system, with a focus on the effects of cultural history and relationships with other languages.

**SPA 671. Contrastive Spanish/English Grammar and Stylistics. (3 h)**

Advanced study of structure and style in a variety of Spanish texts, with an in depth approach to idiomatic expressions and some back/cross translation exercises.

**SPA 679. Special Topics in Hispanic Linguistics. (3 h)**

Investigation of key areas in Spanish languages research, such as dialectology, history, language acquisition, and usage.

**SPA 681. Spanish Translation. (3 h)**

Introduces translation strategies through practice, with emphasis on Spanish into English. Focuses on translating in domains such as social science, computing economics, the entertainment industry, banking, and journalism.

**SPA 682. Spanish/English Interpreting. (1.5, 3 h)**

Introduction to strategies of interpreting from Spanish into English, primarily. Intensive lab practice course to develop basic skills in consecutive/escort/simultaneous interpreting. Some voice-over talent training is also included.

**SPA 683. Medical and Scientific Translation. (3 h)**

In this elective course, students will develop and refine a practical translation skill set within the scientific and medical domains. In addition, students will gain familiarity with textual conventions that govern source and target texts within these domains and deepen their understanding of both Spanish and English as language for special purposes. Apart from translation proper, students will also be able to analyze texts for register, style, tone and content to determine the most appropriate process to achieve the highest quality translation. Finally, students' research skills will improve through the examination of available resources and the creation of domain-specific resources.

**SPA 684. Internships for Spanish Translation Localization and Spanish Interpreting. (2-4 h)**

Under faculty supervision, a student undertakes a translation/interpretation project at a translation bureau or translation department of a company/public organization. A community service-oriented internship is preferred for interpreting.

**SPA 687. Intro to Spanish for Business. (3 h)**

Introduction to Spanish vocabulary and discourse in business. Emphasizes oral and written practices, reading, and Hispanic business culture as well as a comprehensive analysis of different business topics and areas. Two mid-term essays and final essays are required.

## Statistics (STA)

**STA 610. Probability. (3 h)**

Distributions of discrete and continuous random variables, sampling distributions. Covers much of the material on the syllabus for the first actuarial exam. This course is cross-listed as MST 657.

**STA 611. Statistical Inference. (3 h)**

Derivation of point estimators, hypothesis testing, and confidence intervals, using both frequentist and Bayesian approaches. P-STA 610 or MST 657 or POI.

**STA 612. Linear Models. (3 h)**

Theory of estimation and testing in linear models. Topics include least squares and the normal equations, the Gauss-Markov Theorem, testing general linear hypothesis, model selection, and applications. P-STA 610 or MST 657, or POI.

**STA 652. Networks: Models and Analysis. (3 h)**

A course in fundamental network theory concepts, including measures of network structure, community detection, clustering, and network modelling and inference. Topics also draw from recent advances in the analysis of networks and network data, as well as applications in economics, sociology, biology, computer science, and other areas.

**STA 662. Multivariate Statistics. (3 h)**

Multivariate and generalized linear methods for classification, visualization, discrimination, and analysis.

**STA 663. Introduction to Statistical Learning. (3 h)**

An introduction to supervised learning. Topics may include lasso and ridge regression, splines, generalized additive models, random forests, and support vector machines. Requires prior experience with R programming.

**STA 664. Computational and Nonparametric Statistics. (3 h)**

Computationally intensive methods to fit statistical models to data. Topics include simulation, Monte Carlo integration and Markov Chain Monte Carlo, sub-sampling, and nonparametric estimation and regression. P-MST 657 or POI.

**STA 668. Time Series and Forecasting. (3 h)**

Methods and models for time series processes and autocorrelated data. Topics include model diagnostics, ARMA models, spectral methods, computational considerations, and forecasting error. P-STA 610 or MST 657, or POI.

**STA 679. Advanced Topics in Statistics. (1-3 h)**

Topics in statistics not considered in regular courses or which continue study begun in regular courses. Content varies.

**STA 682. Readings in Statistics. (1-3 h)**

Reading in statistical topics to provide a foundational basis for more advanced study in a particular area. May not be used to satisfy any requirement in the MA degree with thesis. No more than three hours may be applied to the requirements for the MA degree without thesis. May be repeated for credit for a total of 3 hours.

**STA 683. Individual Study. (1-3 h)**

A course of independent study directed by a faculty adviser. By prearrangement.

**STA 710. Stochastic Processes and Applications. (3 h)**

This course includes the axiomatic foundations of probability theory and an introduction to stochastic processes. Applications may include Markov chains, Markov Chain Monte Carlo with Metropolis-Hastings, Gibbs sampling, Brownian motion, and related topics, with an emphasis on modern developments. This course is cross-listed as MST 757. P-STA 610 or MST 657 and MST 611 or POI.

**STA 711. Advanced Statistical Inference. (3 h)**

Advanced mathematical treatment of point estimators, hypothesis testings, and confidence intervals, using both frequentist and Bayesian approaches. P-STA 610 or MST 657, or POI.

**STA 712. Generalized Linear Models. (3 h)**

Extensions of the classical linear model to cover models for binary and count data, ordinal and nominal categorical data, and time-to-event data, along with numerical maximization techniques needed to fit such models. Additional topics may include longitudinal data, the Expectation-Maximization algorithm, non-linear models, or related topics. P-STA 612 or POI.

**STA 720. Bayesian Analysis. (3 h)**

Fundamental concepts, theory, and computational methods for Bayesian inference. Topics may include decision theory, evaluating Bayesian estimators, Bayesian testing and credible intervals, Markov chain Monte Carlo methods, and hierarchical models. P-STA 610 or MST 657, or POI.

**STA 779. Topics in Statistics. (3 h)**

Topics vary by instructor. May be repeated for credit.

**STA 791. Thesis Research. (1-9 h)**

May be repeated for credit. Satisfactory/Unsatisfactory. P-POI.

**STA 792. Thesis Research. (1-9 h)**

May be repeated for credit. Satisfactory/Unsatisfactory. P-POI.

## Sustainability (SUS)

**SUS 600. Communications Workshop. (1 h)**

Effective, persuasive communication requires clarity, engaging language, sound reasoning, and an informed appreciation of audience. To that end, this workshop seeks to equip students as change agents that can effectively articulate a vision for ways to invest in and contribute to creating a sustainable future. Specifically, the Communication Skills Workshop teaches you how to apply such concepts to forms of written (e.g., memos) and oral (e.g., PowerPoint presentations) communication typically found in business and non-profit organizational settings. The workshop includes numerous interactive lessons that focus on the essentials of dynamic and economical writing, argument and evidentiary analysis, engaging and well-researched oral presentations, and audience adaptation.

**SUS 601. Professional & Leadership Skills. (1 h)**

This workshop will support students in understanding and developing the skills required to be thought leaders in the sustainability field. Learning will focus on leadership skills required to create meaningful change in various organizational settings. Topics include influencing others, collaborating in teams, managing conflict and working across cultures. To enhance self-awareness we will employ self-assessments and the creation of a program-long development plan.

**SUS 602. Scientific Literacy. (1 h)**

In this course we will focus on the nature of scientific inquiry, and explore how it is pursued, reported, and applied. In particular, we will focus on the intersection of climate science and the scientific study of attitudes/beliefs about climate science. We will also explore the projected impacts on and policy responses from the state of North Carolina.

**SUS 603. Natural Capital Valuation and Ecosystem Services. (1 h)**

This workshop introduces the concept of Ecosystem Services and Natural Capital Valuation in theory and practice. It focuses broadly on the concept of natural capital and the process of valuing ecosystem services, and more closely on how the process is working at multiple scales in policy, markets and projects. Ecosystem services is a new and rapidly growing field that crosses science, policy and management. Practitioners have varied expertise; from spatial modelers, research scientist, and economists, to policy makers and social scientists. We will cover some of the historical development and current state of the ecosystem services markets specifically for carbon and water. Critical spatial tools of GIS and spatial modeling of ecosystem services are also introduced.

**SUS 691. Special Topics. (1-3 h)**

Examination of topics not covered in the regular curriculum.

**SUS 694. Internship. (1-4 h)**

Internships are available for a student who has completed one year of graduate study and desires experience working in the private sector or a nonprofit or government agency. Internships typically take place during the summer months and last for three months, although the timing and duration may be adjusted to satisfy each student's needs and the type of internship available. Credit hours are adjusted based on the length of the internship. The student receives a written evaluation from the host organization mentor and is required to submit a written report of his/her work. May be repeated for up to 4 credits.

**SUS 695. Individual Study. (1-3 h)**

Opportunity to pursue a topic covered in a regular course in greater depth or topics relevant to the student's field of concentration. Usually involves extensive reading and tutorial sessions with a faculty supervisor. Written papers may be required. May be repeated for up to 6 credits.

**SUS 701. Global Human Systems. (3 h)**

Sustainability is a human term with context specific connotations—in other words deployments of the term in the public sphere often tell us more about the perceptions and values of those utilizing the term than they do about what is central to achieving sustainability. In this course we will interrogate the ways in which uses of this human term intersect with earth systems and politics. Students will gain a basic understanding of earth systems science, gather historical data related to human impacts on earth systems, and study human values as they relate to the other-than-human entities with which they share their habitats. Fundamentally, the goal of this course is to go beyond the traditional disciplinary divides (natural science, social sciences, and humanities), to begin to sketch the outlines of each of these areas while highlighting important convergences and differences.



**SUS 702. Sustainable Organizational Mgt. (3 h)**

Are organizations part of the problem or part of the solution – or both? What practices will produce desirable organizational outcomes and improve the environment? This course will provide information to address these questions. It will include an overview of the presence and impact of sustainable practices in private and public sector organizations. The course information and experiences will equip participants with the ability to think critically about the trade-offs inherent in the relationship between certain organizational decisions and sustainability best practices.

**SUS 703. Natural Science for Sustainability. (3 h)**

Students will explore qualitative and quantitative chemical and physical aspects of sustainability for waste, water, air, and energy. The course provides an in-depth scientific understanding of the most important nonrenewable and renewable energy sources. Students will study the world's present and future energy needs, focus on energy production, consumption, and environmental impact, and explore ways in which these principles relate to sustainability. The sustainability and environmental trade off of different energy systems will be studied.

**SUS 704. Environmental Law & Policy. (3 h)**

To understand how we can move toward sustainability domestically and abroad, we must understand how and why law and policy are developed, challenged, and changed. This course will look at the historical development of environmentalism and the movements that provided the impetus for modern environmental legal regimes, as well as case studies illustrating contemporary environmental issues. We will cover common law and statutory remedies for private citizens, principles of federalism and separation of powers, agency rulemaking, the role of the judiciary in environmental law and policy, and international environmental law. Each case study in this course will emphasize one of the major U.S. environmental statutes, so that upon completion of the course you will not only have a foundation in law and policy processes but also a familiarity with the most significant U.S. statutory schemes.

**SUS 705. Applied Sustainability 1. (2 h)**

This course will introduce you to the practice of building sustainable systems in today's world. In it you should improve your ability to understand design principles for sustainability, assess sustainability actions of organizations at all levels, use different frameworks to track and assess sustainability, and apply your skill sin effectively managing change. The objective of this course is for us to learn how to advance sustainability today, see what might be done in the future, and identify opportunities that exist for each of us. We will use a variety of learning experiences, including site visits, group presentations and in class presentations by outside leaders.

**SUS 706. Applied Sustainability: Creativity and Impact. (2 h)**

Applied Sustainability is crafted to experience sustainability in action through Human Centered Design. Human Centered Design is a philosophy, a set of abilities, a set of mindsets, and a set of practices that proves invaluable in addressing the sustainability issues of our time. This way of working is a making based approach to problem solving and solution development. You will apply and practice the mindsets and abilities of design in different scenarios and different scales to address sustainability problems, and develop and build on new to the world ideas. This class is project oriented and team based. This course as a journey culminates with a client/community based sustainability practicum. Overall, this class emphasizes new ways of approaching work and life.

**SUS 710. Sustainable Urban Planning and the Built Environment. (3 h)**

This course will explore the tenets of sustainable construction and high performance building practices and prepare students for the U.S. Green Building Council's LEED Green Associate Exam. LEED, or Leadership in Energy & Environmental Design, is a certification program that recognizes best-in-class building strategies practices. Sustainable architecture and construction seeks to minimize the negative environmental impact of buidlings by efficiency and moderation in the use of materials, energy, and development space. This course widens the conversation to include how buildings and other community planning impacts urban environments. The focus of this planning is to satisfy construction and design goals with sustainable outcomes.

**SUS 715. Environmental Sustainability in a Global Context. (2 h)**

Students will develop practical problem-solving skills that address the challenges of climate change in an international context. This experiential learning course employs a variety of interdisciplinary approaches to explore concepts related to climate change adaptation. Students will interact with practitioners and stakeholders in various economic and political sectors to develop a group client-based project that supports real policy and management decisions on sustainable practices. Students will have the opportunity to travel internationally to visit affected areas and meet with government officials, researchers, conservationists, and economic planners. This course offers students a firsthand opportunity to conduct field research, hone interviewing practices, draft policy reports, and engage clients.

**SUS 720. Sustainability Practices & Policy in a National Context. (1 h)**

This seminar is designed specifically for graduate students in sustainability, students who are early and mid-career professionals looking to transition into careers in sustainability or environmental protection through business, government, NGOs, policy institutes or non-profits. Students will hear from and meet with a range of experts in climate change and sustainability, learn about the work they do and get a clear understanding of the challenges they face (practically and politically) and the impact they can have. This seminar will model possible career paths and provide networking opportunities.

**SUS 791. Thesis Research. (1-4 h)**

Research directed toward fulfilling the capstone requirement. May be repeated for up to a total of 4 credits.

## Translation Interpret Studies (TIS)

**TIS 684. Internship. (1-3 h)**

The internship requires 60 hours of shadowing, observing, gathering data and interpreting/translation work in a professional interpreting, translation, educational or healthcare setting, depending on the student's chosen track.

**TIS 731. Applied Interpreting Studies. (3 h)**

This course explores connections between research and practical issues in studies of interpreting (simultaneous, consecutive, bilateral and other modalities). It focuses on the interdisciplinary of the interpreting field and, based on case studies, examines the interface between interpreting as a profession, research in interpreting studies and the teaching of interpreting. It includes a research project.

**TIS 732. Methodology of Teaching Interpreting. (3 h)**

his course discusses syllabus design and lesson planning for teachers of interpreting in a field-specific context. It focuses on the development of interpreting skills, including use of recent technological advancements. It explores classroom management options and strategies for providing feedback to students. It also covers internship design methods, including an on-site observation of various interpreting settings.

**TIS 733. Applied Translation Studies. (3 h)**

This course examines the theory and practice of translation from a variety of linguistic and cultural angles. It introduces key concepts such as relevance, equivalence, skopos, back-translation, and explores critical approaches, depending on the translated text types.

**TIS 734. U.S. Heritage Speakers. (3 h)**

This course provides a comprehensive introduction to the fields of heritage languages, bilingualism, and bilingual education from a cross-disciplinary perspective. It covers a wide variety of topics, including individual and societal conceptions of heritage and dominant languages, general bilingual educational issues, bilingualism and multilingualism as they relate to identity, political and ideological issues, Spanish in the U.S. among many others.

**TIS 735. Discourse Organization and Interpreting. (3 h)**

This course will explore the links between social situations, interlocutors, and the functional aspects of communicative events. The course will focus on several important methodological approaches that have been developed to do discourse analysis in as much as they highlight important features of translation and interpreting. We will review the varied traditions around meaning-making, including sociolinguistics, conversation analysis, critical discourse analysis, and discursive psychology. Readings will tie in traditional topics in discourse analysis with specific issues in translation and interpreting. This course will link theory to practice. One session per week will be devoted to practical, hands-on activities using real world data in various formats: written transcripts, aural speeches, or videos.

**TIS 736. Organizational Behavior and Interpreting. (3 h)**

This course is designed to apply organizational behavior theories into the interpreting field in order to bring about a better understanding of how individual interpreters or interpreter teams actually behave in large-scale project/organizational setting. Particular emphases are placed on interpreter's roles and on how to evaluate interpreter's performance, motivate interpreters, and maintain a high level of interpreting services. This course prepares students to enter managerial positions in translation/interpreting companies or organizations.

**TIS 738. Editing and Revising for Translators. (3 h)**

This course covers various aspects of the editing of translated English text, from copy editing to more substantive forms. Rules of grammar, orthography and principles of composition are reviewed in the context of specialized discourses. Focus is placed on practical issues and editing tasks commonly faced by translators.

**TIS 742. Spanish Specialized Translation. (3 h)**

Develops and refines a practical translation skill set within specialized domains, for example, technology, law, international relations, media. Students gain familiarity with textual conventions that govern source and target texts in specialized contexts and deepen their understanding of both Spanish and English as language for specific purposes.

**TIS 750. Contrastive Chinese-Eng Gramm. (3 h)**

Advanced study of structures and vocabulary. Exploration of general principles behind 'atom-like' rules and the main lexical dichotomies, and how implications for meaning help in choosing the best option. Discussion of structures that are usually taught as idiomatic but are more compositional than previously thought: subject-predicate vs. topic-comment, verb-particle, verb-complement, serial verb construction, relative clause construction, reduplication, imperative, negation, adposition, etc.

**TIS 751. Chinese-English Translation. (3 h)**

Development of advanced translating skills through the practice of bidirectional translation with a strong emphasis on Chinese into English translating. Some back translation exercises will be offered as part of this course.

**TIS 752. Chinese-English Specialized Translation. (3 h)**

Develops and refines a practical translation skill set within the specialized domains such as medicine, science, business, etc. In addition, students will gain familiarity with textual conventions that govern source and target texts within these domains and deepen their understanding of both Chinese and English as language for special purposes. Apart from translation proper, students will also be able to analyze texts for register, style, tone and content to determine the most appropriate process to achieve the highest quality translation. Finally, students' research skills will improve through the examination of available resources and the creation of domain-specific resources.

**TIS 755. Chinese-English Interpreting. (3 h)**

Chinese-English Interpreting develops strategies for community, conference, escort and other types of interpreting. Current employment opportunities in the field of interpreting will be also briefly presented. In class work will focus on learning and practicing interpreting techniques. Individual, at home, preparation - besides the assigned readings and interpreting exercises - will also include a strong terminology enhancement.

**TIS 760. U.S. Landscapes: Systems, Culture and Norms. (3 h)**

This course is designed for international students to increase their knowledge of US socio-political structures and Anglo-American cultural identity through the study of U.S. history, politics and popular traditions.

**TIS 785. Applied Research Project. (3 h)**

The applied research project will establish a rigorous connection between the practical experience in the workplace and the more theoretical experience in research and in the classroom. The applied research project will be divided in two components: during the fall semester (3 credit hours) students will learn about general research methodology and receive individual guidance to choose between the research project options. During the spring semester (3 credit hours) students will complete the research project under supervision of a project director.

**TIS 786. Special Topics. (1-3 h)**

Examination of topics not covered in the regular curriculum. May be repeated for credit.

**TIS 789. Independent Study. (1-3 h)**

Independent research project to meet the needs and interests of selected students to be carried out under the direction of a faculty member. Must be approved by program director. May be repeated for credit.

## Women's and Gender Studies (WGS)

**WGS 601. Feminist Political Thought. (3 h)**

Introduces feminist thought and its implications for the study and practice of political theory. Topics include feminist critiques of the Western political tradition and schools of feminist political theory.

**WGS 602. Studies in Gender and Literature. (3 h)**

Addresses ways in which gender and literary practices intersect in various cultures and historical periods. Attention will be paid to the role of literature in formulating, subverting, or resisting gender norms. May be repeated for credit if topic differs.

**WGS 604. Transgender History, Identity, and Politics. (3 h)**

Explores the experiences of and responses to transgender, gender non-conforming, and intersex (TGI) people in nineteenth- and twentieth-century America. We will examine how scientific/medical authorities, legal authorities, and everyday people have understood and responded to various finds of gender non-conformity.

**WGS 605. Film Lab in Women's, Gender, and Sexuality Studies. (3 h)**

Viewing, dissecting, and analyzing films. Fosters the skills to create complex cinematic analyses and explore feminist theoretical issues related to spectatorship.

**WGS 606. Queer Public Histories. (3 h)**

This course explores how public history projects (oral histories, museums, archives, documentaries) document gay, lesbian, and queer communities in the U.S. Discusses how historical and contemporary LGBTQ stories have been collected and examines the various queer identities that merge through this process.

**WGS 609. Gender, Humanities, and the Environment. (3 h)**

Provides a framework for understanding how the Humanities can contribute to civic conversations about environmental change, examining in particular the role of women environmentalist and eco-feminist in constructing global environmental narratives.

**WGS 610. Gender, Power, and Violence. (3 h)**

A research-centered study of various issues related to violence, power, and gender in American society. Emphasizes sociological analysis of competing theoretical explanations of violence with respect to race, class, gender, religion, and sexual orientation.

**WGS 616. Introduction to Feminist Theory. (3 h)**

Introduction to key issues, questions, and concepts in feminist thought, which reflect a range of perspectives and methodologies.

**WGS 617. Introduction to Sexuality Studies. (3 h)**

Provides an interdisciplinary grounding in the foundations of queer culture and studies, with a critical interrogation of sex, gender, sexuality, pleasure, and embodiment in popular culture, literature, health, science, and politics.

**WGS 618. Film Lab in Women's, Gender, and Sexuality Studies. (1.5 h)**

Viewing, dissecting, and analyzing films. Fosters the skills to create complex cinematic analyses and explore feminist theoretical issues related to spectatorship.

**WGS 619. Women Playwrights. (3 h)**

Examination of selected plays and/or performance texts by women. Focus varies, for example, looking at works by contemporary American women or early women dramatists such as Hrosvitha, Sor Juana, and Aphra Behn.

**WGS 622. Introduction to Women's and Gender, and Sexuality Studies. (3 h)**

An interdisciplinary course that integrates materials from the humanities and the sciences, taught by WGS faculty representing the least two fields. Topics include critical methods and practical solutions, history and theory of women's gender, and sexuality studies, women in culture and society, and cross-cultural issues of gender, ethnicity, social class, disability, and sexual orientation.

**WGS 623. Feminist, Womanist, and Mujerista Theologies: Constructive Perspectives on Christian Thought. (3 h)**

Examination of selected plays and/or performance texts by women. Examines major topics in Christian theology from African American (womanist), Latina/Hispanic (mujerista), and queer perspectives.

**WGS 624. Readings in Queer Theology. (1.5 h)**

This seminar-style reading course surveys classic and new works in queer theology. Queer theology transgresses dominant constructions of gender identity and sexuality; and as such, it can be seen as an expression of the Christian gospel that subverts human understandings of life, community, and the divine. The course explores biblical and Christian theological perspectives on sexuality, social constructions of sexuality, and issues such as power, marriage equality, and sexual ethics.

**WGS 625. Feminist Leadership Project. (1.5 h)**

Explores the principles of feminist leadership to deepen self-awareness about personal leadership skills and gain tools for creating feminist social change. This highly interactive class welcomes students who are new to feminist thought/activism as well as those seeking to deepen their engagement with feminism. Satisfactory/Unsatisfactory.

**WGS 626. Telling Women's Lives: Writing about Entrepreneurs, Activists, and Thought Leaders. (3 h)**

This course will use an interdisciplinary approach to address fundamental issues of female leadership by examining recent developments in long- and short-form narratives about women (biography, essays, profiles) and employing journalistic tools to interview and write profiles of women entrepreneurs, activists, and thought leaders.

**WGS 627. The Feminist Book Society. (1.5 h)**

A reading course designed to introduce students to classic and contemporary feminist texts. Emphasis on close reading, discussion, and writing. May be repeated for credit if texts differ.

**WGS 629. Politics of Gender and Sexuality: Cross-Cultural Perspectives. (3 h)**

Examines cultural constructions of gender and sexuality from a cross-cultural perspective and the relationship between feminism and cultural rights activism through time. Emphasizes how varied forms of feminisms are constituted within diverse social, cultural, and economic systems. Students consider how feminists are negotiating positions at the intersection of cultural and human rights.

**WGS 630. Gender and the Politics of Health. (3 h)**

This course examines the intersections of gender, medicine, health, and illness, with a focus on the U.S. context. Topics include: reproduction, mental illness, breast cancer, heart disease, and HIV/AIDS, among others. We explore the following questions: How have women and men interacted differently with the field of medicine, as healers, patients, and subjects of medical research? How do social and cultural norms about gender influence the definition of illness categories? What role does medicine play in defining and enforcing the boundaries of what is considered socially acceptable in terms of gender? How does gender as social role affect health outcomes?

**WGS 632. Men, Masculinity, and Power. (3 h)**

Introduces the burgeoning interdisciplinary field of masculinity studies. Students will explore the social, historical, and cultural constructions of masculinity and male roles (as fathers, sexual and romantic partners, and workers) and how these constructions differ according to race, class, sexuality, etc. In addition, the course will examine how norms about masculinity simultaneously empower men as a group and many individual men, while also disadvantaging any individual men and regulating the behavior of all men. Students will explore possibilities for challenging hegemonic forms of masculinity and for creating new types of masculinity.

**WGS 633. Sexual Politics in the United States. (3 h)**

This course explores the politics of sexuality in the United States. Drawing on feminist scholarship, queer theory, and lesbian, gay and transgender studies, we will explore different historical and theoretical approaches to thinking about issues of power and sexuality. We will discuss sexual identities and cultures, state regulation of sexuality, sexual commerce, and cultural representations of sexuality, among other topics. Throughout we will examine how other social categories such as race, class, gender, and disability intersect with the politics of sexuality.

**WGS 640. Feminist Philosophy. (3 h)**

Examines feminist approaches to philosophical theorizing. Topics may include feminist critiques of the scope and methods of mainstream philosophy, feminist approaches to ethics, epistemology and philosophy of language, and feminist conceptions of the self, sexuality, and moral agency.

**WGS 645. Girls Gone Wild: A Century of Misbehavior. (3 h)**

This course analyzes what made girls and women “bad” and “wild” in the twentieth-century United States, and how such judgments changed over time. This class engages closely with novels, short stories, movies, comics, podcasts, and an opera with an eye to what behaviors were considered appropriate, and how they interrelated with sexual attraction, with economics, and with love. We examine the relationship between being configured as a sexual object (a recipient of desire) and a sexual subject (a possessor of desire) and come to a critical understanding of how the “proper” and “improper” forms of both were constantly in flux. We ask how race, ethnicity, and queerness interacted with hegemonic concepts of beauty and desire, and whether “masculinity” and “femininity” are necessarily attached to men and women. We read theories of sex and gender, examine concepts of projection and male hegemony, and ask how men as well as women are shaped by rules of appropriate behavior.

**WGS 646. Visual Narratives: Image, Sequence, Story. (3 h)**

This class investigates the relationship of image, sequence, and story in typography, comics, woodcut novels, and photographic books, and films, as well as fiction and poetry with unusual visual elements, and then asks how these various elements offer different visual and textual expressions of sexuality. Students will conduct formalist analyses and further investigate visual narrative through creative exercises with the goal of developing an aesthetic sensibility and a technical vocabulary that enable them to discuss visual narrative with precision. Please note that some visual narrative will include graphic scenes of sexuality.

**WGS 647. Joan Didion/Edmund White: Personal/History. (3 h)**

This course examines Didion and White, two of the most important American writers of the past fifty years. Both are known for their journalism as well as their fiction, and their interest in U.S. cultural and political history, especially in terms of gender and sexuality, permeates their novels. This course analyzes three works by each author, developing themes from motherhood, sexuality, imperialism, rebellion and AIDs.

**WGS 649. Invert, Pervert, Bull Dagger, Queen: U.S. Queer Fiction in the 20th Century. (3 h)**

This class explores the history of lesbians, gay men, bisexuals, the transgendered, and other queers through fiction by and about them written over the last century in the United States. We also consider biography, artifacts of popular culture, comics, drama, and film. Topics include the relationship between homosexual desire and queerness in a broad sense; LGBTQ children; biological and psychological understandings of sexual orientation; and how social construction informs sexual identity and desire.

**WGS 650. Biocultural Perspectives on Women and Aging. (3 h)**

Examines biological, socio-psychological, and cultural issues affecting older women.

**WGS 651. Race and Ethnic Diversity in America. (3 h)**

Different race and ethnic experiences are examined through an institutional approach that examines religion, work, gender, schooling, marriage patterns, and culture from a cross-cultural perspective. Grand theoretical schemes like the “melting pot” are critiqued for their relevance in an age of new cultural expectations among the many American ethnic groups.

**WGS 658. Mothers and Daughters Literature and Theory. (3 h)**

Examines literature and feminist theories on motherhood and the mother-daughter relationship. A cross-cultural perspective is taken.

**WGS 659. Fathers and Daughters. (3 h)****WGS 662. Feminism and Theatre. (3 h)**

Introduces the student to the intersection of theater and feminism and experience its interdisciplinary lineage and academic interventions. Students will learn and apply feminist theory which looks beyond the conventional theater for a continuum of performance that includes play, ritual, sports, everyday life and social roles, as well as performance art, global and intercultural performance. Engaging with various feminist theoretical approaches from radical and liberal feminism to intersectional and transnational feminism, students will be encouraged to critically examine race, class, gender, sexuality, ethnicity, and nationality expressed on and offstage. Through readings, discussions, lectures, research and creative assignments, indoor and outdoor classroom activities, and campus events, students will explore historical and socio-political factors entangled with representation, identification, and spectatorship, and strengthen their capacity to exercise feminist practice in theater and performance.

**WGS 663. Gender and Sexuality in Contemporary Korea. (3 h)**

This course will examine gender and sexuality in Korean TV, film, K-pop, protests, and everyday performances, focusing on diverse socio-political issues within and beyond the Korean Peninsula. Topics include: the evaluation of feminism, #metoo movement, LGBTQ cultures, sex work, aging, plastic surgery industry, postcolonial and post-Korean war conflicts, and transpacific affinities.

**WGS 664. Women of Color, Feminism, and the Politics of Resistance in the US. (3 h)**

Examines historical and contemporary issues and current events affecting the lives of African American, Asian American, Latina, and Native American women. Exploring major theoretical and practical viewpoints in women's studies scholarship, the course will reveal the importance of intersectionality between race, gender, sexuality, class, and/or ethnicity in the everyday lives of multicultural women. Through arts-based civic engagement projects and activities, this course will also encourage students to formulate their own language of resistance against multiple forms of oppression.

**WGS 665. Transnational Asia and Asian American Feminism. (3 h)**

This course will analyze historical, socio-political, and cultural events as well as contemporary issues structuring the lives of Asian American women and queer community. Students will learn intersectional and transnational feminist approaches to examine race, class, gender, sexuality, ethnicity, nationality, and kinship in Asian American art and activism.



**WGS 671. Making Sense of the News through a Feminist Lens. (1-3 h)**

Inquiry into news literacy from a feminist perspective, with the intention to identify gender bias and consider questions of empowerment, exclusion, consumerism, and how to navigate the digital landscape to distinguish verified, reliable news from propaganda.

**WGS 677. Special Topics. (1.5-3 h)**

Includes such a wide range of women's, gender, and sexuality studies topics as gender issues in the 21st century, critical approaches to gender issues, and the emergence of feminist thought. May be repeated for credit if topic differs.

**WGS 680. Sexuality, Law, and Power. (3 h)**

Explores a wide variety of issues related to sexual identity and orientation by looking at the ways in which law can constrict development as well as a catalyst for change. Examines how religion and popular morality shape the law, and are shaped by it.

**WGS 681. Gender and the Law. (3 h)**

This course will examine how the law affects women's lives in a number of contexts. The class will consider a number of different areas, including but not limited to employment, education, family responsibilities, violence against women, and other issues affecting women's bodies, including pornography and prostitution. The class will also review a number of feminist legal theories and issues relating to the intersection of gender with race and class.

**WGS 683. Race, Gender and the Courts. (3 h)**

This course examines the impact of state and federal court cases upon the evolution of race and gender relations in the U.S. from 1789 to the present. Each case is placed within the political, economic and social historical context for the given time periods. Race includes Native Americans, African Americans, Asian Americans, and Latino Americans. This class will analyze government intervention, inaction, and creative interpretation.

**WGS 688. South Asian Women: Religion, Culture, and Politics. (3 h)**

Using a feminist and post-colonial perspective, and taking into account the histories, experiences, and lives of South Asian women this course, examines the intersection of religion, race, and gender from both a theoretical and a practical point of view. It focuses on issues of representation and identity formation, recognizing how categories such as "South Asian" and "women" become tools for a simultaneous understanding of both culture and gender, creating a place for both oppression and empowerment.

**WGS 696. Independent Study. (1-3 h)**

Independent projects in women's gender, and sexuality studies, which either continue study begun in regular courses or develop new areas of interest. By prearrangement. May be repeated for credit.

**WGS 697. Public Engagement in Women's, Gender, and Sexuality Studies. (1.5, 3 h)**

This class provides an opportunity for students to engage in work and research that is shared with the broader public, either on campus or in a local community. A maximum of 3 hours may apply to the major or minor.

**WGS 698. Theory and Practice of Women, Gender, and Sexuality Studies. (3 h)**

Examines the major themes and terminology in Women, Gender, and Sexuality Studies, with focus on its diverse and multicultural expressions through time. Themes to be explored include schools of feminisms, interlocking systems of oppression and the connection between theory and practice.

**WGS 699. Research Seminar in Women, Gender, and Sexuality Studies. (3 h)**

A capstone, research-centered course in which students complete a significant research or creative project of their choosing situated within the field of Women's, Gender, and Sexuality Studies.

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Allyn Howlett, PhD	Assistant Dean (Bowman Gray)	ahowlett@wakehealth.edu
Sandra Dickson, PhD	Senior Associate Dean (Reynolda)	dicksosj@wfu.edu
Jennifer Rogers, PhD	Associate Dean for Students (Reynolda)	rogersjl@wfu.edu
Ron Von Burg, PhD	Associate Dean for Academic Initiatives (Reynolda)	vonburr@wfu.edu
Chaowei Zhu, PhD	Assistant Dean for Global Initiatives (Reynolda)	zhuc@wfu.edu

## Graduate Council (3 year terms)

Name	E-mail	Term
Ellen Kirkman, Mathematics & Statistics	furrrm@wfu.edu	Term Expires: 2022*
Grey Ballard, Computer Science	ballard@wfu.edu	Term Expires: 2022
Leslie Poole, Biochem & Molecular Bio	lbpoole@wakehealth.edu	Term Expires: 2022
Robert Hampson, Neuroscience	rhampston@wakehealth.edu	Term Expires: 2022*
Tracy Criswell, Int Phys & Pharm	tcriswel@wakehealth.edu	Term Expires: 2022
Adam Hall, Biomedical Engineering	arhall@wakehealth.edu	Term Expires: 2023
Fred Salisbury, Physics	salsbufr@wfu.edu	Term Expires: 2023
Sarah McDonald Esstman, Biology	mcdonasm@wfu.edu	Term Expires: 2023
Ravi Singh, Cancer Biology	rasingh@wakehealth.edu	Term Expires: 2024*
Elizabeth Jensen, Clin Pop & Transl Sci	ejensen@wakehealth.edu	Term Expires: 2024*
Jeff Katula, Health & Exercise Science	katulaj@wfu.edu	Term Expires: 2024
Christian Waugh, Psychology	waughce@wfu.edu	Term Expires: 2024

\*serving second term

## Graduate Faculty Representative to Faculty Senate (4 year term)

Name	E-mail	Term
Graca Almeida-Porada, Inst for Reg Med	galmeida@wakehealth.edu	Term: 2018-2022
Melissa Shields Jenkins, English	jenkinms@wfu.edu	Term: 2021-2025

## The Graduate Faculty

Please visit the Graduate School's website (<https://graduate.wfu.edu/faculty-search/>) for a current list of all graduate faculty with their year of appointment and department affiliations.



# THE ADMINISTRATION

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## Graduate School of Arts and Sciences

Dwayne Godwin (1997)  
Dean, Bowman Gray Campus  
BA, University of West Florida; PhD, University of Alabama (Birmingham)

Bradley T. Jones (1989)  
Dean, Reynolda Campus  
BS, Wake Forest University; PhD, Florida

Sandra Dickson (2009)  
Senior Associate Dean, Reynolda Campus  
BS Ed, Mississippi College; MA, University of West Florida;  
PhD, Florida State University

Jennifer Rogers (2015)  
Associate Dean for Graduate Students, Reynolda Campus  
BA, UNC-Greensboro; MA, Wake Forest, PhD, Syracuse University

Ron Von Burg (2012)  
Associate Dean for Continuing Studies, Reynolda Campus  
BA, BS, Arizona State University; MS, PhD, University of Pittsburgh

## Administration – Reynolda Cabinet

Susan R. Wente (2021)  
President  
BS, University of Iowa; PhD, University of California Berkeley

Rogan Kersh (2012)  
Provost  
BA, Wake Forest University; MA, MPhil, PhD, Yale

Andrew R. Chan (2009)  
Vice President, Innovation and Career Development  
BA, MBA, Stanford

John Currie  
Director of Athletics  
BA, Wake Forest University; MS Tennessee

James J. Dunn (2009)  
Special Assistant to the President & CEO, Verger Capital Management, LLC  
BS, Villanova

Julie A. Freischlag, MD (2018)  
CEO, Wake Forest Baptist Medical Center and Dean of Wake Forest School of Medicine  
BS, University of Illinois; MD, Rush University

Michele K. Gillespie (1999)  
Dean of Wake Forest College  
BA, Rice; MA, PhD, Princeton University

Todd Johnson (2012)  
Vice President and Executive Director, Wake Forest University Charlotte  
BA, UNC; MBA, Wake Forest University

Eric Maguire (2019)  
Vice President for Enrollment  
BA, Muhlenberg College; MA, Indiana University

B. Hofler Milam (2010)  
Executive Vice President and CFO

BS, MBA, Wake Forest University

James Reid Morgan (1979)  
Senior Vice President and General Counsel  
BA, JD, Wake Forest University

Mark A. Petersen (2008)  
Vice President for University Advancement  
BA, Brandeis; MA, University of Southern California

Mary E. Pugel (2005)  
Chief of Staff, President's Office  
BA, University of Washington

Penny Rue (2013)  
Vice President for Campus Life  
AB, Duke University; MA, The Ohio State University; PhD, Maryland

José Villalba (2011)  
Vice President for Diversity and Inclusion and Chief Diversity Officer  
BS, MEd, EdS, PhD, Florida

# THE SCHOOL OF DIVINITY

The course offerings and requirements of the School of Divinity are continually under examination, and revisions are expected.

This Bulletin presents the offerings and requirements in effect at the time of publication and in no way guarantees that the offerings and requirements will remain the same. Every effort is made to provide advance notice of any changes.

## Academic Calendar

### Fall Semester 2021

Date	Day	Event
August 17-19	Tuesday - Thursday	New student orientation
August 19	Thursday	New student advising
August 23	Monday	Classes begin
September 6	Monday	Labor Day (no Divinity classes; University classes meet)
September 7	Tuesday	Last day to add full-term classes
September 22	Wednesday	Incomplete work from past term due to instructor
September 27	Monday	Last day to drop a full-term class
October 1	Friday	December graduation application deadline
October 7-10	Thursday-Sunday	Fall Break (No Thursday and Friday classes)
October 25-29	Monday-Friday	Spring registration advising
November 1-3	Monday	Registration begins for Spring 2022
November 24-28	Wednesday-Sunday	Thanksgiving Break (no classes)
December 3	Friday	Classes end
December 6-11	Monday-Saturday	Fall final exams
December 15	Wednesday	All Fall final grades due by noon

### Spring Semester 2022

Date	Day	Event
January 7	Friday	New student orientation
January 10	Monday	Classes begin
January 17	Monday	Martin Luther King Jr. Holiday (no classes)
January 25	Tuesday	Last day to add full-term classes
February 4	Friday	May graduation application deadline
February 8	Tuesday	Incomplete work from past term due to instructor
February 15	Tuesday	Last day to drop full-term classes

March 5-13	Saturday - 2nd Sunday	Spring Break (no classes)
TBD		Registration for Summer 2022
March 21-25	Monday-Friday	Fall registration advising
March 28-March 30	Monday	Registration begins for Fall 2022
April 15	Friday	Good Friday observed (no classes)
April 27	Wednesday	Classes end
April 29-May 6	Friday - Friday	Spring final exams
May 10 by noon	Tuesday	Final grades for May degree candidates due
May 14	Saturday	Hooding Ceremony
May 16	Monday	Commencement
May 17 by noon	Tuesday	Final grades due for non-degree candidates

# MISSION AND VALUES

The Wake Forest University School of Divinity is a graduate, professional school that is Christian by tradition, Baptist in heritage, and ecumenical in outlook. Consistent with Wake Forest's commitment to academic excellence and in the spirit of the University motto, *Pro Humanitate*, the School of Divinity prepares leaders informed by a theological understanding of vocation. Through imaginative courses and diverse programs of community engagement, students are equipped to be agents of justice, reconciliation, and compassion in Christian churches and other ministries.

## Guiding Principles

**Foster academic excellence:** The School of Divinity faculty fosters critical scholarship across the varied disciplines of theological education through rigorous academic inquiry in the classroom and through research and publication.

**Promote interdisciplinary exploration:** The School of Divinity facilitates interdisciplinary studies that promote dialogue and learning through interaction with faculty and students in other schools and departments of the University.

**Encourage global perspectives:** Through theological reflection, critical inquiry, and ministry formation, the School of Divinity encourages students to explore diverse religious, cultural, and ethnic perspectives within both national and international contexts.

**Embody hospitality:** The School of Divinity seeks to cultivate a community of learners that celebrates diverse religious, racial, ethnic, cultural, gender, and sexual identities and that fosters accessibility for all its members.

**Nurture spiritual growth:** The School of Divinity provides opportunities for spiritual growth and exploration of personal and communal spiritual practices.

**Collaborate with faith communities:** The School of Divinity joins with churches and other faith communities to create opportunities for mutual learning and critical dialogue, including student internships and various forms of mentoring, consultation, community education, and shared advocacy.

**Contribute to the University's mission:** The School of Divinity shares in the University's commitment to *Pro Humanitate* through explorations of religious identity, vocation, social responsibility, and public engagement.

## Hospitality and Language

The Wake Forest University School of Divinity seeks "to cultivate a community of learners that celebrates diverse religious, racial, ethnic, cultural, gender, and sexual identities and that fosters accessibility for all of its members."

Theological commitments lead the faculty to identify language use as one way we embody and practice hospitality. We invite all members of our learning community to join us in paying attention to how we use language and in exploring new language practices that cultivate hospitality. Each faculty member approaches language in different ways depending on our areas of academic expertise and our individual theological perspectives and commitments. We write and speak with an awareness of the historical, political, and societal contexts out of which theological language emerges and how language can impact readers and

listeners. Out of this diversity, faculty conversations about language are lively and vibrant. We invite students to participate in these intentional conversations and to learn to think theologically and creatively about language.

The following suggested practices represent academic expectations for language use in public speech and writing, including scholarly activity (lectures, presentations, discussions, handouts, and publications), communications (official and internal), and worship (sermons, liturgy, and music). The faculty offers these expectations in order to educate leaders who practice hospitality in a range of settings. Each faculty member is committed to discussing these expectations as they relate to course content and assignments and to including guidelines for classroom participation and written work in course syllabi.

## Suggested Practices

**Language about God:** Theologians, ministers, and worship leaders have an opportunity to give voice to the variety and richness of God's presence with God's people. Language used in preaching and worship as well as in academic writing acknowledges and cultivates this richness when it explores diverse ways to write, speak, pray, and sing about and to God.

*Examples:*

1. Our language choices can reflect the richness of the divine. Varied metaphors can be used to speak to and about God. We can name God's attributes. Examples: Rock of Salvation, Fountain of Life, the First and the Last, Refuge and Strength, Shelter from the Storm. We can address God out of our experience of God. Examples: Creator, Mother, Giver of All Good Things, Teacher, Father, Guardian, Redeemer, Friend, Healer.
2. Writers and speakers are encouraged to seek balance when using pronouns to refer to God, for example, alternating between gendered pronouns.

**Language about Creation and Humanity:** Hospitable language acknowledges and affirms the value of all creation and the humanity of all people. While language about God is a theological choice, language about people needs to reflect standard grammatical practices of inclusivity.

*Examples:*

1. Hospitable language should acknowledge and reflect connections between humans and the non-human context upon which life depends.
2. Words like "people," "us," "humanity," "humankind," etc., should be used in place of words that identify all human experience with the experience of men.
3. Non-gendered language should be used whenever possible; for example, writers and speakers should use "clergy" or "clergy person" instead of "clergyman."
4. Writers and speakers should use person-first language such as "persons with disabilities" instead of "the disabled," or "people who live in poverty" instead of "the poor."
5. Language should affirm diverse and multiple racial, ethnic, cultural, gender, and sexual identities by acknowledging varied life narratives. Writers and speakers should avoid language that generalizes human experience (e.g., "all" or "we") and that stereotypes persons or groups. Writers and speakers should use specific examples, rather than generalizations about people or groups, when illustrating a point.



# COMMUNITY

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**Wake Forest University is located in Winston-Salem, North Carolina, a city rich in history and culture.** Salem was founded in 1766 by German Moravians as a congregational town, and the nearby city of Winston was established in 1849. As the area became known for its tobacco, furniture, and textile industries, completion of the railroad line furthered the economic growth of the Winston and Salem communities. In 1913 the two cities merged, and although Winston-Salem is now North Carolina's fourth largest city, it retains its early Southern charm, and visitors can still stroll the cobblestone streets of Old Salem.

In addition to Wake Forest University, Winston-Salem is home to Winston-Salem State University, Salem College, the University of North Carolina School of the Arts, and Forsyth Technical Community College. These institutions, as well as the city's rich offering of cultural, historical, social, and sporting events, combine to make Winston-Salem a unique and pleasurable place to live.

Nestled in the rolling hills of North Carolina's western Piedmont, Winston-Salem offers its visitors and residents the best of many worlds. Winston-Salem is only 2.5 hours away from the Blue Ridge Mountains, and only 4 hours from the beautiful beaches of the Carolinas. The climate is mild, but the Winston-Salem area still experiences all four seasons, with average high summer temperatures around 87° F and average high winter temperatures around 50° F. In addition to the versatility offered by its location, Winston-Salem is also a city of social diversity. The city boasts a cost of living that is at or below the national average.

With an estimated population of over 200,000, Winston-Salem offers most of the activities enjoyed in larger cities with the appeal of a small town. For art lovers, Winston-Salem provides the Southeastern Center for Contemporary Art (SECCA), the Museum of Anthropology, the Museum for Early Southern Decorative Arts, and the Reynolda House Museum of American Art, as well as the Sawtooth Center, which features interactive art exhibits.

Theater buffs will find Winston-Salem a delight. In addition to performances at the city's universities and the University of North Carolina School of the Arts, Winston-Salem is home to several community theaters and the National Black Theatre Festival. Nearby High Point is home to the North Carolina Shakespeare Festival. The RiverRun International Film Festival, one of the premier film festivals in the Southeastern United States, is held in Winston-Salem in spring. The festival showcases a rich blend of works by independent, international, and student filmmakers.

Sports fans and nature lovers will enjoy Winston-Salem as well. The city has over 40 parks and big-time sports excitement with minor league professional baseball and hockey teams.

# ADMISSIONS AND FINANCIAL AID

- Admissions
- Financial Aid and Scholarships
- Graduate Hall Director and Graduate Assistant
- Student Health Insurance
- Tuition, Fees, and Related Costs

## Admissions

### Applying to the Master of Divinity Program

All applicants to the Master of Divinity program must have earned a baccalaureate degree from a member institution of the Association of Universities and Colleges or an institution accredited by a United States agency recognized by the Council for Higher Education Accreditation and possess at least a 2.80 GPA on a 4.00 point scale. A well-rounded liberal arts degree is the best preparation for the MDiv degree program. Prior coursework in religious studies, while not required, is certainly appropriate preparation.

Applicants should show evidence of personal integrity, spiritual and emotional maturity, qualities associated with effective leadership, strong communication skills, creativity and personal initiative, and intellectual discernment. As a University-based graduate school, the School of Divinity seeks students who will constructively engage the diversity of the University, with openness to learning from persons of other religious traditions and from those who hold divergent values and commitments.

Applicants are selected on the basis of academic potential for graduate-level work, genuine promise for ministry, a clearly articulated commitment to Christian vocation, and evidence that the applicant will benefit from as well as enhance theological education at Wake Forest University.

Graduate theological education and vocational formation require a substantial commitment of one's time and energy. The MDiv program is designed with the assumption that students will be enrolled full-time. Individuals interested in limited enrollment should consult with the Office of Admissions before applying to the program.

Applicants should complete the online application process at <https://divinity.wfu.edu/apply> (<https://divinity.wfu.edu/apply/>). In addition to the application, candidates must supply the following supporting documents:

1. **official academic transcripts** from prior educational institutions attended. This includes any work done at a community or technical college, study abroad, or any other school at which the applicant has taken coursework. Those whose undergraduate studies are in process need to have an official transcript of work completed to date sent to the admissions office directly from the institution. Additionally, applicants must submit a final transcript documenting the completion of their degree.
2. **three letters of recommendation:** the requirement includes providing at least two academic references. Applicants are encouraged to provide a pastoral recommendation. Those who have been out of school for five or more years may provide professional recommendations from an employer or community leader that speak to the applicant's character.

3. **the admissions essay:** additional information can be found on the online application and at <https://divinity.wfu.edu/admissions/apply-now/application-materials/>.
4. **a well-organized resume** that provides a brief summary of the applicant's educational background, job experience, vocational aspirations, leadership goals and accomplishments, professional affiliations, honors and awards, extracurricular activities, skills, personal qualities, and interests and hobbies.
5. **an application fee** of \$75. The application fee can be paid using a credit or debit card on the online application, or by submitting a check or money order, made payable to Wake Forest University, to the Office of Admissions. The School of Divinity also offers application fee waivers based on qualified program participation. If the applicant has participated in one of the programs below within the last two years, s/he may be eligible for an application fee waiver. Applicants must contact their director/coordinator to request a letter verifying participation in the program and the dates of participation. The letter should be sent to the Office of Admissions in a sealed envelope with the back flap initialed by the authorizing official. *AmeriCorps, Bill and Melinda Gates Millennium Scholar, Bonner Scholars/Leaders, Careers Opportunity Research/ NIH (COR/NIHM), currently enrolled School of Divinity students, currently serving in the U.S. Military, Institute for Recruitment of Teachers (IRT), Leadership Alliance Summer Research Early Identification Program, Ronald McNair Post-baccalaureate Achievement Program, Mellon Minority Undergraduate Fellows Program, National Association of African American Honors Programs (NAAHP), National College Advising Corps (NCAC), Organization of American States (OAS), Peace Corps, Society for the Advancement of Chicanos and Native Americans in Science (SACNAS), Teach for America*

Graduate Record Exam (GRE) scores are not required. Once an application is complete, the file is reviewed. One of the following decisions will be made: full admission, provisional admission, probationary admission, wait list, or decline of admission.

A limited number of students (no more than 10% of the entering class) may be admitted on academic probation at the discretion of the admissions committee. Students admitted on probation must achieve a minimal GPA of 2.5 in the School of Divinity. They will be expected to make use of the Writing Center and other academic resources. The performance of students admitted on academic probation will be reviewed after their first semester to determine whether they should continue on probation.

## International Students

**International applicants whose native language is not English are required to submit official results of the Test of English as a Foreign Language (TOEFL) with the application for admission.** Proficiency in written and oral English is required for enrollment in an academic program. The TOEFL must have been taken during the past five years. A TOEFL score of 600 paper-based, 250 computer-based, or 95 internet-based are the minimums required with a minimum score of 20 or higher in each of the four sub-areas. The TOEFL is administered at test centers throughout the world at different times during the year. Information on how to register and where to take the test is available at [ets.org/toefl](https://ets.org/toefl) (<https://ets.org/toefl/>). If an applicant successfully graduated from an accredited college or university in the United States, a TOEFL waiver can be requested. A decision regarding the waiver will not be made until an application for admission has been completed.

To meet requirements for entry into the United States for study, applicants must demonstrate that they have sufficient financial

resources to meet the expected costs of their educational program. Applicants must provide documentary evidence of their financial resources before visa documents can be issued. United States laws and regulations restrict the opportunity for international students to be employed. Students may be allowed to work off campus only under special circumstances. Many spouses and dependents of international students are not allowed to be employed while in the United States.

International students and their dependents residing in the United States are required to purchase or provide proof of health insurance. Wake Forest University requires that all students registered on a full-time basis be covered by a health insurance policy that meets certain coverage criteria defined by the university. Students have the option of either purchasing coverage through the university plan (Student Blue) or waiving this coverage by proving that they are currently covered by a health insurance policy that meets or exceeds the established criteria. For detailed information as it pertains to the Student Blue plan or the waiver process, please visit the web site at <http://sip.studentlife.wfu.edu/>.

## Transfer Students

The prospective transfer student (a student who began his or her graduate theological education at a school other than Wake Forest University School of Divinity) may apply for admission in the normal manner and, additionally, write a letter stating the reasons for transferring and provide a letter of good standing from the theological school from which transfer is being made. Transfer credit is awarded through the Office of Academic Affairs at the recommendation of the faculty committee on curriculum and academic policy. Transfer credit will only be given for courses in which the student earned a grade of B- or higher and a student may not transfer more than 24 hours of credit into the Master of Divinity program. Transfer credit is not normally given for courses taken more than eight years before entrance into the School of Divinity or for courses that have been utilized or will be utilized for another degree program. Prospective transfer students should review the entire policy on transfer of academic credit on page 47 of the Bulletin.

## Admissions Visit

**All applicants are strongly encouraged to visit the School of Divinity, to observe a class, meet faculty and staff, and tour Wake Forest University's Reynolda Campus.** The School of Divinity offers several opportunities throughout the year that allow prospective students to experience and learn about the school. Individual campus visits can be arranged through the Office of Admissions or online at <https://divinity.wfu.edu/admissions/visit-campus/>.

## Admission to the School of Divinity

**Initial offers of admission will be sent out upon review of the completed application.** Preference for merit-based scholarships is given to those MDiv students whose applications are complete by January 15. Approved applicants will continue to be admitted on a rolling schedule until the class is full.

Approved applicants are required to reply to an offer of admission by submitting a \$150 nonrefundable admission deposit on or before the date specified in their acceptance letters. Upon matriculation, the \$150 deposit is used to open the student's financial account and is subtracted from the first semester fees.

## Joint Degree Programs

**Applicants interested in joint degree programs must apply separately to both the School of Divinity and the appropriate graduate or professional program of interest.** The School of Divinity has joint degree programs in Bioethics (MDiv/MA), Education (MDiv/MA), Counseling (MDiv/MA), Law (JD/MDiv), Sustainability (MDiv/MA), and MDiv/MA in Management Dual Degree Pathway. Review the Programs of Study section of the Bulletin for requirements, program structures, and procedures related to joint programs. Acceptance into one of the programs does not guarantee acceptance into the other.

### MDiv/MA in Bioethics

#### Admissions

Admission to the joint degree program is a two-tiered process. Interested students must apply separately to the School of Divinity and the Graduate School of Arts and Sciences and be accepted for admission by both schools. These applications do not need to be simultaneous, but students should indicate on each application their desire to be considered for the joint degree program. Alternatively, students may submit a separate application to enroll in the joint degree program if already admitted to either School. Applications will be reviewed separately by each program's admissions committee. Typically, students make application to the joint degree program by the time they complete one semester in either School. A joint admissions committee composed of members from both Schools will make final admissions decisions. The joint committee will also oversee and review admissions policies for the joint degree. The Graduate Record Exam is typically required for application to the bioethics program, but can be waived under certain circumstances (<http://bioethics.wfu.edu>).

#### Tuition and Fees

During five semesters of the program, students pay full-time divinity school tuition and are eligible for divinity school financial aid. For at least two additional semesters, students are enrolled in the bioethics program through the Graduate School and pay Graduate School tuition. School of Divinity financial aid is not available to students during these two semesters. A limited amount of aid may be available through the bioethics program.

### MDiv/MA in Counseling

#### Admissions

Applicants to the MDiv/MA in Counseling joint degree program must be accepted for admission by both the Department of Counseling and by the School of Divinity. Applicants are required to submit a separate application to each school by January 15. Applications for the Counseling Program are submitted through the Graduate School of Arts and Sciences at <http://graduate.wfu.edu>. Applications for the School of Divinity are submitted directly to the School of Divinity at <https://divinity.wfu.edu>.

Admissions decisions for the degree in counseling are based on consideration of a combination of criteria: college grade-point average, Graduate Record Examination (GRE) scores, recommendations, professional commitment, work or volunteer experience in the human services field, and suitability for the profession. Candidates for the counseling program are not required to have a specific undergraduate major or minor. Applicants being considered for admission are required to have a personal interview with program faculty. The successful completion of a criminal background check may be required as a condition of acceptance.

## Campus Interviews

Based on the material contained in their application, an applicant may be invited to campus for personal interviews with the admissions committees in both Counseling and in Divinity. These interviews are typically scheduled for late February/early March. If invited, applicants must arrange to appear in person even if they have previously visited one or both departments. Divinity and Counseling will work together to coordinate the dates and timing of the interviews.

After the interview phase, a joint admissions committee composed of members from both schools will make the final selection. Unsuccessful applicants to the joint degree program have the option of applying to the School of Divinity by July 25 but would have to wait until January of the following year to apply for admission to the Department of Counseling or to reapply to the joint degree program.

## Financial Assistance

During the Counseling degree portion of the program, accepted students will be awarded partial tuition scholarships that cover about 80% of the cost from the Graduate School of Arts and Sciences for the two years they are enrolled in the Department of Counseling portion of the program. Each student also receives a reconditioned laptop computer.

## MDiv/MA in Education

### Admissions

Candidates for the joint degree must apply both to the Graduate School of Arts and Sciences and the School of Divinity, following the admissions requirements of the respective programs, and be accepted to each program in order to pursue a joint degree. A joint committee consisting of faculty and staff both from the School of Divinity and the Department of Education will make final determinations about an applicant's suitability for the joint degree.

### Tuition and Fees

During the seven semesters and two summers of the program, students pay full-time divinity school tuition and are eligible for divinity school financial aid only during the semesters in which the student is enrolled in the divinity school.

### Financial Assistance

During the Education portion of the joint degree program, partial scholarships are available typically covering approximately 80% of tuition in the graduate school during the full regular terms (Fall/Spring) and full tuition scholarships are available for the summer.

## MDiv/MA in Management Dual Degree Pathway

### Admissions

Candidates for the dual degree pathway must apply both to the School of Business and the School of Divinity, following the admissions requirements of the respective programs, and be accepted to each program. Each school will make final determinations about an applicant's suitability for the dual degree pathway. These applications do not need to be simultaneous, but students should indicate on the School of Divinity application their desire to be considered for the program. Alternatively, students may submit a separate application to enroll in the dual degree pathway if already admitted to either School.

### Tuition and Fees

Students admitted to the Master of Divinity and Master of Arts in Management (MAM) dual degree pathway will pay tuition during their enrollment in each respective school (ordinarily School of Business

tuition and financial aid during their time in the MAM program and School of Divinity tuition and financial aid during the MDiv).

## Financial Assistance

During the Management degree portion of the program, accepted students are considered for scholarship awards based on a student's demonstrated leadership ability, prior internships or employment, extra-curricular activities, standardized test scores, final cumulative GPA, and other evidence indicative of academic success as a Master of Arts in Management student. Scholarship amounts and criteria will be reviewed and adjusted annually.

## MDiv/MA in Sustainability

### Admissions

Candidates for the joint degree must apply both to the Graduate School of Arts and Sciences and the School of Divinity, following the admissions requirements of the respective programs, and be accepted to each program in order to pursue a joint degree. A joint committee consisting of faculty and staff both from the School of Divinity and Center for Energy, Environment, and Sustainability will make final determinations about an applicant's suitability for the joint degree. These applications do not need to be simultaneous, but students should indicate on each application their desire to be considered for the joint degree program. Alternatively, students may submit a separate application to enroll in the joint degree program if already admitted to either School.

### Tuition and Fees

During the eight semesters of the programs, students pay full-time divinity school tuition and are eligible for divinity school financial aid only during the semesters in which the student is enrolled in the divinity school.

## JD/MDiv

### Admissions

Separate applications for admission must be made to the School of Law and the School of Divinity. The School of Law requires the Law School Admissions Test (LSAT). Once a student is admitted to each school's degree programs, final approval for admittance to the accelerated, joint degree program is decided by a joint admissions committee.

### Fifth Year

During the fifth year, students register in and pay tuition to the School of Divinity during one semester, subsequently registering in and paying tuition to the School of Law during the remaining semester. During the School of Divinity fifth year semester, students may take courses in the School of Divinity, courses cross-listed with the School of Law, or courses offered by other schools or departments of the University as approved by the School of Divinity. A similar process applies to the School of Law fifth-year semester.

## Applying for Part-Time Enrollment

**Part-time enrollment (degree seeking):** Students admitted to the MDiv program may pursue the degree on a part-time basis with permission of the senior associate dean and the associate dean of academic affairs. Part-time students who are seeking a degree may be eligible for scholarship assistance in the fall and spring semesters. If eligible, students can receive aid for part-time study for up to four semesters. Part-time students are encouraged to move to full-time after four semesters. Students who take at least 4.5 credit hours may also be eligible for federal aid. Part-time students must complete the MDiv program within six years of matriculation. Students may appeal to the associate dean of academic affairs for an extension to the six-year rule,



but financial aid is limited to six years of part-time study and three years of full-time study. Those who apply for this status should know that previous higher education loans may no longer be deferred if they drop below 9 credit hours per semester.

**Exploratory, nondegree enrollment:** Persons seeking to determine if divinity school is an appropriate option may apply for exploratory status. Exploratory student status is also a restricted category of admission for people who do not have need of a degree program and who desire access to graduate theological education for personal or professional enrichment. Courses are taken for credit. If approved, these students may take six credits per semester for one academic year. No financial aid is available for students in this category. Exploratory students who wish to enter the Master of Divinity program must complete the full admissions process. Courses taken during the exploratory process may be transferred into the Master of Divinity program.

**Temporary enrollment:** Students seeking credit to transfer to other degree programs may apply for temporary enrollment status. Temporary students may enroll in School of Divinity courses after completing admissions materials specified by the Office of Admissions. No financial aid is available.

## Spring Semester Admissions

Applicants are strongly encouraged to begin their studies in the fall semester of the school year. This offers a more meaningful sense of continuity and cohort learning for all students who begin the program. The admissions committee gives priority to those applying for admission in the fall semester. Openings for admission in the spring semester are possible under special circumstances, but the number of spaces available may vary from year to year. Registration for spring semester begins November 2.

## Deferment

Applicants admitted for fall semester may opt to defer for up to one year only. Beyond one year students must reapply for admission. Although not guaranteed, the School of Divinity will make every effort to award the same amount of scholarship monies agreed upon before the deferment.

## Auditors

School of Divinity students, other Wake Forest students, and persons in the community may be admitted to select School of Divinity courses as auditors. A list of courses open to auditors is available in the Office of Academic Affairs or online at <https://divinity.wfu.edu/continuing-education-and-programs/audit-a-course/>. Applications for auditor status are accepted through the Office of Academic Affairs.

Students can elect to audit some courses rather than take them for a letter grade. Students can register for courses in the "audit" mode with approval of the course instructor and their faculty adviser. Each course instructor establishes guidelines for auditor participation. No course credit is earned for audited courses and audited courses do not count toward the overall degree requirements. Audited courses will appear on a student's degree audit and official transcript. Students who want to audit courses outside of the School of Divinity must request permission from the school or department in which the course is offered. Students who want to change a course enrollment from grade mode to audit mode must do so on the first day of classes in any semester.

# Financial Aid and Scholarships

**Institutional financial aid comes in the form of merit-based scholarships and federal aid comes in the form of work-study and loans.** Scholarship funds are available through the gifts of individuals, families, churches, organizations, and foundations. Merit-based scholarships are awarded to candidates who demonstrate in their applications both high academic achievement and outstanding promise for ministry. These scholarships are awarded to full-time degree-seeking students and are usually renewable for up to three years (six semesters) based on continued academic success. Fellowship recipients must maintain a minimum GPA of 3.3 or higher, while all other scholarship recipients must maintain a 2.5 GPA. Merit awards may range from 33% to 100% of tuition and a stipend.

There is no application for School of Divinity scholarships; students are automatically considered for all scholarships. The School of Divinity has received generous gifts to fund scholarships for students. During the process of awarding scholarships, these funds may be noted in the scholarship award letter to specify where monies have been designated and for students to be able to thank donors for their generosity. All candidates for admission are given consideration for these awards.

Priority for merit-based scholarships is given to applicants who apply by January 15.

## Fellowships and Scholarships

**The School of Divinity is committed to assisting students in meeting basic educational and living expenses while they are enrolled.** Merit scholarships are granted to candidates who demonstrate in their application high academic achievement and outstanding promise for ministry. These scholarships are awarded to full-time students enrolled in degree programs. Most are renewable for three years, but there is no automatic increase in the amount awarded to compensate for increases in tuition and fees. Scholarships only cover tuition, not living expenses. All candidates for admission are considered for these awards. Scholarships and fellowships are awarded from funds provided by generous gifts to the University from individuals and organizations.

## Federal Aid

**Need-based financial aid is granted by the Financial Aid Office of Wake Forest University.** This includes state and federal loans, grants, and work-study. All students who are U.S. citizens and wish to be considered for scholarships and other financial aid must complete the FAFSA form. Students use their tax return from the previous year to complete the FAFSA. Divinity students are considered independent students on the FAFSA even if they are still claimed as dependents on their parents' tax returns. For more information, visit <http://grad.financialaid.wfu.edu/>, the Graduate School and School of Divinity Financial Aid website. The FAFSA form is available at [www.fafsa.ed.gov](http://www.fafsa.ed.gov) (<http://www.fafsa.ed.gov>). Non-degree seeking students and international students are ineligible for federal aid programs.

Federal student loans pay directly to a student's account immediately before the first day of class each semester. If a student's grants, scholarships, and loans exceed their Wake Forest University charges, then the student is eligible for a refund from student billing to use for living expenses. The process for generating credit balance refunds begins the first week of class.

Federal Work-Study positions are available in the School of Divinity for qualified students. Students may earn up to \$2,000 per year. Positions are posted the first week of classes. Students apply to the designated

contact person on the available jobs. Work-study is overseen by Mary Ellen Walter, admissions office manager, in the School of Divinity.

## Veterans Educational Benefits

The US Department of Veterans Affairs (VA) has approved Wake Forest University School of Divinity as an eligible institution at which students may use its Education Benefit Programs. Wake Forest University's "school certifying officials" for VA Education Benefits are happy to assist recipients by completing enrollment certifications to the VA. Please contact the Student Financial Aid Office with any questions, concerns, or requests for enrollment certifications.

### Pursuant to The Veterans Benefits and Transition Act of 2018

GI Bill and VR&E beneficiaries (Chapter 33 and Chapter 31 beneficiaries) may attend a course of education or training for up to 90 days from the date the beneficiary provides:

- A certificate of eligibility, or a "statement of benefits" obtained from the VA's eBenefits web site, or a valid VAF 28-1905 form for Chapter 31 authorization purposes, provided that the student beneficiary provides such documentation to the appropriate VA Certifying Official no later than the first day of a course of education, and provided that the student provides any additional payment amount due that is the difference between the amount of the student's financial obligation and the anticipated amount of the VA education disbursement to Wake Forest University.

This policy allows a student to attend the course until the VA provides payment to Wake Forest University. Wake Forest University will not impose a penalty, or require the beneficiary to borrow additional funds to cover tuition and fees due to late payments from the VA.

## Outside Scholarships

Many divinity students receive financial aid from other agencies, such as local churches, denominational offices, and foundations. Students need to apply for such funds directly to the agencies involved. Additional financial aid information is available at <https://divinity.wfu.edu/admissions/financial-aid/> under "Non-Institutional Aid" and "Additional Aid Resources."

## Satisfactory Academic Progress and Financial Aid Eligibility

### Scholarship Renewal

Scholarships awarded by the School of Divinity are awarded to full-time degree-seeking students and are usually renewable for up to three years (six semesters) based on continued academic success. Students receiving fellowships are required to maintain a minimum cumulative GPA of 3.3. Other scholarship recipients are required to maintain a 2.5 GPA. Students who fall below the minimum GPA requirement will be given a semester of scholarship probation. If students remain below the stated requirement after the scholarship probation semester, the scholarship will cease or a smaller award may be provided. The School of Divinity may immediately discontinue scholarship support for students who earn a 2.0 GPA or below either cumulatively or for the term.

### Federal Aid Continuation

Federal regulations require that schools monitor the academic progress of each applicant who applies for and/or receives federal aid. Students

must be making Satisfactory Academic Progress (SAP) towards their academic objective in order to maintain their eligibility for financial aid.

To determine financial aid eligibility for the following academic year, the Committee on Scholarships and Student Aid annually evaluates students' satisfactory academic progress at the end of the second summer session. Additional evaluation is made at a student's re-admittance.

The receipt of federally-controlled aid requires half-time enrollment (4.5 or more hours) during the fall and spring semesters and a minimum cumulative grade point average of 2.5 on work attempted in the Wake Forest School of Divinity. Institutional aid is generally not awarded for summer sessions, and not awarded beyond the sixth (fall or spring) semester; this limit can be prorated for transfer students. Certain institutional aid programs have higher academic and/or other requirements, which are communicated to students through the Curriculum and Academic Policy Committee. The Committee may revoke institutionally-controlled financial aid for violation of University regulations, including its honor code, or for violation of federal, state, or local laws.

The Higher Education Act mandates that institutions of higher education establish minimum standards of satisfactory academic progress for students receiving federal aid. Wake Forest University makes these minimum standards applicable to all programs funded by the federal government. Certain federal aid programs have higher academic and/or other requirements, which are communicated to recipients. To maintain academic eligibility for federal aid, a student must:

- Complete the requirements for a master of divinity degree within a maximum number of hours attempted (including transfer hours) of 135. During a semester in which a student drops courses or withdraws, the maximum number of hours attempted includes those hours attempted as of the earlier of:
  1. the withdrawal date, or
  2. the last day to drop a course without penalty (as published in the academic calendar).
- Pass at least two-thirds of those hours attempted (including pass/fail courses, and hours attempted as a visiting or unclassified student) in the School of Divinity. Incompletes count as hours attempted, unless from a non-credit course. Audited classes do not count as hours attempted. During a semester in which a student drops courses or withdraws, hours attempted includes those hours attempted as of the earlier of:
  1. the withdrawal date, or
  2. the last day to drop a course without penalty (as published in the academic calendar). For purposes of this policy, hours attempted also include all instances in which a course is repeated.
- Maintain the following minimum cumulative grade point average on all graded hours attempted (including incompletes from graded courses, but excluding pass/fail courses) in the undergraduate schools of the University, for graded hours attempted: at least 9, fewer than 135, a minimum cumulative GPA of 2.5.

The Wake Forest University grade point average calculation also excludes pass/fail courses. In cases where a student repeats a course for which he or she received a grade of C- or lower, the cumulative grade point average is calculated by considering the course as attempted only once, with the grade points assigned reflecting the highest grade received. However,

this provision does not apply to any course for which the student has received the grade of F in consequence of an honor code violation. During a semester in which a student drops courses or withdraws, all graded hours attempted in the undergraduate schools of the University include those graded hours attempted as of the earlier of:

1. the withdrawal date, or
2. the last day to drop a course without penalty (as published in the academic calendar).

The policy on satisfactory academic progress applies only to the general eligibility for aid consideration. There are other federally mandated requirements a student must meet to receive federal aid. For instance, certain federal loan programs also require either the passage of a period of time or the advancing of a grade level between annual maximum borrowing, regardless of general eligibility for aid. Other general student eligibility requirements for a student to receive federal financial aid are listed in *Funding Education Beyond High School: The Guide to Federal Student Aid*, a publication of the U.S. Department of Education.

## Appeal Procedure

Denial of aid under this policy may be appealed in writing to the

Committee on Scholarships and Student Aid  
P.O. Box 7246  
Winston-Salem, NC 27109-7246

or delivered to the Office of Student Financial Aid, Reynolda Hall Room 4.

The Committee may grant a probationary reinstatement of one semester (in exceptional cases this period may be for one full academic year) to any student, upon demonstration of extenuating circumstances documented in writing to the satisfaction of the Committee. Examples of extenuating circumstances and appropriate documentation include, but are not necessarily limited to the following: illness of the student or immediate family members – statement from physician that illness interfered with opportunity for satisfactory progress; death in family – statement of student or minister; temporary or permanent disability – statement from physician. During a probationary period, students are considered to be making satisfactory academic progress under this policy and may continue to receive aid. A determination of satisfactory academic progress for any period of enrollment after the probationary period is made, upon the student's written request, at the end of the probationary period. Reinstatement after probation can be made only after the student has received credit for the appropriate percentage of work attempted with the required cumulative grade point average. Any student determined ineligible for any academic year may request a special review at the end of one semester or summer term and may thereby be reinstated for all or part of the academic year. The student must request any such mid-year review in writing; otherwise only one determination of satisfactory academic progress will be made each academic year. Reinstatement cannot be made retroactive.

## Graduate Hall Director and Graduate Assistant

### Graduate Hall Director and Graduate Assistant

Divinity students are invited to apply for graduate hall director and graduate assistant positions with Wake Forest University's Office of

Residence Life and Housing. Information is available at [www.rlh.wfu.edu](http://www.rlh.wfu.edu) (<http://www.rlh.wfu.edu>).

*The School of Divinity encourages students to keep work hours at a maximum of 20 hours per week in order to engage fully in studies and community life.*

## Student Health Insurance

Wake Forest University is committed to the health and well-being of all of its students. Health insurance is required as a condition of enrollment for your admission to the School of Divinity. The School of Divinity is not associated with nor do we endorse a particular insurance plan. The Wake Forest University Student Insurance Plan is one option you may choose from should you not already have coverage.

**Student Health Insurance Premium.** Wake Forest University requires health insurance for all full-time, degree-seeking students. Students who demonstrate coverage that meets our criteria may waive the insurance provided by WFU. Students who only need part-time status to complete their degree are eligible for the student insurance. International students will be allowed to waive enrollment in the student insurance, if they are covered by a plan reviewed and approved by the University. Premiums for student health insurance will be determined each year and published on the Wake Forest University website. Complete details and criteria can be found at <http://sip.studentlife.wfu.edu/>.

### Medical Withdrawal or Medical Change to Continuous Enrollment Status.

Students enrolled in the health insurance plan may continue coverage for a maximum of one year while on a medical leave or on medical continuous enrollment status approved by the university. Students must intend to return and remain a degree-seeking candidate and remit appropriate premiums. To determine if you are eligible, please contact Student Blue for more information at 800.579.8022.

## Tuition, Fees, and Related Costs

### Tuition for Master of Divinity Program: Fall 2021 - Spring 2022

Fee	Amount
Full time	\$ 21,220
Part time (per hour)	\$ 846
Summer School (per hour)	\$ 430
Auditors (per hour)	\$ 120
Student activity fee	\$ 380
Graduation fee	\$ 175
Wellness Fee (can be waived)	\$372

Charges are due in full on August 1st for the fall semester, December 1st for the spring semester, and June 1st for both summer sessions. Student accounts must be paid in full before the student is entitled to receive an official transcript, diploma, or to register for future classes. Institutional fellowships, scholarships, and grants generally appear as credits on student accounts. Divinity students enrolled for full-time resident credit are entitled to full privileges regarding libraries, student publications, athletic contests, the Student Union, the University Theatre, the Secrest Artists Series of Wake Forest University, and the Student Health Service. Occasional students are entitled, after paying tuition, to the use of the libraries but not to the other privileges listed above. They may, however,

secure admission to concerts, athletic events, and recreational facilities by paying a nominal activity fee.

## Refund of Charges Policy and Return of Financial Aid Policy

A student who officially withdraws or is granted continuous enrollment status during a semester may be entitled to a refund of tuition depending on the student's date of withdrawal, and/or date of continuous enrollment status.

Tuition refunds are based on the date of official withdrawal or the effective date of continuous enrollment status. Please refer to the official "Schedule of Refunds for Withdrawal or Continuous Enrollment" for the respective semester of enrollment. Refunds will be reduced by the amount of any outstanding charges on a student's account. If refunded charges leave a credit balance on the student account, the student is responsible for completing an online student refund request at (<http://finance.wfu.edu/sfs/student-refund/>) or the credit balance will remain on the student account and will be applied for future semesters. If the credit is a direct result of Title IV aid, the credit is automatically refunded to the student.

### Fall & Spring Semesters - Schedule of Refunds for Withdrawal or Continuous Enrollment

Official Date	Tuition Refunded
Before classes begin	100% tuition (-) deposit
First week of classes	85%
Second week of classes	75%
Third week of classes	50%
Fourth week of classes	30%
Fifth week of classes	20%
After fifth week of classes	0%

### Summer Sessions I & II (6 week sessions) - Schedule of Refunds for Withdrawal or Continuous Enrollment

Official Date	Tuition Refunded
First three class days	100% tuition, less deposit
Fourth class day	75%
Fifth class day	50%
Sixth class day	25%
After sixth class day	0%

### Full Summer Session (12 week session) - Schedule of Refunds for Withdrawal or Continuous Enrollment

Official Date	Tuition Refunded
First five class days	100% tuition, less deposit
Sixth - Ninth class day	75%
Tenth - Twelfth class day	50%
Thirteenth - Fifteenth class day	25%
After fifteenth class day	0%

There are no refunds for mandatory fees after the first class day in a semester as reflected in the academic calendar.

Students are responsible for officially dropping courses to be eligible for an adjustment. Nonpayment for classes for which you are registered or

non-attendance in a registered class does not release you from financial obligation and will not drop you from the class.

Student Financial Services calculates the refund of charges and will apply the amount of tuition refunded in the applicable refund schedule listed above. Student Financial Services has available an example of the application of the University Refund of Charges Policy. If charges originally paid by financial aid funds are no longer covered after financial aid funds are returned to the respective programs, the student is responsible for the remaining balance.

Vehicle registration fees will not be refunded unless the issued permit is returned to Transportation and Parking Services before the first day of class. Students graduating or studying abroad for spring semester may receive a prorated refund of the vehicle registration fee by returning the issued permits to the Transportation and Parking Services office.

Tuition, fees, dining and all other charges will not be refunded when a student is suspended or expelled from the University as a result of a conduct or honor code violation. Return of Title IV funds are handled in accordance with federal law.

\*Refunds will be reduced by the amount of any outstanding charges on a student's account.

## Pursuant to The Veterans Benefits and Transition Act of 2018

GI Bill and VR&E beneficiaries (Chapter 33 and Chapter 31 beneficiaries) may attend a course of education or training for up to 90 days from the date the beneficiary provides:

A certificate of eligibility, or a "statement of benefits" obtained from the VA's eBenefits web site, or a valid VAF 28-1905 form for Chapter 31 authorization purposes, provided that the student beneficiary provides such documentation to the appropriate VA Certifying Official no later than the first day of a course of education, and provided that the student provides any additional payment amount due that is the difference between the amount of the student's financial obligation and the anticipated amount of the VA education disbursement to Wake Forest University.

This policy allows a student to attend the course until the VA provides payment to Wake Forest University. Wake Forest University will not impose a penalty, or require the beneficiary to borrow additional funds to cover tuition and fees due to late payments from the VA.

## University Disruption Refund Policy

Circumstances may arise during a semester that cause significant disruptions to University operations and result in the University closing the campus. These circumstances include, without limitation, extreme weather, fire, natural disaster, war, labor disturbances, loss of utilities, riots or civil commotions, epidemic, pandemic, public health crisis, power of government, or any other circumstance like or unlike any circumstance mentioned above, which is beyond the reasonable control or authority of the University.

In the event of a significant disruption to University operations either:

- During a semester that results in the University closing campus for the remainder of the semester;
- At the beginning of a semester that delays or prevents the University opening campus; or



- During a semester that results in the University closing campus temporarily during the semester

The University will issue refunds for housing and dining charges and wellness and parking fees to students where applicable and according to the refund schedule below. There will be no refunds for tuition or Student Health, Student Activity, or any other fees paid by or on behalf of students. Refunds (if applicable) will be calculated at the end of the semester.

This policy applies to significant disruptions where the University closes campus. It does not apply where students officially withdraw from the University or are officially granted continuous enrollment status during a semester. Refunds, if any, in those circumstances are governed by the University's Refund of Charges Policy.

### Fall & Spring Semesters - University Disruption Refund Schedule

Number of Whole or Partial (Sunday-Saturday) Weeks When Campus is Open	Refund Percentage
0	100%
1	85%
2	78%
3	71%
4	64%
5	57%
6	50%
7	43%
8	36%
9	29%
10	22%
11	15%
12	10%
13	No Refund
14	No Refund
15	No Refund
16	No Refund

### Summer Sessions I & II (6 week sessions) - University Disruption Refund Schedule

Number of Whole or Partial (Sunday-Saturday) Weeks When Campus is Open	Refund Percentage
0	100%
1	75%
2	50%
3	25%
4	No Refund
5	No Refund
6	No Refund

### Full Summer Session (12 week session) - University Disruption Refund Schedule

Number of Whole or Partial (Sunday-Saturday) Weeks When Campus is Open	Refund Percentage
0	100%
1	85%
2	75%
3	65%
4	55%
5	45%
6	35%
7	25%
8	15%
9	No Refund
10	No Refund
11	No Refund
12	No Refund

### Estimated Cost of Attendance Fall 2021 - Spring 2022

To determine need-based financial aid, the School of Divinity, in cooperation with the Graduate School of Arts and Sciences, estimates annual costs. The figures below are based on tuition, fees, and living expenses. Note that actual living expenses may vary, depending on specific choices of housing, food, and personal expenses.

Fee	Amount
Tuition	\$ 21,220
Student Health Fee	\$ 490
Student Activity Fee	\$ 380
Average Direct Loan Fees	\$ 182
Room <sup>1</sup>	\$ 9,110
Meals <sup>2</sup>	\$ 3,860
Books & Supplies <sup>3</sup>	\$ 1,000
Transportation <sup>4</sup>	\$ 2,750
Personal Expenses <sup>5</sup>	\$ 2,750
Insurance <sup>6</sup>	\$ 2,792
Estimated Total Costs of Attendance	\$ 44,374
Optional Wellness Fee <sup>7</sup>	\$ 372

<sup>1</sup> Room expenses reflect 9 month average of single bedroom apartments as specified by 5 local apartment complexes in close proximity to campus. An estimated \$300 per month for utilities has been included. For students living at home, the amount reflects 1/10 of the residence hall and off-campus amounts. Figure has been rounded to nearest \$50.

<sup>2</sup> Meal expenses for residence hall and off-campus apartment students are based on \$18.38 per day for thirty weeks. For students living at home, the amount reflects one-third of the residence hall and off-campus amounts. An investigation of food allowances at comparable schools in the southeast reveals our food allowance to be fair.

- <sup>3</sup> Book and supplies expenses are based on an average yearly cost as estimated by the WFU bookstore and the WFU Divinity Student COA Survey. The amount for part-time enrollment is a prorated amount based on the assumption that full-time enrollment includes 3 classes per term. All classes taken for credit toward the student's degree are included in the determination of the COA component.
- <sup>4</sup> Transportation expenses for residence hall and off-campus apartment students are based on around \$92 per week for thirty weeks. For students living at home, the amount reflects one-half of the residence hall and off-campus amounts.
- <sup>5</sup> Personal expenses for residence hall and off-campus apartment students are based on \$13.10 per day for thirty weeks, rounded to the nearest \$10. For students living at home, the amount reflects two-thirds of the residence hall and off-campus amounts.
- <sup>6</sup> Health insurance is required for all degree-seeking domestic graduate students and all international graduate students with F or J visas. For 2020-2021, student health insurance is estimated based on the WFU/BCBS Insurance Policy for 2019-2020. More information is available on the WFU Student Health Insurance Program website. Students who demonstrate coverage that meets criteria may waive the insurance provided by WFU. If you are unsure of your eligibility, please contact [studentinsurance@wfu.edu](mailto:studentinsurance@wfu.edu).
- <sup>7</sup> A wellness fee will be charged to all student accounts. This wellness fee grants access to campus wellness, recreation, and fitness facilities, equipment, and programs. Each semester's charge will support the overall operation of the state-of-the-art wellbeing center facilities. Graduate students may opt out to have the fee waived online through the Wake Information Network (WIN). Graduate students who elect to opt out of the wellness fee will not have access to campus wellness, recreation and fitness facilities, equipment and related programs, such as intramurals and club sports. If you opt out and change your mind at a later date, you can obtain a membership fee on a month-to-month basis at a fee of \$30/month.

# PROGRAMS

- Master Programs
  - Bioethics, MDiv/MA Joint Degree
  - Counseling, MDiv/MA Joint Degree
  - Education, MDiv/MA Joint Degree
  - JD/MDiv Joint Degree
  - Master of Divinity
  - MDiv/Management, MA Dual Degree Pathway
  - Sustainability, MDiv/MA Joint Degree
- Concentrations
  - Episcopal Studies
  - Interfaith Literacy and Leadership
  - Religious Leadership in Food, Health, and Ecology
  - Sustainability Concentration
- Related Programs at Wake Forest University
  - Religious Studies, Master of Arts
  - Women's, Gender, and Sexuality Studies, Graduate Concentration
- Other Program Opportunities
  - Hispanic Summer Program

## Master Programs

- Bioethics, MDiv/MA Joint Degree
- Counseling, MDiv/MA Joint Degree
- Education, MDiv/MA Joint Degree
- JD/MDiv Joint Degree
- Master of Divinity
- MDiv/Management, MA Dual Degree Pathway
- Sustainability, MDiv/MA Joint Degree

The Wake Forest University School of Divinity offers the Master of Divinity degree and five joint degrees:

- **The Master of Divinity (MDiv)** is a professional degree for persons preparing to be religious leaders in diverse congregational and not-for-profit settings.
- **The Master of Divinity/Master of Arts in Bioethics Joint Degree (MDiv/MA Bioethics)** facilitates an interdisciplinary conversation between theology and bioethics for persons preparing for vocations in either discipline.
- **The Master of Divinity/Master of Arts in Counseling Joint Degree (MDiv/MA Counseling)** is for persons who seek vocations that combine theological, ministerial, and counseling skills.
- **The Master of Divinity/Master of Arts in Education Joint Degree (MDiv/MA Education)** prepares students to teach in public and/or private schools and provides them an opportunity to combine teaching/educational interests and skills with a wide range of ministerial vocations.
- **The Master of Divinity/Master of Arts in Management Dual Degree Pathway** prepares students for various vocations in ministry and equips practitioners to lead in humanitarian agencies, church and para-church organizations, or in the marketplace.
- **The Master of Divinity/Master of Arts in Sustainability Joint Degree (MDiv/MA Sustainability)** equips students to lead in congregations and other religiously-affiliated organizations that seek to respond to critical ecological and other social issues.

- **The Juris Doctor/Master of Divinity Joint Degree (JD/ MDiv)** prepares students for theologically informed vocations either in law or religious leadership.

## Bioethics, MDiv/MA Joint Degree

The goal of the Master of Divinity/Master of Arts in Bioethics (MDiv/MA Bioethics) joint degree program is to facilitate an interdisciplinary conversation between theology and bioethics and to provide resources for students whose vocational aims require knowledge and/or competence in both disciplines.

## Requirements

### Plan of Study and Requirements

A student typically will first complete two and one-half years of work (five semesters, 61-65 credit hours) primarily in the School of Divinity. This joint degree is designed to be completed in seven semesters. The final two semesters will be completed in the bioethics program but with some electives taken in the School of Divinity. Shared courses will be joint degree appropriate, selected from a list of courses agreed upon by the School of Divinity and the bioethics program. Students will complete a total of 91 credit hours in order to earn the joint degree. An outline of a typical MDiv/MA seven semester schedule is shown below.

### Typical Joint Degree Program Outline

Year	Fall	Spring
Year One	Mainly Divinity (13)	Mainly Divinity (13)
Year Two	Mainly Divinity (13)	Mainly Divinity (13)
Year Three	Mainly Divinity (13)	Mainly Bioethics (13)
Year Four	Mainly Bioethics (13)	

**Students are required to complete 61 hours toward the Master of Divinity Degree.**

Code	Title	Hours
<b>Biblical Studies</b>		
BIB 521	Old Testament Interpretation I	3
BIB 522	Old Testament Interpretation II	3
BIB 541	Introduction to New Testament	3
BIB 542	Interpreting New Testament Letters	3
or BIB 543	Interpreting New Testament Gospels	
Biblical Studies elective		3
<b>Historical and Theological Studies</b>		
HIS 501	History of Christianity	3
HIS 502	History of Christianity II	3
THS 501	Christian Theology	3
Theology elective		3
THS 521	Foundations of Christian Ethics	3
or THS 522	History of Theological Ethics	
<b>Ministerial Studies</b>		
MIN 501	Art of Ministry I: Introduction to the Life and Work of Ministry	2
MIN 602A	Internship Reflection Seminar	1.5
MIN 602B	Internship Reflection Seminar	1.5
Two 200-hour ministry internship placements (as described in the Art of Ministry Program section above)		1.5

MIN 705	Third Year Capstone	1.5
Proclamation *		3
Relational Care *		3
Community Building *		3
Formation *		3
<b>Divinity Electives</b>		
General Elective		3
One Divinity Ethics elective		3
Select five hours from the following:		5
MIN 636A	Clinical Pastoral Education I	
	Any Pastoral Care elective	
	Any Theology elective	
<b>Shared Electives</b>		
Elective credit hours chosen from either program		4

\* Courses fulfilling these requirements are offered each semester.

### MA Bioethics Required Courses (26 hours)

Bioethics Requirements: (18h), including the bioethics thesis (6h). The joint degree program will utilize the current courses offered through both the bioethics program (<https://graduatebioethics.wfu.edu/courses/>) and the School of Divinity (<https://divinity.wfu.edu/academics/academic-resources/>).

## Policies and Procedures Advising

Every student in the joint program will be assigned a faculty adviser from each school with whom they are expected to meet regularly throughout the duration of the program. Students are required to follow the student handbook of the school through which they are enrolled.

## Continuing Eligibility

To continue in the program, the Graduate School requires that a student maintain a minimum cumulative grade point average of 2.5.

This requirement applies to the MA component of the joint degree program. A student who fails to satisfy this requirement will be placed on academic probation and will have one semester to bring their GPA to 2.5 or greater; otherwise, the student may be dismissed from the program. The minimum grade point average required for successful completion of the MA portion of the degree is 3.0. Continuing eligibility in the Master of Divinity program is outlined in the School of Divinity's Continuing Eligibility Policy.

## Counseling, MDiv/MA Joint Degree

This degree is for students seeking to enter vocations in religious leadership with skills both in theology and counseling. Students enrolled in the joint degree program can complete the requirements for both the Master of Divinity and Master of Arts in Counseling degrees in four years instead of the five years needed if each program is undertaken separately. The curriculum meets the accrediting standards for each degree program. The joint degree program is designed to ensure that students meet the educational requirements for licensure as professional counselors in North Carolina and most other states.

## Requirements Plan of Study and Requirements

Students in the joint degree program spend the first two years of the four year program enrolled in courses in the School of Divinity. During these first two years, students complete on average 50-53 credit hours of required courses, required electives and general electives. The second internship required for the MDiv curriculum is deferred until the second year of the counseling program. Joint degree students are required to complete through an ACPE accredited program a basic unit of Clinical Pastoral Education (CPE). Students generally meet the CPE requirement in a summer session during their first two years of the program. Guidelines for applying CPE credit toward the degree can be obtained through the Office of Academic Affairs. The introductory CPE unit and CNS 738A/CNS 738B, the counseling practicum, satisfy the MDiv internship placement requirements.

Students spend the second two years of the joint program satisfying requirements for the Master of Arts in Counseling.

As part of the joint degree program, students are required to complete a series of one-hour capstone courses that emphasize intersections between theology and counseling. Joint degree students are expected to complete these courses beginning in their third year of the four year program. The capstone courses are offered through the School of Divinity.

Upon successful completion of the joint degree requirements, students receive both the Master of Divinity and the Master of Arts in Counseling degrees.

## Degree Requirements

**Students are required to complete 53 hours toward the Master of Divinity Degree.**

Code	Title	Hours
<b>Biblical Studies</b>		
BIB 521	Old Testament Interpretation I	3
BIB 522	Old Testament Interpretation II	3
BIB 541	Introduction to New Testament	3
BIB 542	Interpreting New Testament Letters	3
or BIB 543	Interpreting New Testament Gospels	
	Biblical Studies elective	3
<b>Historical and Theological Studies</b>		
HIS 501	History of Christianity	3
HIS 502	History of Christianity II	3
THS 501	Christian Theology	3
	Theology elective	3
THS 521	Foundations of Christian Ethics	3
or THS 522	History of Theological Ethics	
<b>Ministerial Studies</b>		
MIN 501	Art of Ministry I: Introduction to the Life and Work of Ministry	2
	Relational Care	3
<b>Capstone Requirement:</b>		
MIN 710	Topics in Psychology of Religion	
MIN 711	Topics in Spiritual Development	
MIN 712	Topics in Pastoral Theology	



Clinical Pastoral Education	5
Choose any 4 credit hours from the following:	4
Proclamation (1-3h)	
Community Building (1-3h)	
Formation (1-3h)	
<b>Electives</b>	
Select at least 6 hours of divinity electives	6
<b>Counseling (CNS) Required Courses</b>	
CNS 721 Research and Statistical Analysis in Counseling	3
CNS 736 Appraisal Procedures for Counselors	3
CNS 737 Basic Counseling Skills and Techniques	3
CNS 739 Advanced Counseling Skills and Crisis Management	3
CNS 740 Professional Orientation to Counseling	3
CNS 741 Theories and Models of Counseling	3
CNS 742 Group Procedures in Counseling	3
CNS 743 Career Development and Counseling	3
CNS 747 Cultures and Counseling	3
CNS 748 Life Span Development: Implications for Counseling	3
CNS 750 The Vienna Theorists-Freud, Adler, Moreno and Frankl	3
CNS 773 Family Counseling	3
CNS 780 Professional, Ethical and Legal Issues in Counseling	2
CNS 786 Consultation and Program Development in Counseling	2
CNS 790 Professional Identity Capstone Course	2
<b>Clinical Courses</b>	
CNS 738A Counseling Practicum - School	3
or CNS 738B Counseling Practicum - Clinical Mental Health	
CNS 744A Counseling Internship I A. School	2,3
or CNS 744B Counseling Internship I: Clinical Mental Health	
CNS 745A Counseling Internship II A. School	2,3
or CNS 745B Counseling Internship II: Clinical Mental Health	
<b>Program Specialty Courses</b>	
Select 9 hours of Community Counseling Program Specialty Courses:	9
CNS 746 Counseling Children	
CNS 749 School Guidance and Counseling	
CNS 760 Issues in School Counseling	
CNS 762 Issues in Clinical Mental Health Counseling	
CNS 770 Classification of Mental and Emotional Disorders	
CNS 771 Clinical Mental Health Counseling	

## Policies and Procedures

### Continuing Eligibility

Satisfactory academic progress in the Master of Arts in Counseling portion of the program is defined as maintaining a B or better grade point average. Expectations of personal and professional behaviors and/or attitudes are outlined in the Department of Counseling "Evaluation

and Continuation Policy." Continuing eligibility in the Master of Divinity program is outlined in the School of Divinity's Continuing Eligibility Policy.

## Education, MDiv/MA Joint Degree

This degree promotes interdisciplinary conversation between theological education, public education, and community engagement. The degree provides students pathways for developing skills and acquiring competencies necessary for achieving excellence in careers where religious leadership and education intersect.

The Master of Arts in Education is fully accredited by the North Carolina Department of Public Instruction (NCDPI) and by the National Council for Accreditation of Teacher Education (CAEP), and is well respected for its high academic standards and nationally recognized faculty.

Four different programs are available for the Education portion of the dual degree. The Master Teacher Fellows (MTF) program is for candidates who seek the initial teaching license. The MTF-S program is for the secondary (9-12) license. The MTF-E program is for the elementary license. The Master Teacher Associates (MTA) program is for candidates who hold a current teaching license and seek an advanced license. The Master of Educational Studies (MES) program is for candidates who are not seeking a teaching license.

## Requirements

This joint degree is designed to be completed in seven semesters and two full summer sessions (based on full-time enrollment), for a total of 92 credit hours for the MTA and MES tracks, and 97 credit hours for MTF-S track. The MTF-E track is designed to be completed in eight semesters and two full summer sessions (based on full-time enrollment), for a total of 103 credit hours.

**Students are required to complete 56 hours toward the Master of Divinity Degree.**

Code	Title	Hours
<b>Biblical Studies</b>		
BIB 521	Old Testament Interpretation I	3
BIB 522	Old Testament Interpretation II	3
BIB 541	Introduction to New Testament	3
BIB 542	Interpreting New Testament Letters	3
or BIB 542	Interpreting New Testament Letters	
Biblical Studies elective		3
<b>Historical and Theological Studies</b>		
HIS 501	History of Christianity	3
HIS 502	History of Christianity II	3
HIS 501	History of Christianity	3
Theology elective		3
THS 521	Foundations of Christian Ethics	3
or THS 522	History of Theological Ethics	
<b>Ministerial Studies</b>		
MIN 501	Art of Ministry I: Introduction to the Life and Work of Ministry	2
MIN 601A	Art of Ministry II: Shared Wisdom: Reflective Practice in Ministry	3
or MIN 601B	Art of Ministry II: Shared Wisdom: reflective Practice in Ministry	
Proclamation		3

Relational Care	3
Community Building	3
Formation	3

**General Electives**

Students in the joint degree program are required to take at least 10 hours of divinity electives. 10

**Paths**

Select one of the following paths toward the Master of Education degree: 36-47

Master Teacher Fellows (MTF-Secondary) (seeking initial licensure)	
Master Teacher Fellows (MTF-Elementary) (seeking initial licensure)	
Master Teacher Associates (MTA) (already licensed, seeking advanced licensure)	
Master of Educational Studies (MES) (not seeking licensure)	

**Master Teacher Fellows (MTF-Secondary) (seeking initial licensure)**

Code	Title	Hours
EDU 721	Educational Research	3
EDU 712	Learning & Cognitive Science	3
EDU 707	Educational Policy & Practice	3
EDU 654	Content Pedagogy	3
EDU 654L	Content Pedagogy Rounds	2
EDU 717	Instructional Design, Assessment and Technology	3
EDU 715	Action Research	3
Content Course or EDU course		3
EDU 664L	Student Teaching Internship	9
EDU 665	Professional Development Seminars	3
EDU 758	Studies in Educational Leadership	3
EDU 716	Professional Growth Seminar	3

**Master Teacher Fellows (MTF-Elementary) (seeking initial licensure)**

Code	Title	Hours
EDU 612	Teaching Children with Special Needs	3
EDU 614L	Elementary Teaching Rounds	2
EDU 641	Teaching Elementary Literacy	3
EDU 642	Teaching Elementary Social Studies	3
EDU 643	Teaching Elementary STEM (Science, Technology, Engineering, Mathematics)	3
EDU 650L	Student Teaching: Elementary	9
EDU 655	Professional Seminar: Elementary	3
EDU 707	Educational Policy & Practice	3
EDU 712	Learning & Cognitive Science	3
EDU 715	Action Research	3
EDU 716	Professional Growth Seminar	3
EDU 717	Instructional Design, Assessment and Technology	3
EDU 721	Educational Research	3
EDU 758	Studies in Educational Leadership	3

**Master Teacher Associates (MTA) (already licensed, seeking advanced licensure)**

Code	Title	Hours
EDU 721	Educational Research	3
EDU 712	Learning & Cognitive Science	3
EDU 707	Educational Policy & Practice	3
EDU 717	Instructional Design, Assessment and Technology	3
Content or EDU Course		3
EDU 715	Action Research	3
Content or EDU Course		3
Content or EDU Course		3
Content or EDU Course		3
Content or EDU Course		3
EDU 758	Studies in Educational Leadership	3
EDU 716	Professional Growth Seminar	3

**Master of Educational Studies (MES) (not seeking licensure)**

Code	Title	Hours
EDU 721	Educational Research	3
EDU 712	Learning & Cognitive Science	3
EDU 707	Educational Policy & Practice	3
EDU 717	Instructional Design, Assessment and Technology	3
Content or EDU Course		3
EDU 715	Action Research	3
Content or EDU Course		3
Content or EDU Course		3
Content or EDU Course		3
Content or EDU Course		3
EDU 758	Studies in Educational Leadership	3
EDU 716	Professional Growth Seminar	3

## Policies and Procedures

### Advising

Each student in the joint program will be assigned a faculty adviser from each school with whom they are expected to meet regularly throughout their enrollment in the program.

### Continuing Eligibility

The Graduate School requires that a student maintain a minimum cumulative GPA of 2.5. This requirement applies to the MA component of the joint degree program. A student who fails to satisfy this requirement will be placed on academic probation and will have one semester to bring their GPA to 2.5 or greater; otherwise, the student may be dismissed from the program. The minimum GPA required for successful completion of the MA portion of the degree is 3.0. Continuing eligibility requirements for the School of Divinity are outlined in the School of Divinity's Continuing Eligibility Policy.

## JD/MDiv Joint Degree

The School of Divinity, in partnership with the School of Law, offers a five-year, joint degree program, Juris Doctor and Master of Divinity (JD/

MDiv). The program provides a vocational perspective different than that available in separate law or divinity degree concentrations. The program also enriches the learning and experience of students who want to pursue careers in either discipline. The joint degree curriculum meets standards set by the accrediting bodies of each partner.

## Requirements

### Plan of Study and Requirements

Students in the joint degree program must complete all requirements of each program. Students may choose to complete their first two years of study in either the School of Divinity or the School of Law. Two additional years of study are then undertaken in the alternate school. The fifth and final year includes joint degree electives offered each academic year as determined and scheduled by each school. Upon successful completion of the joint degree requirements, students receive both the Juris Doctor and the Master of Divinity degrees.

When undertaken as part of the joint JD/MDiv program, the MDiv degree requires completion of 64 hours of divinity coursework including the degree requirements prescribed by the School of Divinity for graduation. When undertaken as part of the joint JD/MDiv program, the JD degree requires completion of 75 hours of law coursework including the degree requirements (<http://academics.law.wfu.edu/degree/jd/>) prescribed by the law school for graduation.

**Students are required to complete 64 hours toward the Master of Divinity Degree.**

Code	Title	Hours
<b>Biblical Studies</b>		
BIB 521	Old Testament Interpretation I	3
BIB 522	Old Testament Interpretation II	3
BIB 541	Introduction to New Testament	3
BIB 542	Interpreting New Testament Letters	3
or BIB 543	Interpreting New Testament Gospels	
Biblical Studies elective		3
<b>Historical and Theological Studies</b>		
HIS 501	History of Christianity	3
HIS 502	History of Christianity II	3
THS 501	Christian Theology	3
Theology elective		3
THS 521	Foundations of Christian Ethics	3
or THS 522	History of Theological Ethics	
<b>Ministerial Studies</b>		
Art of Ministry Program:		
MIN 501	Art of Ministry I: Introduction to the Life and Work of Ministry	2
MIN 602A	Internship Reflection Seminar	1.5
MIN 602B	Internship Reflection Seminar	1.5
Two 200-hour ministry internship placements (as described in the Art of Ministry Program section above)		1.5
MIN 705	Third Year Capstone	1.5
Required Ministerial Studies Electives:		
Proclamation *		3
Relational Care *		3
Community Building *		3

Formation *	3
<b>General Electives</b>	
Select 14 hours of electives	14
<b>Total Hours</b>	<b>64</b>

\* Courses fulfilling these requirements are offered each semester.

**Students are required to complete 75 hours toward the Juris Doctor Degree.**

## Policies and Procedures

### Advising

Students will be assigned a faculty adviser from each school, and are required to meet with their advisers at least once during each semester of the five-year program. Course selection is made in consultation with advisers.

### Fifth Year

During the fifth year of the program, students register in and pay tuition to the School of Divinity during one semester, subsequently registering in and paying tuition to the School of Law during the remaining semester. During the School of Divinity fifth-year semester, students may take courses in the School of Divinity, courses crosslisted with the School of Law, or courses offered by other schools or departments of the University as approved by the School of Divinity. A similar process applies to the School of Law fifth-year semester.

### Continuing Eligibility

Students in the School of Law must maintain at least a 73 average during each academic year enrolled in order to remain academically eligible for the School of Law. A student who earns at least a 73 average but ranks in the lowest 20 percent of the class at the end of the first year of the program will be strongly advised to take courses during the final three semesters in the School of Law that cover subjects related to the Bar Examination. Continuing eligibility in the Master of Divinity program is outlined in the School of Divinity's Continuing Eligibility Policy.

## Master of Divinity

The Master of Divinity (MDiv) degree stands at the center of the School of Divinity's degree offerings. The program prepares students through diverse ministry experiences and theological perspectives for religious leadership. The program encourages students to engage the rich histories and traditions of Christian congregations, to increase awareness and understanding of issues facing churches in their local and global contexts, and to integrate their knowledge of varied theological and ministry disciplines with what they encounter in ministry settings and in the world.

## Goals for the Master of Divinity Degree

Students who graduate with the Master of Divinity degree from the Wake Forest University School of Divinity shall demonstrate a broad variety of competencies for religious leadership that promotes justice, reconciliation, and compassion, including:

- Academic integration of Christian traditions, theologies, scriptures, and practices.
- Sustained vocational reflection and spiritual formation that inform ministry in pluralistic contexts.

- Innovative application and embodiment of a range of ministerial practices for a continually transforming religious world.
- Theologically informed analysis of social, cultural, political, and ecological systems within a variety of particular settings.

The Master of Divinity degree is a 78-hour program designed to be completed in three years of full time, residential study. Students may also pursue the degree on a part-time basis with permission of the associate dean of academic affairs and the senior associate dean. The maximum length of time allowed to complete the program is six years.

## Denominational Studies

The School of Divinity is committed to educating persons who are pursuing ministry within a wide array of Christian denominations and traditions.

Denominational studies courses in the School of Divinity are designed to support students as they explore professional affiliations, cultivate diverse denominational and congregational connections, and prepare for ordination within particular denominational and congregational entities.

As a first step in exploring denominational affiliations, students are encouraged to consult with appropriate denominational representatives to learn about opportunities for service and, where appropriate, requirements for ordination. Students are encouraged to consult with denominational advisers and representatives as they choose settings for required internships as these internships give students opportunities to explore denominational ministry in congregations or agencies.

Courses specific to some denominations are taught regularly at the School of Divinity by denominational leaders. These courses are designed to introduce students to denominational theologies and politics and to assist students with preparation for denominational ordination exams. A student may also request that the associate dean of academic affairs explore course offerings specific to their denominational affiliation. Other opportunities for preparation for ministry within particular denominations include independent study, clinical pastoral education, transfer credit, and the Episcopal Studies concentration.

Some of these courses fulfill Community Building or other elective requirements.

## Moravian Studies

The city of Winston-Salem, NC is shaped by its Moravian heritage and a rich on-going Moravian presence. While enrolled at Wake Forest University School of Divinity, students seeking candidacy for ordination in the Moravian Church may earn the twelve-credit Certificate in Moravian Studies online through Moravian Theological Seminary, as well as complete internships at local Moravian churches.

The Certificate in Moravian Studies is offered as a possible alternative to a year of residential study at Moravian Seminary in partial fulfillment of requirements for ordination. Interested students should first contact the Provincial Elders' Conference (PEC) regarding this possibility. If approved, The School of Divinity and Moravian Seminary will work with the PEC to advise interested students. Tuition assistance for the Certificate is available through the PEC.

All courses must meet ATS requirements for transfer credit to apply toward the WFU MDiv degree. Additional eligible courses from Moravian Seminary, beyond the Certificate in Moravian Studies, may be accepted for transfer with a written recommendation from the PEC that these

courses are required preparation for ordination in the Moravian Church. Contact: PEC office.

## Requirements

### The Master of Divinity Curriculum

The Master of Divinity curriculum is composed of four categories of courses:

**Required courses:** Required of all students; may be prerequisites for other courses.

**Required elective courses:** Biblical Studies elective, Theological Studies elective, and Ministerial Studies electives in Proclamation, Relational Care, Community Building, and Formation.

**General elective courses:** Chosen by students in consultation with their advisers and may include courses from other University departments and schools.

**Area requirements:** Required of all students; designated from among required courses, required elective courses, and general elective courses; may include courses from other University departments and schools.

## Language Requirement

To graduate with the MDiv degree from Wake Forest University School of Divinity, students must have a basic proficiency in a language other than their own. Basic proficiency in another language is important as students undertake ministry in multicultural settings and engage a broad range of theological traditions and voices.

Normally students will demonstrate that proficiency by:

1. Prior documented foreign language study at the bachelor's level (a minimum of six credit hours in one language);
2. Achievement of placement into the 153-level (third semester) or higher on the Wake Forest University online foreign language placement test; or
3. Six credits of ancient or modern language coursework as part of the MDiv degree. The six credits must all be in the same language. If a student has completed only three credits in a particular language, she or he can complete the requirement in our program by taking another three hours of the same language.
4. When language courses are taken only for general elective credit, then they may be taken on a pass/fail basis.

## Required Courses and Required Electives

Required courses and required electives provide students with foundational theological and ministerial knowledge and skills for the practices of ministry and religious leadership in diverse settings.

## General Electives

Students can choose from a variety of graduate level courses offered in the School of Divinity and in other schools and departments of the University (subject to course availability and suitability to the overall requirements for the Master of Divinity degree).

## Area Requirements

Students can choose from a variety of graduate level courses offered in the School of Divinity and in other schools and departments of the University that meet the requirements of the five areas:



1. Cross-Cultural Connections (CC);
2. Race and Class (RC);
3. Gender and Sexuality (GS);
4. Religious Pluralism (RP); and
5. Science, Health, and Ecological Well-Being (SE).

Ordinarily, these are three-credit courses. Some three-credit courses may fulfill more than one area. No more than two one-credit courses may count toward area requirements. Students may apply one independent study course toward these requirements.

On rare occasions, a student may petition the Curriculum and Academic Policy Committee to identify a substitute for one of the five areas. The proposed substitution must relate to an area that reflects changing 21st-century patterns of religious life and comport with the rubric for these courses outlined by the committee.

## The Art of Ministry Program

The Art of Ministry curriculum provides a three-year framework for integrating theory and practice while exploring vocational identity. The curriculum is designed to prepare students for ministry in a changing world by creating space for both theological reflection and the development of key professional skills.

The Art of Ministry curriculum consists of both coursework and internship placements in the following progression:

### MDiv Year 1: Introductory Course

MIN 501 Art of Ministry I: Introduction to the Life and Work of Ministry is a required first-year seminar providing a forum for dialogue among students, faculty, and religious leaders about pressing issues facing the church and ministry in the 21st century. This course will introduce students to the complexity of vocation in general and ministerial vocations in particular across a variety of contexts. The course meets weekly in a 75-minute plenary session as well as an hour-long peer group meeting, typically in the fall term.

### MDiv Years 2 and 3: Internships

All students are required to complete two internships following the first year of the program: a primary internship and a secondary internship. The internship placements are 200 hours each. Internship placements are required for graduation. With the exception of Clinical Pastoral Care (CPE) internships (described below), internships do not count toward credit hours.

#### Primary Internship: Option 1

- Internship completed during the academic year, 100 hours in the fall semester and 100 hours in the spring semester
- Complete two reflection seminar courses during the internship: MIN 602A ("Internship Reflection Seminar") in the fall term for 1.5 credit hours and MIN 602B in the spring term for 1.5 additional credit hours.

#### Primary Internship: Option 2

- Clinical Pastoral Education (CPE) chaplaincy internship placement at Wake Forest Baptist Hospital completed during the academic year, 200 hours in the fall semester and 200 hours in the spring semester
- Complete two reflection seminar courses during the internship: MIN 636A ("Clinical Pastoral Education I") in the fall term for 3 credit hours and MIN 636B ("Clinical Pastoral Education II") in the spring term for 2 additional credit hours.

#### Primary Internship: Option 3

- Complete a summer unit of Clinical Pastoral Education (CPE) through any program accredited by the Association for Clinical Pastoral Education.
- Submit a certificate of completion at the end of the CPE unit and receive 5 transfer elective credits toward the Master of Divinity degree.

#### Secondary Internship: Option 1

- All primary internship options described above will also satisfy a secondary internship requirement after the primary requirement has been met.
- When used for the secondary internship, a full-year internship will include only one reflection seminar course in the fall term: MIN 602C for 1.5 credit hours.

#### Secondary Internship: Option 2

- 200-hour internship completed during the summer term
- Complete one reflection seminar during the summer internship: MIN 541 for 1.5 credit hours.

## Choosing an Internship

The director of the Art of Ministry Program works with students in the spring of each academic year to arrange ministry internship placements. The director also tracks student progress toward fulfilling the two internship requirements.

Students will ordinarily select placements in two different ministry contexts for their two internships:

- Congregational Settings
- Non-Profit Organizations
- Parachurch Organizations
- Settings related to MDiv Concentrations, e.g. Food, Health, Ecology, or Sustainability.
- Settings related to joint degree programs: Bioethics, Law, Counseling, Education, Sustainability.
- Prison Ministry
- Academic/College Chaplaincy
- Hospital/Chaplaincy Settings (See Clinical Pastoral Education below)

### MDiv Year 3: Capstone Course

All third-year students will complete MIN 705, a capstone seminar for 1.5 credit hours in the fall term with two interrelated components:

1. A capstone reflection component, in which students develop a digital portfolio organizing their cumulative learning around the School of Divinity curricular standards across three areas:
  - disciplinary knowledge,
  - vocational reflection, and
  - skill development for leadership;
2. professional development component, in which students will continue vocational reflection and prepare for employment searches.

The capstone course is co-developed and co-facilitated by the director of the Art of Ministry Program and the director of Leadership Development. It is offered as a pass/fail course.

## Clinical Pastoral Education (CPE)

Clinical pastoral education is a form of theological education that takes place in clinical settings where ministry is being practiced (health care facilities, correctional institutions, hospices, congregations, and a variety of other settings). Through involvement with persons in need and with supervision from peers and supervisors, students engage issues of ministry and pastoral care while developing enhanced skills and a clearer awareness of themselves as caregivers. Students who complete a full unit of CPE earn five credit hours, according to one of the following options:

### Option 1: Fall and Spring

Upon satisfactory completion of a full unit of CPE at the Wake Forest Baptist Medical Center during the fall and spring terms, students will satisfy one of their two internship placement requirements. This option will satisfy the three-credit Art of Ministry primary reflection seminar requirement and will generate two extra elective credits. Alternatively, for students who have already completed the reflection seminar, this program will generate five elective credits.

### Option 2: Summer

Upon satisfactory completion of a full unit of CPE during the summer, students are eligible for five hours of transfer course credit and will satisfy one of their two internship requirements. In order for students to receive credit for CPE, the program in which they enroll must be accredited by the Association for Clinical Pastoral Education. A directory of accredited CPE centers is available online at <http://www.acpe.edu>.

Transfer credit for CPE will appear on a student's transcript only if application for credit is made through the Office of Academic Affairs. To receive credit, the student must have the CPE center where the program was completed provide a letter stating that a full unit of credit was awarded. Application and tuition fees for CPE are paid directly to the CPE center by the student.

Students who complete CPE within five years prior to enrollment in the Master of Divinity program may request transfer of credit equivalent to five hours for completion of a full unit of CPE at an accredited center and may use their CPE unit to satisfy one of their two internship placement requirements.

## One-credit Courses

The School of Divinity offers several types of one-credit courses.

- Topics courses introduce students to themes or perspectives of current interest within theological, spiritual, ministerial or cultural research and conversations.
- Readings courses provide students with opportunities to do intensive reading and study in particular subjects within the curriculum.
- Practicum courses provide students with opportunities to receive course credit for applied disciplines such as planning community worship.

One-credit courses are designed and taught by School of Divinity and University faculty and by visiting professors. Only four practicum course hours can be applied toward the overall degree requirements. Beyond the four-hour practicum limit, students may continue to participate in practicum courses and are not required to register for audit status.

## Master of Divinity Program Requirements

Code	Title	Hours
<b>Biblical Studies</b>		
BIB 521	Old Testament Interpretation I	3
BIB 522	Old Testament Interpretation II	3
BIB 541	Introduction to New Testament	3
BIB 542	Interpreting New Testament Letters	3
or BIB 543	Interpreting New Testament Gospels	
Biblical Studies elective		3
<b>Historical and Theological Studies</b>		
HIS 501	History of Christianity	3
HIS 502	History of Christianity II	3
THS 501	Christian Theology	3
Theology elective		3
THS 521	Foundations of Christian Ethics	3
or THS 522	History of Theological Ethics	
<b>Ministerial Studies</b>		
<i>Art of Ministry Program</i>		
MIN 501	Art of Ministry I: Introduction to the Life and Work of Ministry	2
MIN 602A	Internship Reflection Seminar	1.5
MIN 602B	Internship Reflection Seminar	1.5
Select two 200-hour ministry internship placements, as described in the Art of Ministry Program section above		1.5
MIN 705	Third Year Capstone	1.5
<i>Required Ministerial Studies Electives *</i>		
Proclamation		3
Relational Care		3
Community Building		3
Formation		3
<b>General Electives</b>		
For the remaining 28 hours of the degree program, students may choose from a broad selection of courses in the School of Divinity or approved in the University. ***		28
<b>Total Hours</b>		<b>78</b>

\* Courses fulfilling these requirements are offered each semester.

\*\* During this course of study, students must complete courses that satisfy the five area requirements:

1. Cross-Cultural Connections (CC);
2. Race and Class (RC);
3. Gender and Sexuality (GS);
4. Religious Pluralism (RP); and
5. Science, Health, and Ecological Well-Being (SE).

## MDiv/Management, MA Dual Degree Pathway

The Master of Divinity (MDiv) and Master of Arts in Management (MAM) dual degree pathway allows students to earn an intensive one year management degree and then go on to complete their MDiv in accelerated fashion. The program targets students interested in religious leadership who want the business knowledge and expertise needed to turn passion into a meaningful profession. Graduates with both MDiv and

MAM degrees will be practitioners who can work as non-profit leaders and ministry leaders on teams aimed at making a difference in the world through humanitarian agencies, church and para-church organizations, or in the marketplace. The MDiv and MAM dual degree pathway is designed to be completed over a total of three years, including summer sessions (based on fulltime enrollment).

## Requirements

Students in the MDiv and MAM dual degree pathway must complete all requirements of each program. Typically, when students complete all requirements for the MAM program, the university will confer the Master of Arts in Management degree. Students then complete the coursework required for the MDiv, with a maximum of 12 hours being transferred from the MAM toward the MDiv in order to truncate the amount of time to complete the degree. If the LEAD project for the MA in Management is completed in a non-profit setting, it can also be counted as one of the required internships for the Master of Divinity. Students may choose to complete their first year in the School of Divinity followed by a year in the School of Business, with a final year in the School of Divinity.

## Sustainability, MDiv/MA Joint Degree

The Master of Divinity/Master of Arts in Sustainability joint degree acknowledges the growing demand for professionals in religious leadership venues who have the knowledge and the skills to lead communities to respond to critical ecological and other social issues. Congregations and other religiously affiliated organizations are increasingly interested in sustainability concerns and seek leaders who can guide their efforts to respond to these concerns. Knowledge from the biological, physical, chemical, and earth sciences are critical to any working professional who designs and implements sustainability practices. The humanities and social sciences incorporate information about spirituality, religious beliefs, and an understanding and appreciation of our relationship to the natural world. The MDiv/MA is designed to be completed in seven semesters and one summer of study.

## Requirements

The degree is designed to be 93 credit hours completed in seven semesters plus one full summer session (based on full-time enrollment).

**Students are required to complete 48 hours toward the Master of Divinity Degree.**

Code	Title	Hours
<b>Biblical Studies</b>		
BIB 521	Old Testament Interpretation I	3
BIB 522	Old Testament Interpretation II	3
BIB 541	Introduction to New Testament	3
BIB 542	Interpreting New Testament Letters	3
or BIB 543	Interpreting New Testament Gospels	3
Biblical Studies elective		3
<b>Historical and Theological Studies</b>		
HIS 501	History of Christianity	3
HIS 502	History of Christianity II	3
THS 501	Christian Theology	3
Theology elective		3
THS 521	Foundations of Christian Ethics	3
or THS 522	History of Theological Ethics	3

### Ministerial Studies

MIN 501	Art of Ministry I: Introduction to the Life and Work of Ministry	2
Select 16 credit hours of the following:		16
Proclamation (1-3h)		
Relational Care (1-3h)		
Community Building (1-3h)		
Formation (1-3h)		
MIN 561	Faith, Food, Health, and Community	
Any Ethics elective		

### Requirements Specific to the Master of Arts in Sustainability Degree

SUS 701	Global Human Systems	3
SUS 702	Sustainable Organizational Mgt	3
SUS 703	Natural Science for Sustainability	3
SUS 704	Environmental Law & Policy	3
SUS 706	Applied Sustainability: Creativity and Impact	2
Any Sustainability elective		3

### Requirements Shared by the Two Degree Programs <sup>1</sup>

MIN 602A & MIN 602B	Internship Reflection Seminar and Internship Reflection Seminar <sup>2</sup>	3
SUS 706 & MIN 706	Applied Sustainability: Creativity and Impact and Directed Reflection in Applied Sustainability <sup>3</sup>	3
Research Thesis or Extended Practicum <sup>4</sup>		4

### General Electives

Select 18 hours of electives.		18
Ordinarily, students will take 9 elective credits in Divinity and 9 elective credits in Sustainability.		

<sup>1</sup> These courses constitute the integrative foundation of the joint degree.

<sup>2</sup> In consultation with advisers from both degree programs, students will complete one, 200-hour internship placement in a setting in which they can utilize and explore sustainability concerns.

<sup>3</sup> These courses provide opportunities for students to experience sustainability in action in a variety of settings. Students will enroll in the course through the sustainability program and will be assigned a divinity faculty mentor to facilitate directed theological reflection on the experiences. The Practicum in Applied Sustainability is taken in lieu of the second MDiv internship placement requirement.

<sup>4</sup> This requirement, taken in the summer term, combines capstone courses from both degree programs. Students will prepare a research thesis, under the guidance of a faculty adviser on a topic approved in advance by the sustainability program director and the associate dean of academic affairs of the School of Divinity. Alternatively, students may participate in a summer practicum or internship. If they select that option, they will meet with a faculty adviser periodically to discuss their internship, which will culminate with a written reflection on their experience submitted to a designated faculty person in one of the two programs. The research thesis/extended practicum is taken in lieu of the third-year capstone course requirement in the MDiv program.

# Policies and Procedures Advising

Students will be assigned a primary faculty adviser from each of the degree programs. The Sustainability Program Director and the associate dean of academic affairs for the School of Divinity will consult on appropriate advising for joint degree students. During the semester preceding the thesis or capstone project, the primary adviser from each degree program will meet with the student to discuss appropriate program and course options. If a student chooses to complete the degree program with a capstone project (extended practicum), the Sustainability Program director and the Art of Ministry director will work together to determine a placement and placement activities. If a student elects the thesis option, one of the student’s primary advisers or a faculty mentor with experience in the student’s area of research will oversee thesis development.

## Continuing Eligibility

Continuing eligibility requirements prior to the student’s enrollment in the thesis or capstone project during the final summer term will be based on School of Divinity continuing eligibility policy. Prior to beginning the thesis or capstone project, a committee composed of student faculty advisers from both programs, the Sustainability Program director, and the School of Divinity Academic Dean will consider a student’s overall performance to that point and determine by consensus if the student is suited to continued candidacy. Once a student enters the final phase of the joint degree program, the academic committee will evaluate the thesis or project and determine whether to award the degree. If the committee requests revisions, the student will return a satisfactory thesis or deliverable within the following semester in order to graduate.

## Concentrations

- Episcopal Studies
- Interfaith Literacy and Leadership
- Religious Leadership in Food, Health, and Ecology
- Sustainability Concentration

The Wake Forest University School of Divinity provides an integrative, multi-disciplinary approach to theological education. One of our aims is to equip our students to be public religious leaders. Several concentrations within the Master of Divinity degree offer courses that allow students to develop skills and gain knowledge specific to particular fields of study and areas of religious leadership.

While concentrations are not required, students can choose a concentration that allows them to explore in greater depth areas of particular interest. Each concentration includes several foundational courses along with related internship requirements.

The School encourages students by the end of their second full semester of study in the MDiv program to state an interest in a concentration by submitting a “concentration declaration” form to the Office of Academic Affairs. Students will work with their faculty advisers to design an appropriate course of study for the student’s remaining semesters in the program.

Courses taken to fulfill requirements of a concentration will also count as Divinity electives.

Currently, four concentrations are available.

- An **Episcopal Studies** concentration is designed to meet the requirements for students preparing for ordained ministry in The Episcopal Church.
- An **Interfaith Literacy and Leadership** concentration is designed to provide students with opportunities for focused study of a non-Christian religious or spiritual tradition.
- A concentration in **Religious Leadership in Food, Health, and Ecology** explores the implications for and intersections of contemporary religious leadership with foodways, the health of the public, and ecology. Students may focus on one of these three tracks.
- A **Sustainability** concentration is completed through coursework offered by the Wake Forest Center for Energy, Environment, and Sustainability (CEES).

## Episcopal Studies

Adviser: John Senior

This concentration offers students a firm grounding in the polity, liturgy, history, and theology of the Episcopal Church and Anglican tradition and is designed to meet the requirements for students preparing for ordained ministry in The Episcopal Church. The concentration is 12 credit hours plus an internship in an Episcopal setting.

## Requirements

The Episcopal Studies Concentration consists of the following 12 credit hours and internship (exceptions may be requested through a petition to CAP and the concentration adviser):

Code	Title	Hours
MIN 647	Episcopal Studies I: Sacramental Theology and Liturgies	3
HIS 648	Episcopal Studies II: The Book of Common Prayer	3
MIN 648	History and Polity of the Episcopal Church	3
HIS 683	Anglican Theology and Historical Roots	3
Total Hours		12

Complete an internship in an Episcopal setting.

## Interfaith Literacy and Leadership

Adviser: Neal Walls

A religiously pluralistic society needs leaders committed to respectful and collaborative engagement with diverse faith traditions. This concentration will provide students with opportunities for focused study of a non-Christian religious or spiritual tradition and the development of the necessary leadership skills for fostering interfaith understanding and cooperation.

## Requirements

The concentration requires 12 credit hours and a capstone project approved by the concentration adviser. Students will usually complete the following progression:

- MIN 570 Exploring Interfaith Practice and Leadership (3h)
- Choose 6 hours of coursework engaging with the same non-Christian religious tradition.
- Choose 3 hours of additional coursework:



- Engaging with a different, non-Christian religious tradition -or-
- Engaging interfaith leadership, dialogue, or the comparative study of religious traditions.

Leadership Practice: an internship emphasizing interfaith literacy and leadership or similar practical project as deemed appropriate by the concentration adviser.

## Religious Leadership in Food, Health, and Ecology

Adviser: Jill Crainshaw

This concentration explores the implications for and intersections of contemporary religious leadership with foodways, the health of the public, and ecology.

For each of the tracks, the concentration is 12 credits plus an internship. Students may also complete the concentration with 15 credits from any of the tracks (or that carry the SE area requirements), plus an internship.

For students who wish to focus in one of the three areas, the following tracks are suggested. Students interested in applying to pursue this concentration should contact the adviser for one of the three tracks.

### Requirements

#### Food Track

Adviser: Jill Crainshaw

Code	Title	Hours
<b>Requirements</b>		
Select nine credits in food and faith, for example:		9
MIN 561	Faith, Food, Health, and Community	
MIN 660	Sacraments and Ordinances: History, Theologies, and Practices	
HIS 630	Culinary Culture in Black Religious Experience	
Select three credits from one of the other tracks		3
<b>Internship</b>		
Complete a food and faith internship		6

#### Health Track

Adviser: Mark Jensen

Code	Title	Hours
<b>Requirements</b>		
Select nine credits in faith and health, for example:		9
MIN 561	Faith, Food, Health, and Community	
MIN 636A	Clinical Pastoral Education I	
MIN 636B	Clinical Pastoral Education II	
MIN 638	Trauma and Resilience in the Care of Individuals and Groups	
Select three credits from one of the other tracks		3
<b>Internship</b>		
Select one of the following:		6

MIN 636A	Clinical Pastoral Education I
Other health internship	

### Ecology Track

Adviser: Jill Crainshaw

Code	Title	Hours
<b>Requirements</b>		
Select nine credits in ecological vocation, for example:		9
MIN 660	Sacraments and Ordinances: History, Theologies, and Practices	
Select three credits from one of the other tracks or courses from the Sustainability concentration		3
<b>Internship</b>		
Complete a faith and ecology internship		6

### Sustainability Concentration

Adviser: Mark Jensen

The Wake Forest Center for Energy, Environment, and Sustainability (CEES) and the School of Divinity provide students with exposure to sustainability issues through the Sustainability concentration. The concentration requires the completion of 12 credit hours in sustainability coursework related to natural science, social sciences and humanities, business management, and law and policy. An application is required.

### Requirements

Students who elect to pursue this concentration will be required to complete 12 credit hours of the following SUS courses as electives toward the 78 hours of the MDiv. Students must complete SUS 701 (Global Human Systems) and SUS 691 (Inventing Your Future). Students must complete 7.5 hours of additional Sustainability courses:

Code	Title	Hours
<b>Fall Courses</b>		
SUS/CDS 701	Global Human Systems	3
SUS 703	Natural Science for Sustainability	3
SUS 705	Applied Sustainability 1	2
<b>Spring Courses</b>		
SUS 691	Special Topics ( Inventing Your Future)	1.5
SUS 702	Sustainable Organizational Mgt	3
SUS 704	Environmental Law & Policy	3
SUS 706	Applied Sustainability: Creativity and Impact	2

A variety of 1h optional electives are also available each year.

Although these credit hours can be completed during any year of the Master of Divinity program, students with this concentration are considered students in the Graduate School during the final (sixth) semester of their course of study.

## Related Programs at Wake Forest University

- Religious Studies, Master of Arts
- Women's, Gender, and Sexuality Studies, Graduate Concentration

### Religious Studies, Master of Arts

**The Master of Arts in Religious Studies is administered by the Department for the Study of Religions and the Graduate School of Arts and Sciences.** The Master of Arts in Religious Studies provides students an opportunity to forge a unique, creative, and rigorous program of study. The degree can serve either as a terminal degree or as preparation for a doctoral program. It emphasizes the comparative and theoretical study of religion in its various traditions and forms. Reflecting the teaching and research interests of the current graduate faculty in the department, the program fosters interdisciplinary approaches, offering training in traditional and contemporary theories and methods in conjunction with substantive investigations of diverse religious traditions and topics. Students are encouraged to make imaginative use of all available resources in the creation of their own distinctive programs of study. Typically, this would involve:

1. focus on a particular religious culture/region or historical period, and
2. an approach or approaches to the study of the subject area.

Ordinarily, applicants for admission into the MA in Religion program majored in religious studies in their undergraduate coursework. The Department will consider applications from students who have majored in other social science or humanities disciplines and who have focused on the topic of religion. Admission is based on the degree of success in previous courses in religion, the clarity of the applicant's educational goals, and the general potential for successfully engaging in graduate-level work within the program. Additional information about the program is available here (<https://religion.wfu.edu/ma-program-in-religious-studies/>).

### Women's, Gender, and Sexuality Studies, Graduate Concentration

Director: Dr. Wanda Balzano

The graduate concentration in Women's, Gender, and Sexuality Studies (<https://wgss.wfu.edu/graduate-concentration/>) at Wake Forest will provide graduate students the opportunity to study gender and sexuality from a variety of disciplinary perspectives in conjunction with their study toward a graduate degree. Interdisciplinary by nature, Women's, Gender, and Sexuality Studies courses primarily address the diversity of gendered experiences based on race, ethnicity, class, religion, nationality, and sexual orientation. The graduate concentration is an appropriate option for graduate students who wish to focus on gender and/or sexuality in their particular disciplinary field.

### Other Program Opportunities

- Hispanic Summer Program

### Hispanic Summer Program

Wake Forest University School of Divinity is a sponsoring institution of the Hispanic Summer Program, which offers seven 3-credit intensive summer courses during the month of June each year. These courses are taught by Latinx faculty from accredited colleges and universities in the USA and Puerto Rico and are geared towards Latinx students, though a number of seats are available for non-Latinx students. Students may take one course per summer. The course fee for students from sponsoring institutions is \$425, which covers tuition, room and board, and up to \$500 air fare.

# COURSES A-Z

## B

- Biblical Studies (BIB)

## C

- Cross Disciplinary Studies (CDS)

## H

- Historical Studies (HIS)

## I

- Independent Study (IDS)

## M

- Ministerial Studies (MIN)

## S

- Spirituality (SPI)

## T

- Theological Studies (THS)

## Requirements

The School of Divinity reserves the right to change programs of study, academic requirements, and assignment of lecturers. The courses listed here are a sample of the courses offered in the School of Divinity. These courses, with the exception of some required courses, are not necessarily taught each semester or each academic year. Their availability is a function both of staffing constraints and student demand. While no guarantees about future scheduling can be made, students are encouraged to alert advisers and the associate dean of academic affairs to course needs or desires. An official list of courses offered in each semester and summer session is issued through the Office of Academic Affairs during the preceding term. Required courses are indicated by the symbol "R" following the course number and name. Course prerequisite requirements are indicated by the symbol "P" following the course name and number. Courses that require the permission of instructor in order to enroll are indicated by the symbol "POI." Unless otherwise specified courses listed here count as 3 hours (3h).

## Area Requirements

Each semester, courses in the School of Divinity and the University are designed as meeting the area requirements in five areas:

1. Cross-Cultural Connections (CC);
2. Gender and Sexuality (GS);
3. Race and Class (RC);
4. Religious Pluralism (RP); and
5. Science, Health, and Ecological Well-Being.

To fulfill the Cross-Cultural Connections requirement, students may complete one course with a travel component to a place outside the student's home region. Courses vary each year. Details about each

academic year's courses can be found on the school's website or in the course listings below.

## Biblical Studies (BIB)

### BIB 501. Elementary Hebrew I. (3 h)

A course for beginners in the classical Hebrew of the Bible, with emphasis on the basic principles of grammar and the reading of biblical texts. Core requirement is met only after both semesters are completed.

### BIB 502. Elementary Hebrew II. (3 h)

A course for beginners in the classical Hebrew of the Bible, with emphasis on the basic principles of grammar and the reading of biblical texts. Core requirement is met only after both semesters are completed.

### BIB 503. Intermediate Hebrew. (3 h)

A course for beginners in the classical Hebrew of the Bible, with emphasis on the basic principles of grammar and the reading of biblical texts.

### BIB 504. Advanced Hebrew. (3 h)

Permission of Instructor.

### BIB 511. Intro to New Testament Greek I. (3 h)

A beginning course in koine Greek, covering the fundamentals of grammar, with extensive reading in New Testament texts. Core requirement is met only after both semesters are completed.

### BIB 512. Intro to New Testament Grk II. (3 h)

A beginning course in Koine Greek covering the fundamentals of grammar with extensive reading in New Testament texts. Core requirement is met only after both semesters are completed.

### BIB 521. Old Testament Interpretation I. (3 h)

An introduction to the history, literature, and religion of ancient Israel. This course covers the Pentateuch and Former Prophets.

### BIB 522. Old Testament Interpretation II. (3 h)

An introduction to the history, literature, and religion of ancient Israel. This course covers the Latter Prophets and the Writings.

### BIB 541. Introduction to New Testament. (3 h)

This course provides an overview of New Testament texts and contexts. Students will explore the content, historical context, literary structures, and theological perspectives of New Testament texts. In addition, students will learn some basic tools for biblical interpretation.

### BIB 542. Interpreting New Testament Letters. (3 h)

This course focuses on the early Christian epistolary tradition, deepening students' knowledge of Pauline letters, catholic letters, and texts often associated with letter writers (e.g. Hebrews). Students will intensify their ability to use a variety of exegetical tools for New Testament interpretation and begin to explore different interpretive frameworks. Prerequisite: BIB 541.

### BIB 543. Interpreting New Testament Gospels. (3 h)

This course focuses on the early Christian gospel tradition, deepening students' knowledge of canonical gospel texts (including Acts). Students will intensify their ability to use a variety of exegetical tools for New Testament interpretation and begin to explore different interpretive frameworks. Prerequisite: BIB 541.

### BIB 611. Intermediate Readings in Koine Greek. (1-3 h)

Prerequisite: BIB 511 and 512 or equivalent.

**BIB 612. Angels and Demons. (3 h)**

An exploration of angelic and demonic figures in the biblical text and in the history of interpretation in Jewish, Christian, and Muslim traditions. This course will also consider the portrayal of angels (some fallen) in contemporary fiction, television, and film.

**BIB 613. Interim Reading Classic Greek. (3 h)**

Permission of Instructor.

**BIB 615. Myth and Scripture: The Bible and Ancient Near Eastern Myth. (3 h)**

This seminar explores biblical texts that depict the creation of the world, divine combat, and the abode of the dead within their ancient Near Eastern mythological contexts. We will study Genesis 1–11 and Babylonian creation myths (Enuma Elish, Atrahasis and others); the Ugaritic Baal Cycle and biblical traditions of God's defeat of the Dragon and Sea (e.g. Isaiah 51, Revelation 12); and descents to the Netherworld (Nergal and Ereshkigal, The Descent of Ishtar, Isis and Osiris, Isaiah 14, and others). Goddess traditions may receive special attention.

**BIB 616. Myths of Creation. (3 h)**

This course explores a variety of ancient and "primitive" mythological texts concerned with the origins of the cosmos, the gods, and humanity. Selections from Hindu, Buddhist, Native American, Babylonian, Egyptian, Hebrew, Greek, Persian, and Norse mythology are examined within their respective cultures as well as in a comparative context. Attention is given to various anthropological and psychological theories of myth and literary methods of myth analysis. We also explore Genesis 1-3 and the creative reinterpretation of the Biblical images of Adam and Eve in the Garden of Eden. The course concludes with a consideration of the survival of myth in the postmodern world and the relationship of the mythological imagination to recent scientific explanations of universal origins and cosmology.

**BIB 617. The Bible and Film. (3 h)**

This course explores the different ways in which the Bible, theology, and film can be placed into mutually critical conversation. While some attention is given to how the Bible and its stories are depicted in film, the goal of the class is to construct enriching dialogues between specific biblical texts and recent films of various kinds. How can biblical texts provide new lenses for our viewing of films? In what ways can films enrich our understanding and interpretation of Scripture? How can films be used in congregational settings to deepen our theological reflection and engagement?

**BIB 618. Egypt and Babylon: Ancient Near Eastern Myth. (3 h)**

An introduction to ancient Egyptian, Babylonian, and Canaanite myths and their relation to the biblical tradition. This course examines the ancient Near Eastern context within which Israelite religion and literature developed. Topics include myths of creation and destruction, prayers and incantations, gods and goddesses, wisdom literature, and fertility and funerary cults discovered in the archaeological remains of these early civilizations. Primary readings in the world's oldest literatures will include such texts as the Epic of Gilgamesh, Ishtar's Descent to the Netherworld, Isis and Osiris, the Book of the Dead, and the Baal Cycle.

**BIB 619. Africa and the Bible. (3 h)**

This seminar explores the significance of Africa and Africans within biblical literature, with a primary focus on ancient Egyptian history and literature. Topics include Egyptian myth, magic, and poetry; the history and stories of Joseph, Exodus, and the Holy Family in Egypt; and biblical characters such as Hagar, the Queen of Sheba, the Black Pharaohs, and the Ethiopian eunuch. We will also survey the history of Judaism and Orthodox Christianity in Egypt, Meroë, and Ethiopia (including Rastafarianism) before concluding with some contemporary (post-colonial) readings of the Bible in Africa.

**BIB 625. The Major Prophets. (3 h)**

A close reading (exegesis) of Jeremiah, Isaiah, or Ezekiel with traditional and contemporary methods. Topics will vary between the study of a single book and particular historical contexts (preexilic, exilic, and postexilic). P-BIB 522.

**BIB 627. Proclaiming Judges: Tales of Sex and Violence. (3 h)**

Many Hebrew Bible texts contain disturbing images and stories related to sex, gender, and violence. Examples include Deborah and Jael, Jephthah's daughter, the Samson narrative, the rape of the unnamed Levite's concubine, and Ruth's apparent seduction of Boaz. This course will examine in detail these stories and others as they appear in the books of Judges and Ruth. As a MIN offering in the Proclamation area, the course will move from exegesis and ancient literature to look at how Christian communities have dealt with, and should continue to deal with, these difficult and impious texts in preaching, liturgy, and religious education. The course will include analysis of how these texts have been presented in modern film, books, and music and in some Christian children's resources, such as Veggie Tales.

**BIB 629. Genesis: Creation and Covenant. (3 h)**

A close reading (exegesis) of the book of Genesis with traditional and contemporary methods. P-BIB 521.

**BIB 630. Daniel: Stories and Visions. (3 h)**

A close reading (exegesis) of the book of Daniel with traditional and contemporary methods. P-BIB 522.

**BIB 631. The Five Scrolls of the Jewish Festivals. (3 h)**

A literary and theological study of Esther, Ruth, Lamentations, Song of Songs, and Qoheleth (Ecclesiastes) as canonical books and as festival readings in the Jewish liturgical year.

**BIB 633. The Book of Psalms: Poetry and Spirituality. (3 h)**

An examination of the development, literary characteristics, and theological contents of the works of ancient Israel's sages and poets.

**BIB 642. Women and Slaves in the New Testament. (3 h)**

This course explores the role of marginalized persons, particularly women, enslaved people, and impoverished people in the texts and contexts of the New Testament. Students will explore intersectional historical, literary, and theological frameworks for better understanding New Testament interpretation for and with contemporary faith communities.

**BIB 645. The Gospel of John. (3 h)**

A study of the Johannine community and writings, with attention to both socio-historical and theological dimensions of the texts. P-BIB 541.

**BIB 651. Reading Our Common Scriptures: Jewish-Christian Dialogue. (3 h)****BIB 661. Feminist Interpretations of the Bible. (3 h)**

An exploration of feminist hermeneutics for the reading of biblical texts.



**BIB 666. The Book of Revelation. (3 h)**

From visions of heavenly worship to visions of renewed creation, from fantasmic monsters to epic battles, the book of Revelation remains one of the most enigmatic texts in our scriptural canon. In the first half of this course, students will explore the historical context, including contemporaneous apocalyptic literature, archaeological materials, and early Christian uses of the Revelation of John. The second half of the course will turn to an examination of modern interpretations of Revelation found in popular literature (e.g. Left Behind series), political discourses, and contemporary Christianity. We will focus on how these interpretations manifest theologically and ethically in the life of the church. P-BIB 541.

**BIB 669. Gender and Family in Early Christianity. (3 h)**

Examines how early Christians variously construed masculinity and femininity, as well as sexuality and the body, and how they configured social institutions, such as family, household, and church in relation to gender. Focuses on texts from the first three centuries, including portions of the New Testament, extra-canonical Christian works, and some non-Christian Greco-Roman texts.

**BIB 701. Readings in Hebrew. (1-3 h)**

Directed study for those who have completed the required courses and one intermediate course in Biblical Hebrew. Permission of Instructor.

**BIB 711. Advanced Readings in Greek. (1-3 h)**

An opportunity to read early Christian texts in Greek at an intermediate level for one to three hours a week. Readings and meeting times are decided by students and the instructor.

**BIB 726. Special Studies in Early Christianity. (3 h)**

Topical studies in early Christian history and literature, both canonical and non-canonical. One topic will be studied each time the course is offered. Examples include: Gender in Early Christianity; Early Christians and Their Scriptures; Early Christian Asceticism. Also listed as HIS 732. P-BIB 542.

**BIB 741. Jesus in History, Literature, and Culture. (3 h)**

A study of the post-Enlightenment quest for the historical Jesus, placing this quest into conversation with contemporary depictions of Jesus in film and other media. P-BIB 541.

**BIB 790. Topics in Biblical Studies. (1-3 h)**

Courses in biblical studies can be developed and offered on a one-time basis using this designation.

**BIB 790A. Topics in Biblical Studies. (1-3 h)****BIB 790B. Topics in Biblical Studies. (1-3 h)****BIB 790C. Topics in Biblical Studies. (1-3 h)**

## Cross Disciplinary Studies (CDS)

**CDS 510. Nicaragua. (3 h)****CDS 512. Introduction to Research and Writing. (1 h)**

This course will introduce students to writing and research in biblical and theological studies. Students will learn the foundational aspects of planning, writing, and revising academic papers as well as how to access and evaluate resources for research. We will also discuss important reading strategies, organizational practices, and appropriate citations.

**CDS 612. Advanced Research and Writing. (1 h)**

This course will introduce students to advanced writing and research methods in biblical and theological studies. Through assignments such as preparing annotations for specific types of research sources and learning strategies for completing significant writing projects, students will develop skills that will support their work in the School of Divinity and any future graduate degrees they may pursue.

**CDS 701. Global Human Systems. (3 h)**

This course will draw on anthropology, sociology, and health sciences to focus on the global social outcomes of decision making and resource management, with an emphasis on sustainability in cultural contexts. Topics that will be covered include sustainable community development, agricultural policy, the effects of sustainability policy choices on public and community health, and public policy regulating the built environment. Students will look at these through the lens of environmental ethics and learn to think critically about the interdependence of economic and environmental policy and community well-being. After studying sustainability initiatives in developing nations, they should be able to realistically assess the feasibility of development strategies in various societies.

**CDS 712. Preparation for Advanced Study. (1 h)**

This workshop, led by a variety of WFUSD faculty, offers a cohort and mentorship for students currently applying for doctoral and other advanced programs. Students will 1) narrow their choice of programs and potential advisers in their discipline; 2) refine a previous research project into a writing sample; 3) write and revise statements of purpose for each application; and 4) practice their interview skills. Prerequisites: a date to take the GRE if required by program, a completed research project in the student's discipline to workshop as a writing sample.

**CDS 790. Topics. (1-3 h)**

Courses in cross-disciplinary studies can be developed and offered on a one-time basis using this designation.

**CDS 790A. Topics. (1-3 h)****CDS 790B. Topics. (1-3 h)****CDS 790C. Topics. (1-3 h)**

## Historical Studies (HIS)

**HIS 501. History of Christianity. (3 h)**

This course surveys the first through the 16th centuries. Attention is given to the early Councils, the rise of the papacy, dissenting movements, and the development of the sacraments. Medieval studies include mysticism, church/state affiliations, and scholasticism. Reformation issues survey the work of Luther, Zwingli, Calvin and the Radical Reformers.

**HIS 502. History of Christianity II. (3 h)**

This course surveys the 17th through the 20th centuries. Attention is given to the rise of modernism and its impact on philosophy, theology, ecclesiology and politics. Catholic studies focus on individuals such as Sor Juana de la Cruz, Teresa of Avila, Alfred Loisy, Pius IX, John XXII and Dorothy Day, and the impact of Liberation Theology. Protestant studies examine the rise of Puritanism, missionary movements, dissenters, global Christianity, slavery and civil rights, and religions in America.

**HIS 511. Introduction to World Christianity. (3 h)**

This course will include an introduction to the emerging field of World Christianity, which calls attention to the beliefs and practices of Christian communities in Africa, Asia, Latin America, and the Pacific. Together, we will explore some of the key themes currently at the forefront of the conversation within World Christianity, including conversion, secularization, reverse mission, interreligious dialogue, migration, diasporic Christianity, and the recent surge in charismatic and Pentecostal forms of Christianity. Throughout the semester, students will have the opportunity to learn from a diverse slate of scholars, with respect to gender, race and ethnicity, nationality, theological perspective, and academic discipline. The underlying goal of the course is for students to develop a deeper understanding of their respective ministerial callings in light of the global nature of the body of Christ.

**HIS 583. Ecclesiastical Latin IV. (1-3 h)****HIS 591. African-American Religious History and Experience. (3 h)**

An exploration of the religious dimensions of African-American life from its African antecedents to contemporary figures and movements.

**HIS 594A. Egypt. (1 h)**

This course provides an historical introduction to Egypt's Muslim society as the context within which minority Christian communities have practiced their faith. By traveling to the Arab Republic of Egypt, students will directly experience Muslim culture and religion as they investigate Egypt's rich religious heritage. The class will visit numerous pharaonic, Christian, Muslim, and (historically) Jewish places of worship in the greater Cairo area and in Egypt's stunning archeological sites at the southern environs of Luxor. We will witness the grandeur of Islamic civilization in Cairo's medieval mosques and modern monuments. We will discuss the tumultuous history of Jews in Egypt while touring Cairo's historic Ben Ezra Synagogue. We will examine Christian monasticism in the place of its origin at the Wadi Natrun. Site visits to numerous Christian churches, including All Saints Anglican Church (with its Sudanese refugee congregation), will expose students to a diversity of Christian practices in Egypt.

**HIS 594B. Egypt. (2 h)**

This course provides an historical introduction to Egypt's Muslim society as the context within which minority Christian communities have practiced their faith. By traveling to the Arab Republic of Egypt, students will directly experience Muslim culture and religion as they investigate Egypt's rich religious heritage. The class will visit numerous pharaonic, Christian, Muslim, and (historically) Jewish places of worship in the greater Cairo area and in Egypt's stunning archeological sites at the southern environs of Luxor. We will witness the grandeur of Islamic civilization in Cairo's medieval mosques and modern monuments. We will discuss the tumultuous history of Jews in Egypt while touring Cairo's historic Ben Ezra Synagogue. We will examine Christian monasticism in the place of its origin at the Wadi Natrun. Site visits to numerous Christian churches, including All Saints Anglican Church (with its Sudanese refugee congregation), will expose students to a diversity of Christian practices in Egypt.

**HIS 598. O Jerusalem! Jews, Christians, and Muslims in the Holy City. (3 h)**

An introduction to the history and religious heritage of Jewish, Christian, and Muslim communities in Jerusalem and the Holy Land. Participants will metaphorically "walk the pilgrim's road" as we trace the historic development of Judaism, Christianity, and Islam from their ancient origins, through the medieval period and Crusades, into the modern controversies around colonialism, Zionism, and contemporary politics. Special attention will be given to the city of Jerusalem through the ages; the spirituality of pilgrimage; Hasidism, Kabbalah, and modern ultra-Orthodox Judaism; the art and architecture of the Dome of the Rock and Al-Aqsa mosque; the Via Dolorosa, the Church of the Holy Sepulcher, and other pilgrimage sites on the Mount of Olives; Eastern Orthodox Christian communities; and diversity within each of the Abrahamic traditions (including Baha'i and Druze sects) in the Holy Land.

**HIS 611. Early Christianity. (3 h)**

A close reading of primary sources and a consideration of the art, architecture, and music as well as archeological evidence of the period.

**HIS 630. Culinary Culture in Black Religious Experience. (1-3 h)**

An exploration of the historical, social, cultural, theological, ethnographic, and practical components of African American religious life and foodway culture. Particular attention is given to the historical relationship between eating and church life, highlighting diverse and creative forms of culinary expression in the African American faith tradition and the ways in which food becomes transformative for those struggling for human dignity.

**HIS 631. Hist of Medieval Christianity. (3 h)**

A study of major themes and events in the medieval churches.

**HIS 632. Spirituality of the Middle Ages. (3 h)**

A close reading of primary sources and a consideration of the art, architecture, music, and other archeological evidence of the period.

**HIS 648. Episcopal Studies II: The Book of Common Prayer. (3 h)**

This course will study the history and evolution of The Book of Common Prayer as well as possible future developments. As the current trend has been to add liturgies instead of revise the Prayer Book, this course will also examine the rites authorized by General Convention supplements.

**HIS 651. The Protestant and Catholic Reformations. (3 h)**

A study of the origin and development of Reformation theology and ecclesiology.

**HIS 652. Radical Christian Movements. (3 h)**

A study of selected radical movements in the Christian tradition and their relation to contemporary issues.

**HIS 659. Muslims in America, Muslims are America. (3 h)**

One hundred and twenty miles to our southeast, the grave of Omar ibn Said is obscured by overgrown vines in Fayd-il (Fayetteville, NC). An Islamic scholar from Senegal, Said was enslaved and transported to the United States where he persevered in his commitments to both Islam and the increase of knowledge. We will explore his story and dozens more as we trace the history of Muslims in the United States from before the founding of the republic to present day. The third largest religion in the U.S. and among the most racially diverse, the course will provide us with the opportunity to examine a range of issues including religious freedom, religious persecution, race, racism, and immigration. Particular points of emphasis will include Muslim-Christian relations, the growth of African-American Muslim movements in the first half of the 20th century, the life of Malcolm X, the current challenges faced by Muslim immigrants and refugees, and the phenomena of "Taqwacore" (Muslim punk music) and "Muslim cool" at the intersection of hip hop and Islam as described by Su'ad Abdul Khabeer.

**HIS 660. Islam and Interfaith Encounters in Morocco. (1.5-3 h)**

Since 1994 the historic North African city of Fes, Morocco, has hosted the annual Festival of World Sacred Music. Musicians and dancers come from across the globe to perform and share in intercultural and interfaith conversations. The nine-day festival celebrates “the spiritual heart of Islam—peaceful, pluralistic, generous and cheerful—” as it honors the diverse spiritual traditions of the world. Each day of the festival features a morning forum, an intimate afternoon concert in the courtyard of the Batha Museum, an evening performance outside the medina’s medieval gate (Bab Al-Makina), and a late-night exhibition of Sufi chants and dancing (dhikr) from various Moroccan brotherhoods. Academic topics include Islam, Sufism, world sacred music, and Moroccan culture, history, and literature.

**HIS 661. World Religions. (3 h)**

An examination of the ideas and practices of major religious traditions in their historical and cultural contexts. The primary focus is on the Hindu and Buddhist traditions, the religions of China and Japan, and Islam.

**HIS 663. Religions of Japan. (3 h)**

A study of the central religious traditions of Japan from pre-history to the present, including Shinto, Buddhism, Zen Buddhism, Christianity and Confucianism.

**HIS 664. Conceptions of the Afterlife. (3 h)**

An examination of the variety of answers given to the question: “What happens after death?” Particular attention is given to the views of Jews, Christians, Muslims, Hindus, and Buddhists and the ways their views relate to life in this world.

**HIS 665. The Main Streams of Chinese Philosophy and Religion. (3 h)**

An introduction to the most important traditions in Chinese philosophy and religion: Confucianism, Daoism (Taoism), and Chinese Buddhism or Chinese Chan (Zen) Buddhism.

**HIS 667. Islam. (3 h)**

An examination of the origins and development of Islam. Particular attention is given to the formation of Islamic faith and practice, as well as contemporary manifestations of Islam in Asia, Africa, and North America.

**HIS 671. Religions in America. (3 h)**

A study of religious traditions, events, and individuals shaping religious life in America. Attention is given to native religions, colonization, denominations, awakenings, religious liberty, the western movement and the rise of the American Self. The development of pluralism and the impact of immigration, civil rights, and new religions is studied.

**HIS 672. Interfaith Dialogue. (1-3 h)**

An exploration of the challenges and opportunities presented by the contemporary encounters between Christians and people of other religious communities.

**HIS 673. Evangelicalism in North America. (3 h)**

An examination of evangelicalism with regard to its important contributions to American religious culture, its variety in forms, and its ability to reconsider itself in an increasingly pluralistic United States.

**HIS 674. Religion and the Civil Rights Struggle. (3 h)**

Resistance to racial bias dates back to institutional slavery. This course will chart an intellectual history from antebellum America through the most publicized protest movement during the mid-to- late twentieth century—the Civil Rights Movement. Students will assess several classic and contemporary texts on radical black political thought, connecting those historical voices to contemporary religious thinking and social activism. This course will consider the ways in which faith communities, organizations, and individuals have fueled or been reinforced by African American protests and demands for equal rights. As a site of investigation, this class also will pay some attention to the history and nature of the civil rights struggle in Winston-Salem and surrounding areas. Ultimately, this class will engage the complexity of religious voices within the American freedom struggle—including Judaeo-Christians, Muslims, or even the non-religious. We will trace the role religious faith plays in the various forms of the resistance over the nearly 400 years of the African American pilgrimage for equal rights.

**HIS 681. American Denominationalism. (3 h)**

A study of the development of denominationalism in America with particular attention to specific faith communities and the shape of religious organizations for the future.

**HIS 682. A History of the Baptists. (3 h)**

A study of Baptist history with particular attention to Baptists in the United States and the diversity of Baptist ways of belief and practice.

**HIS 683. Anglican Theology and Historical Roots. (3 h)**

This course will explore the core tenants of Anglican theology as they have developed historically. The class will begin with the work of Richard Hooker and theological reform of the Reformation. The next section will examine the development of Anglican theology in England and the United States with particular attention to social theology.

**HIS 693. African-American Religious Traditions. (3 h)**

A history of religious movements, communities, and individuals within African-American traditions.

**HIS 731. Mysticism and the Church. (3 h)**

A historical study of the nature of mysticism in varied Christian expressions.

**HIS 735. Lit Classics World Religions. (3 h)**

This course examines great works of literature from the world’s religious traditions including Judaism, Christianity, Islam, Hinduism, and Buddhism. While the basic teachings of selected religions are introduced for students with little or no background in the subject, the focus of this class remains on scriptural and literary texts that offer classic theological perspectives on the human condition. These are beautiful and profound writings, ranging from the tragic to the sublime, that challenge readers with perennial questions of religious significance. Our subjects and readings may encompass philosophical discourses, prophetic oracles, lyric and mystical poetry, lamentation and tragic narrative, erotic imagery, and apocalyptic visions of cosmic destruction. Readings include the Gilgamesh Epic, biblical texts, the Qur’an, Sufi poetry, Upanishads, the Bhagavad Gita, the Dhammapada, and Zen sutras.

**HIS 761. Rabbinic Judaism. (3 h)**

This course discusses the origins, development, and systems of rabbinic Judaism from circa first century CE to the early Middle Ages, including introduction to classic texts and genres such as Mishnah, Talmud, midrash, early ethical literature, and codes of Jewish law.

**HIS 762. Contemporary Judaism. (3 h)**

A study of the structure of modern Jewish worship, religious living, and thought; particular consideration to the impact of the Shoah, modern Israel, feminism, and interreligious relations.

**HIS 771. Religious Experience in America. (3 h)**

An examination of the nature of conversion, mysticism, and other forms of religious experience in American religious life.

**HIS 790. Topics. (1-4 h)**

Courses in history can be developed and offered on a one-time basis using this designation.

**HIS 790A. Tpcs Course in Historical Stud. (1-3 h)****HIS 790B. Tpcs Course in Historical Stud. (1-3 h)****HIS 790C. Tpcs Course in Historical Stud. (1-3 h)**

## Independent Study (IDS)

**IDS 791. Independent Study I. (1-3 h)**

A student may request to take an independent study (IDS) course with a faculty member. The following rules apply: (1) An independent study will count only as a general elective course, not as a required course or a required area elective. (2) A student may take no more than 6 hours of independent studies in the MDiv program. (3) A student must have a GPA of at least 3.0 in order to register for an independent study. (4) A student must be in their fourth, fifth, or sixth semesters of M.Div. study to register for an independent study. (5) A request for the study must be made in writing by the student to the faculty member. (6) The faculty member must be convinced that special circumstances warrant the request. (7) The terms for an independent study must be put in writing and agreed to by the student and the faculty member. (8) No faculty member is obligated to offer independent studies. (9) Credit varies from one to three hours.

**IDS 792. Independent Study II. (1-3 h)**

See description for IDS 791. Offered spring semester.

**IDS 793. Independent Study III. (1-3 h)**

See description for IDS 791. Offered summer session, first semester.

**IDS 794. Independent Study IV. (1-3 h)**

See description for IDS 791. Offered summer session, second semester.

## Ministerial Studies (MIN)

**MIN 501. Art of Ministry I: Introduction to the Life and Work of Ministry. (2 h)**

An introduction to vocational formation for religious leadership.

**MIN 501L. Art of Ministry I-Small Group. (0 h)**

A core aspect of Art of Ministry is the opportunity for formative engagement and intentional reflection with peers regarding the life and work of ministry in various settings. Art of Ministry 501 engages small group learning and reflection to facilitate this growth and development with peers and small group mentors who are serving in community ministry.

**MIN 501S. Art of Ministry Small Group. (0 h)****MIN 512. Healthy Boundaries: Ministry, Ethics, and Leadership. (1 h)**

This course explores relationships between ministry, professional ethics, and pastoral leadership. Topics include clergy confidentiality, healthy clergy relationships, clergy self-care, pastoral issues related to business and finances, healthy use of social media in ministry, and practices for ensuring the safety of children and youth in ministerial programs. This course is based on a similar course developed by the Faith Trust Institute and is designed to meet denominational healthy boundaries training requirements. The professor has been certified as a healthy boundaries trainer through the Faith Trust Institute. This course is equivalent to Healthy Boundaries 101 and 201 offered by the Faith Trust Institute.

**MIN 513. Introduction to Congregational Budgeting and Finance. (1 h)**

This course is designed to provide ministry leaders a basic understanding of business and financial concepts in a congregational (and nonprofit) context. The overall goal is to help students learn how to use financial information in decision-making and leadership roles. The course will be praxis-oriented, aimed at helping learners develop basic skills in the areas of budgeting and related financial processes. The course will also provide an overview of effective fundraising and giving philosophies and practices.

**MIN 515. Transforming Leadership? Exploring Practical Theologies for 21st Century Ministry. (3 h)**

How does religious leadership transform communities? What strategies are effective in today's ministering contexts? This course explores models of practical theological reflection and methods of reflective professional practice as frameworks for religious leadership in a variety of contexts. Students will develop reflective strategies to place into conversation their personal vocational narratives, institutional and cultural contexts, biblical leadership tropes, and elements of what they are learning across theological disciplines.

**MIN 520. The Church in Contemporary Cultures. (1-3 h)**

A study of social factors that pose challenges to church life. Students consider the everyday lives of churchgoers and how faith plays a role in their responses to social, cultural, and political issues. Attention is also given to the ways in which communities of faith create religious culture as a means of strength, cohesion, and survival.

**MIN 530. Introduction to Christian Worship and Liturgy. (3 h)**

A study of the role of symbol and ritual, sacred times and festivals, sacred places and persons, and expressions of art and music.

**MIN 531. Children in Worship. (1 h)**

How can worship leaders effectively encourage the participation of children in Sunday worship? What is the role of worship in shaping children's spiritual life? What is the purpose of the "children's sermon" or "children's worship"? This one-credit course will explore these and other topics related to the presence of children in worship.

**MIN 533. Worship Practicum. (1 h)**

In this course, students will learn to create, plan, and lead weekly worship services for the School of Divinity community. In addition to learning different worship and liturgical traditions, students will reflect theologically on the meaning of worship elements, thereby giving them tools to plan worship services with attention and intention.

**MIN 535. The Samuel DeWitt Proctor Institute for Child Advocacy. (3 h)**

Seminar with clergy, seminarians, Christian educators, young adult leaders and other faith-based advocates for children for spiritual renewal, networking, movement-building workshops, and continuing education about urgent needs of children at the intersection of race and poverty.



**MIN 540. Specialized Internships. (0.5-3 h)**

Students may elect to do summer, semester, or academic year internships away from the Divinity School's geographic region. Course credit may be given for a specialized internship if the student submits a proposal and the internship is approved by the faculty. If approved, a faculty member serves as an adviser to the student, and a reflection paper, along with other related readings, is required.

**MIN 541. Summer Internship Reflection. (1 h)**

The School of Divinity makes funding available to students who wish to serve in full-time internship placements during the summer recess. Summer interns serve in a ministry setting for six to eight weeks for a minimum of 200 hours. The School of Divinity invites competitive applications for summer internship funding in early January and makes stipend offers by mid-March. Some ministry settings partner with the School of Divinity to provide part of the funding for summer internship placements. The format of full-time summer internship placements is similar to the part-time format of Art of Ministry II. At the beginning of the summer, students work with their site mentors to create learning/ministering covenants that spell out the student's roles, responsibilities, and learning goals. Summer interns meet weekly with their mentors to reflect on the student's internship work. At the end of the summer, students and mentors write assessments of the internship placement. Summer interns enroll in a one-credit course, meeting one day in May and another in August. The summer internship course creates opportunities for students to reflect on their summer internship work and structures that hold students accountable to their commitments to their internship settings. Students work in peer groups to reflect on their summer internship work.

**MIN 542A. Internship. (0 h)**

A part-time ministry internship placement (2 semesters at 100 hours per semester, for a total of 200 hours) taken in either the second or third year of program.

**MIN 542B. Internship. (0 h)****MIN 543. Internship. (0 h)**

A full-time ministry internship placement (200 total hours, to be completed in 5-7 weeks of full-time internship work) in the summer following either the first or second year of the program.

**MIN 545. PRIME Internship Reflection Seminar. (2 h)**

This course is a general elective used for the fulfillment of the summer internship reflection requirement. Pass/fail only. P-POI.

**MIN 551. Homiletics and Worship. (3 h)**

This course provides instruction in the preparation and delivery of sermons in the context of worship. Attention is given to the history of Christian preaching, to techniques of effective biblical interpretation for preaching, and to the development of a theology of proclamation. P-BIB 521 or 541.

**MIN 554. Introduction to Christian Education and Spiritual Formation in the Local Church. (3 h)**

This course focuses on the educational and spiritual needs of the membership of local congregations. The organization of educational programs is discussed as well as development and evaluation of curriculum. Leadership recruitment and development are addressed and consideration is given to the importance of spiritual formation as the heart of the educational program.

**MIN 561. Faith, Food, Health, and Community. (3 h)**

This course introduces students to the Religious Leadership in Food, Health, and Ecology concentration. The concentration develops leadership skills applicable to either congregational or nonprofit ministries. Interdisciplinary conceptual lenses and methods introduce participants to food systems and health systems as overlapping "loci" for understanding brokenness and cultivating shalom in community. Students interact with community leaders, local data, and faith-based initiatives working at these intersections.

**MIN 564. Podcasts, Livestreams, and Vlogs: Proclamation in the Digital Age. (3 h)**

This course investigates the many ways religious leaders are increasingly using digital media to proclaim the Gospel thus engaging with people who are not in the same space. As social media is now part of the daily lives of many people around the globe, this course explores how religious leaders engage and make meaning of their encounters on Facebook, Instagram, SnapChat, Twitter and other social and digital media formats. Specifically, the course examines how preaching is re-imagined through digital pulpits i.e., podcasts, livestreams and vlogs.

**MIN 565. Watershed Discipleship. (3 h)**

This course will introduce and explore a new (and ancient) paradigm for ecological theology and practice that will enable and equip participants to understand and respond to the greatest crisis our civilization has ever faced - the global degradation of our planet and its waters.

**MIN 570. Exploring Interfaith Practice. (3 h)**

This course will provide foundational knowledge of interfaith engagement with focus on forms of leadership. The course will consist of 4 units examining: 1) interfaith history and identifying interfaith movements; 2) principles of interfaith leadership; 3) case studies in interfaith leadership; 4) special topics in interfaith practice and leadership. Students will be encouraged to identify their own leadership styles and to build relationships with effective interfaith leaders within their own communities.

**MIN 592. Appalachia. (3 h)**

Studies in rural church and community ministry through Appalachian Ministries Educational Resources Center (AMERC), Berea, Kentucky. Particular attention is given to traditional communities amid the changing face of the Appalachian region.

**MIN 599. Multicultural Contexts for Ministry. (1-3 h)**

Multicultural contexts for ministry courses focus on specific ministries in diverse cultural and regional contexts. Each course includes a required travel component. Courses vary each year.

**MIN 600. Korea: Conflicts, Reconciliation, and Peacemaking. (3 h)**

A faculty-led travel course which confronts the problem of conflict resolution and peace-making in a country marred by Japanese colonial rule and torn by the Korean war. During Japanese colonial rule (1910-1945), Korea was subject to various kinds of brutal exploitation and persecution by Japanese imperialism, and its liberation was soon followed by a war (1950-1953) that would become a symbol of the Cold War and that still threatens the peace and security of the world. Focusing on some recent events in Korean history, this course will critically examine common sources of national and international conflicts, forms of dehumanization and oppression, processes of political regeneration, and the role of the church in the work of reconciliation and peace-making. We will explore various approaches to conflict resolution and peacebuilding through readings, case studies, and visiting relevant locations. In particular, we will consider theological grounds for forgiveness and peacemaking.

**MIN 601A. Art of Ministry II: Shared Wisdom: Reflective Practice in Ministry. (3 h)**

Art of Ministry II: Shared Wisdom: Reflective Practice in Ministry (C)  
Academic year internship that includes experiential learning, mentoring, peer group reflection, and classroom learning.

**MIN 601B. Art of Ministry II: Shared Wisdom: reflective Practice in Ministry. (3 h)**

Art of Ministry II: Shared Wisdom: Reflective Practice in Ministry (C)  
Academic year internship that includes experiential learning, mentoring, peer group reflection, and classroom learning.

**MIN 602A. Internship Reflection Seminar. (1.5 h)**

Internship Reflection Seminar engages second-year students in theological reflection through a year-long internship. The 3-hour, two-semester course (1.5 credits in each semester) includes plenary sessions that focus on skills development. At the center of the internship learning process is a structured relationship between each student and an on-site mentor. Students also learn how to reflect theologically about ministry and leadership through work with peer groups consisting of other student interns.

**MIN 602B. Internship Reflection Seminar. (1.5 h)**

Internship Reflection Seminar engages second-year students in theological reflection through a year-long internship. The 3-hour, two-semester course (1.5 credits in each semester) includes plenary sessions that focus on skills development. At the center of the internship learning process is a structured relationship between each student and an on-site mentor. Students also learn how to reflect theologically about ministry and leadership through work with peer groups consisting of other student interns.

**MIN 602C. Secondary Internship Reflection Seminar. (1.5 h)**

Students choosing to complete their secondary internship requirement during the fall and spring terms will complete one (1.5 credit) reflection seminar in the fall term. This course is cross-listed with 602A and will include a cohort of all students pursuing a fall internship engaged in theological reflection on ministry and leadership.

**MIN 612. Angels and Demons. (3 h)**

An exploration of angelic and demonic figures in the biblical text and in the history of interpretation in Jewish, Christian, and Muslim traditions. This course will also consider the portrayal of angels (some fallen) in contemporary fiction, television, and film.

**MIN 627. Proclaiming Judges: Tales of Sex and Violence. (3 h)**

Many Hebrew Bible texts contain disturbing images and stories related to sex, gender, and violence. Examples include Deborah and Jael, Jephthah's daughter, the Samson narrative, the rape of the unnamed Levite's concubine, and Ruth's apparent seduction of Boaz. This course will examine in detail these stories and others as they appear in the books of Judges and Ruth. As a MIN offering in the Proclamation area, the course will move from exegesis and ancient literature to look at how Christian communities have dealt with, and should continue to deal with, these difficult and impious texts in preaching, liturgy, and religious education. The course will include analysis of how these texts have been presented in modern film, books, and music and in some Christian children's resources, such as Veggie Tales.

**MIN 628. Financial Leadership in Ministry. (1.5 h)**

This course will explore how pastoral leaders approach personal and church finances and how their approach relates to their theology. Money is a medium of social exchange that creates hope, anxiety, blessing, conflict, opportunity and temptation. Students will examine the values related to money in the communities that have shaped them; think through their beliefs about money biblically and theologically; evaluate their current money practices in light of their faith; and develop a money-related practice to pursue throughout the course. How will you organize your own finances and provide leadership within your church in addressing financial matters? In this course students will seek to answer questions like this by considering biblical and theological resources for developing a theology of finance along with developing the tools needed for personal financial planning and the management of finances in a church setting.

**MIN 629. Public Leadership in Nonprofit Organizations: Legal and Theological Perspectives. (3 h)**

The goal of this course is twofold: (1) to consider how legal and theological inquiry shed light on public leadership roles that theologically and legally trained professionals inhabit; and (2) to prepare students to be competent leaders of nonprofit organizations, considering issues like: the legal structure and status of a nonprofit organization (a 501(c)(3)), the process of casting a mission and vision in nonprofit organizations; fund-raising; developing and engaging a leadership board; cultivating a volunteer staff; representing an organization as a public leader; etc.

**MIN 630. Christian Ministry and Public Leadership in America. (3 h)**

This course explores the role of minister as public leader. It attends to four areas of concern: (1) what public leadership is, and what it means in the context of Christian ministry; (2) how U.S.-Americans make morally relevant meaning of their social and political life together, and how these meanings are relevant to ministry leadership in broader publics; (3) what models of public leadership are available to ministry leaders, and what it means to lead well through them, and (4) how ministry leaders reflect theologically on their role as public leaders. To focus our conversation around these matters, the course will examine the theme of urban poverty throughout.

**MIN 631. The Ministry of Pastoral Care. (3 h)**

A study of the church's ministry of caring for persons throughout the life cycle which is grounded in theological understandings of the human condition, the spiritual journey, and the nature of ministry.

**MIN 633. Introduction to Pastoral Counseling. (3 h)**

An introduction to theories and methods of pastoral counseling, including the nature of pastoral identity and essential skills for effective counseling.

**MIN 636A. Clinical Pastoral Education I. (3 h)**

A clinical pastoral education unit focused on multi-cultural concerns in hospital chaplaincy and pastoral care. Offered through the Wake Forest University Baptist Medical Center. Open to second and third year students only.

**MIN 636B. Clinical Pastoral Education II. (2 h)**

A clinical pastoral education unit focused on multi-cultural concerns in hospital chaplaincy and pastoral care. Offered through the Wake Forest University Baptist Medical Center. Open to second and third year students only.

**MIN 638. Trauma and Resilience in the Care of Individuals and Groups. (3 h)**

A study of theories and practices related to individual and community traumas, trauma-informed care, and the human capacities for resilience and growth. The course will utilize sources from multiple disciplinary lenses and practices, including neuroscience, psychology, practical theology, and restorative justice.

**MIN 641. Congregational Leadership and Presbyterian Polity. (1-3 h)**

A study of the polity of the Presbyterian Church (USA). Attention is given to issues of congregational leadership as they are affected by Presbyterian polity structures.

**MIN 643. Homiletics, Ethics and Community Leadership. (3 h)**

This course focuses on the relationship between leadership ethics, and preaching in communities of faith. Special attention is given to the roles of gender, race, ethnicity and class in homiletical practice and theology. The course also considers the role of pastoral leadership in guiding communities toward ethical decision-making that can result in justice and liberation. Also listed as Theological Studies 643.

**MIN 644. Preaching, Worship, and the Care of Souls: Funerals, Weddings, and Other Pastoral Rites. (3 h)**

A study of pastoral rites. This course is a seminar and practicum through which students learn how to design and lead pastoral rites, with an emphasis on funerals and weddings. Each student is required to preach for the class a funeral sermon and a wedding sermon.

**MIN 645. Preaching in the Tradition of the African American Church. (3 h)**

This course invites students to explore the heart and soul of the African American preaching traditions with attention to the historical emergence of the Black Church, its dual function as a religious and socio-political institution, and the theologies, practices and histories that continually give shape to its preaching traditions. The course is designed to enhance students' ability to create theologically grounded sermons that are intelligible, accessible and transformational by exploring the Black Preaching tradition's contributions to homiletical theory and practice. Course emphases include the theological dimensions of preaching, biblical interpretation, sermon preparation and delivery, preaching as formative practice, and preaching as a communal communicative act.

**MIN 647. Episcopal Studies I: Sacramental Theology and Liturgies. (3 h)**

In this course students explore the heritage and current theology of the Sacraments and Worship of the Church. The course is a prerequisite for Episcopal students preparing for General Ordination Exams.

**MIN 648. History and Polity of the Episcopal Church. (3 h)**

This course covers the beginning, formation, and subsequent history of The Episcopal Church in the USA. The class will explore key period as well as significant figures of this history. Particular attention will be paid to the parts of history often overlooked: the role of women leaders before women's ordination; the contribution of African American leaders as well as the key moments in the 21st Century with the ordination of the first openly gay bishop in the Anglican Communion.

**MIN 652. Contextual Homiletics. (3 h)**

This course analyzes the impact of various social identities upon the preparation, delivery, and reception of sermons. The social identities examined include, but are not limited to, race and ethnicity, gender, sexual identity, class status, and geography. Students prepare, preach, and receive critiques on at least two sermons in this course. P-MIN 551.

**MIN 654. Preaching and Worship in Sacred Time. (1-3 h)**

This course analyzes the biblical, theological, and pastoral nature of the seasons and special moments of the church year. In addition to instruction on sermon preparation for the major liturgical moments (e.g., Advent, Christmas, Lent, Easter, Pentecost), attention is given to baptism, communion, weddings, and funerals.

**MIN 655. Preaching from the Old Testament. (3 h)**

This course exposes students to the vast possibilities for proclamation afforded by the Old Testament. Essentially, this course is a preaching practicum. Students are required to prepare and deliver sermons in class from the Torah, the prophetic books and writings of the Old Testament. Attention is also given to the theology of the Old Testament and to the relationship between the Old and New Testaments.

**MIN 658. Womanist Proclamation. (3 h)**

This course explores womanist proclamation, a practice of truth telling, wisdom bearing and justice seeking that is identified via the radical inclusion of marginalized voices, as an embodied rhetorical and theological act of resistance. Through the carving out of sacred spaces, the course will examine how Black women and girls use speech (performed word) and movement (embodied word) to intentionally disrupt popular terrains where Black bodies are literally and metaphorically disembodied. Ultimately, the course theorizes that womanist proclamation is a means through which Black women's bodies generate and transmit spiritual power from traditional and alternative pulpits and sources to unfetter themselves and their communities from the vestiges of interlaced oppressive systems.

**MIN 660. Sacraments and Ordinances: History, Theologies, and Practices. (3 h)**

A place-based exploration of the history, theologies, and practices of baptism and the Lords' Supper in diverse Christian contexts.

**MIN 661. Community-based Research: Tools for Addressing Health Inequities in Community. (1 h)**

In the Americas (North, Central and South America), there has been a rich experience in both the social and health sciences in trying to understand the role of community empowerment and social participation as a way to contribute to the reduction of social inequities. In this two-day workshop, co-led by facilitators from the US and Nicaragua, students will learn the principles of community empowerment, tools for fostering community empowerment, and the use of a community based participatory research model (CBPR) as a framework to approaching current social or health problems. Students should bring a current social or health problem they are either working on or hope to work on during the workshop. Participants will also learn principles of circles work and conflict transformation for working in situations of high conflict.

**MIN 662. Liturgical Books. (3 h)**

A study of contemporary worship books of various denominations, with attention to Baptism and the Eucharist, burial rites, the Psalter, hymnals, and lectionaries.

**MIN 663. Ritual & Congregational Life. (3 h)**

An examination of the history, theology, and practice of the sacraments and other pastoral rites in congregational life. Attention is given to the meaning and function of ritual in a contemporary context. The course is taught from a Reformed perspective.

**MIN 668. The Prophetic Pulpit: Preacher as Public Intellectual. (3 h)**

The purpose of this course is to introduce students to the intellectual tradition of preaching as both spiritual witness and prophetic resistance in the United States. The ultimate aim is to foster intellectual dispositions, ethical orientations, and personal motivations which enable us to raise voices of dissent against any status quo and/or ideological options offered by popular society. We will thus seek to fulfill the three following interrelated tasks: 1.) Clarify the role of the public intellectual within a prophetic tradition, 2.) Examine historical examples of those who bore witness to horrors otherwise denied and their methods of public address, and 3.) Encourage students to craft creative sermons, write clear, concise, and compelling editorials, and engage pressing social issues in ways that are ethically based, intellectually sound, and emotionally animating.

**MIN 671. Contemporary Spiritual Writers. (3 h)**

A study of the principles of the spiritual life as presented in the works of selected contemporary writers.

**MIN 681. American Denominationalism. (3 h)**

A study of the development of denominationalism in America with particular attention to specific faith communities and the shape of religious organizations for the future. Also listed as HIS 681.

**MIN 682. A History of the Baptists. (3 h)**

A study of Baptist history with particular attention to Baptists in the U.S. and the diversity of Baptist ways of belief and practice. Also listed as HIS 682.

**MIN 693. History and Polity of the Christian Church, Disciples of Christ. (2 h)**

The course will explore the history, polity, theological foundation, and characteristic beliefs of the Christian Church, Disciples of Christ.

**MIN 695. United Church of Christ Polity and History. (2 h)****MIN 705. Third Year Capstone. (1.5 h)**

The third-year capstone course will have two interrelated components: (1) A capstone reflection component, in which students develop an electronic portfolio to facilitate reflection on their cumulative learning in light of School of Divinity curricular standards (in the areas of disciplinary knowledge, vocational reflection, and skill development for leadership). (2) A professional development component, in which students will continue vocational reflection and ready themselves for employment searches. The capstone course will be co-developed and co-facilitated by the director of the Art of Ministry program and the director of the Leadership Development program. The third-year seminar is a pass/fail course.

**MIN 706. Directed Reflection in Applied Sustainability. (1 h)**

This one credit course is taken concurrently with the two credit practicum in Applied Sustainability. With a divinity faculty mentor, students engage in directed theological reflection on practicum experience.

**MIN 710. Topics in Psychology of Religion. (1 h)**

(1h course required for MDiv/MA in Counseling joint degree students)  
A consideration of "classic" and contemporary texts and research in the psychology of religion pertinent to theory and practice of pastoral counseling.

**MIN 711. Topics in Spiritual Development. (1 h)**

This seminar looks at "classic" and contemporary texts and research in human psychological and spiritual development (and critical responses to same) pertinent to theory and practice of pastoral counseling. This class would examine psychoanalytic and cognitive-structural approaches to human development and critical responses.

**MIN 712. Topics in Pastoral Theology. (1 h)**

(1h course required for MDiv/MA in Counseling joint degree students)  
A consideration of selected issues and contemporary perspectives in pastoral theology, with a focus on theological anthropology foundational to integrative reflective practice of pastoral care and counseling.

**MIN 771. Classics of Christian Devotion. (3 h)**

A study of the principles of the spiritual life presented in the enduring classics of devotion.

**MIN 790. Topics Courses. (1-3 h)**

Courses in ministerial studies can be developed and offered on a one-time basis using this designation.

**MIN 790A. Topics in Ministerial Studies. (1-3 h)****MIN 790B. Topics in Ministerial Studies. (1-3 h)****MIN 790C. Topics in Ministerial Studies. (1-3 h)****MIN 790D. Topics in Ministerial Studies. (1-3 h)****MIN 790E. Topics in Ministerial Studies. (1-3 h)****MIN 790F. Topics in Ministerial Studies. (1-3 h)****MIN 790G. Topics in Ministerial Studies. (1-3 h)****MIN 790H. Topics in Ministerial Studies. (1-3 h)**

## Spirituality (SPI)

**SPI 530. Liturgical Writing as Spiritual, Theological, and Prophetic Act. (1-3 h)**

Divinity students are often called upon to write or speak extemporaneously various elements for worship, such as prayers, litanies, confessions, invocations, and intercessions. This course provides students with diverse resources for worship leadership. The course encourages students to locate their own prayer styles, theologies and rhythms within the shared narratives and prayer experiences of historic and contemporary worshiping communities. The course also challenges students to explore and name what theologies they are embodying through their choices of language, images, styles, and forms in public prayers. The course is part worship literature review and reflection and part workshop. Students will learn about elements of worship and explore historic and contemporary examples. Students will also share each week in a writers' workshop format their own liturgical writing samples. A primary aim of the course is to invite students to explore relationships between their own unique voices and theologies and their roles as public prophets, theologians, and spiritual leaders.

**SPI 571. Introduction to Christian Spiritualities and the Religious Leader's Spiritual Life. (3 h)**

What is "spirituality"? In this course, we will listen in on two thousand years of responses to this question, examine a diversity of mediums through which Christians have sought to encounter God, and consider the wide variety of spiritual practices Christians have embodied in their quests to experience and respond to God's presence. Students will be invited to reflect on their own responses to the question "what is spirituality?" by writing spiritual autobiographies and sharing portions of them with others in the course. Students will also explore contemporary spiritual and contemplative practices.



**SPI 610. Spirituality & Discernment. (1-3 h)**

This course introduces students to some theological and spiritual foundations of discernment as it relates to individuals, groups, and systems. Students will learn processes for discernment as a spiritual practice using the Examen, the Clearness Committee, and the Social Discernment Cycle. They will practice individual discernment for themselves, group discernment with others in the class, and discernment of systems with an organization or institution of which they are a part.

**SPI 616. Faith and Film. (1-3 h)**

This class focuses on the use of film in personal and communal spiritual growth. Diverse films are viewed in class and each film is discussed from a spiritual perspective. Domestic and foreign films are viewed, as well as documentaries.

**SPI 623. Music and the Church. (3 h)**

This course is offered by the Music Department for Music and Divinity School Students. The course looks at the history of church music and practices of the use of church music in the contemporary church.

**SPI 669. Modern Spiritual Writing. (3 h)**

When St. Augustine penned his Confessions, he began a genre of Christian writing that has continued to this day. Part literature course, part writer's workshop, this course will introduce students to examples of literary nonfiction whose subject is faith. We will study narrative structure, voice, character development, scene, and dialogue—all tools of the writer's craft—and discuss how those tools can be employed to create compelling stories of religious experience. Students will workshop their own essays, and will also be introduced to a variety of writers (Christian and otherwise) whose modern spiritual narratives form part of our current cultural dialogue.

**SPI 671. Contemporary Spiritual Writers. (3 h)**

A study of the principles of the spiritual life as presented in the works of selected contemporary writers.

**SPI 672. Praying the Scriptures. (3 h)**

Reading the Bible as the prayer book of the church.

**SPI 771. Classics of Christian Devotion. (3 h)**

A study of the principles of the spiritual life presented in the enduring classics of devotion.

**SPI 773. Worship as Spiritual Practice. (3 h)**

A study of how worship shapes spirituality. Students explore spirituality, broadly defined, along with how congregational worship is a form of spiritual practice.

**SPI 790. Topics Courses. (1-3 h)**

Examples of one hour topic courses include: Spiritual Development in Contemplative Prayer; Pentecostal Spirituality for the Whole Church; Quaker Spirituality; African American Spirituality: Representative Motifs.

**SPI 790A. Topics in Spirituality. (1-3 h)**

Courses in Spirituality and the Arts can be developed and offered on a one-time basis using this designation.

**SPI 790B. Topics in Spirituality. (1-3 h)****SPI 790C. Topics in Spirituality. (1-3 h)****SPI 790D. Topics in Spirituality. (1-3 h)****SPI 790E. Topics in Spirituality. (1-3 h)****SPI 790F. Topics in Spirituality. (1-3 h)**

## Theological Studies (THS)

**THS 501. Christian Theology. (3 h)**

A study of central themes and systematic connections in Christian theology from a variety of perspectives.

**THS 520. Comparative Mysticism: Christianity and Islam. (3 h)**

This course will examine the mystical traditions of Christianity and Islam on their own terms and in relationship with each other. Through comparison, we will draw out questions and points of emphasis that will deepen our understanding of the two traditions. We will also examine the phenomenon of mysticism and pursue some of the most intractable philosophical and historical questions it produces: What is mysticism? How does it relate to normative religious practice? What will be its role in the future?

**THS 521. Foundations of Christian Ethics. (3 h)**

This course is designed to show the relevance of Christian ethics to the contemporary world by way of exploring its distinct approaches to ethical reflection. To this end, we will study a number of classical and contemporary approaches in Christian ethics and their responses to contemporary moral challenges.

**THS 522. History of Theological Ethics. (3 h)**

This course provides a historical overview of the development of Christian morality from the Hellenistic period through the early 20th century. Throughout the course we will explore (1) major philosophical and theological ideas that helped shape the development of Christian morals and (2) how some of these ideas remain relevant to our contemporary ethical reflection. The purpose of this course is to help students appreciate the ways in which theological concepts and ideas can become resources for navigating today's moral challenges and dilemmas.

**THS 530. Readings in Liturgical Theology: Denominations & Worship. (1 h)**

This course explores how worship in various Christian traditions shapes and is shaped by those traditions' theologies. The focus is ecumenical, with texts selected from an array of Christian traditions and denominations.

**THS 611. The Providence of God. (3 h)**

A study of alternative models of God's relationship to and activity in the world, examining evil and suffering, miracle and prayer, tragedy and hope.

**THS 612. Theological Anthropology. (3 h)**

Perspectives on the origin, nature, and destiny of humanity in contemporary theological discussion.

**THS 616. Faith and Film. (1-3 h)**

This course relates a particular form of the arts to spiritual development. The class examines four diverse films and how they inform personal and group spiritual growth.

**THS 618. Feminist, Womanist, Murjerista Theologies. (3 h)**

A study of theology utilizing the methods and diverse voices of feminist theology.

**THS 619. Readings in Queer Theology. (1 h)**

This seminar-style reading course surveys classic and new works in queer theology, an approach to Christian thought that questions dominant constructions of gender identity and sexuality.

**THS 620. Classics of Modern Theological Ethics: Kierkegaard, Bonhoeffer, Barth, and Tillich. (1-3 h)**

This course is a study of classic texts in modern theological ethics. By closely reading the works of Kierkegaard, Barth, Bonhoeffer, and Tillich, we will examine unique features of their theological and ethical methods and the relevance of their thought to contemporary religious and moral life. The purpose of this course is not only to get familiar with some of the great Christian thinkers but also to gain insights of permanent importance that can help us live faithfully and morally in a rapidly changing world.

**THS 621. Christianity and Public Policy. (3 h)**

A study of biblical warrants, historical developments, and contemporary issues related to Christianity and public policy. A look at the literature, relationship to other theological disciplines and basic ethics is involved.

**THS 623. Religious Traditions and Human Rights. (3 h)**

A study of relationships and tensions between religious traditions and human rights, with illustrations from historical and contemporary issues and movements. Also listed as Religion 336.

**THS 624. Church & State in America. (3 h)**

This course examines the theology, history, sociology and politics leading to the unique relationship of Church and State in the United States. The course engages contemporary issues and conflicts in the Church-State field with special attention to current developments and media coverage of those events.

**THS 626. Contemporary Ethical Issues. (3 h)**

This course explores contemporary ethical issues that have wide social, political, and religious significance. The issues include health care, environment, immigration, dying, and criminal justice. In order to properly understand the issues, we will examine arguments of various kinds – philosophical, sociological, political, economic, and theological, as they are often heard in public discussion. In particular, we will pay close attention to the ways in which theological discourse may make contribution to moral reflection.

**THS 628. Postmodernism and Christian Ethics. (1-3 h)**

Postmodernism has become an important movement in contemporary theology and ethics. In this course we will explore several variants of postmodern ethics in order to critically evaluate their strengths and weaknesses. In particular, we will take a close look at the ways in which certain features of postmodern ethics are used by contemporary Christian thinkers.

**THS 629. Markets, Justice, & Christian Ethics. (3 h)**

This course examines a range of ethical issues related to market economies, including consumption, desire, freedom, capitalism, exchange, market regulation, globalization, corporate responsibility, and the relationship between economy and ecology.

**THS 630. The Problem of Evil. (3 h)**

Many people, including religious believers, experience the existence of evil in the world. But how can this experience be reconciled with a theistic belief that the world is under the loving care of God who is all-powerful, all-knowing, and perfectly good? Can the experience of evil be evidence for challenging the existence of God or the common assumptions about the divine being? How should we make sense of various religious beliefs in light of the experience of evil?

**THS 631. Black Theologies in the U.S.. (3 h)**

An examination of the historical and cultural development of Black Theology in the United States. The course includes engagement with multiple modes of the black theological tradition, including early Black Liberation Theology, critical theorists of theodicy, Womanist Theology, intersecting feminist theories, and "Third Wave" Womanists thought.

**THS 632. Feminist Theologies. (3 h)**

Feminist critiques and reconstructions of Christian theology.

**THS 637. African-American Theology. (3 h)****THS 642. Theology and Disability. (1-3 h)**

Considers how Christian theology can overcome traditional exclusions of persons with disabilities and how practitioners can make worship more inclusive and hospitable to all people. The seminar will explore these questions through contemporary theological work on disability, conversations with guest speakers, and field trips in the community.

**THS 643. Homiletics, Ethics and Community Leadership. (3 h)**

This course focuses on the relationship between leadership ethics, and preaching in communities of faith. Special attention is given to the roles of gender, race, ethnicity and class in homiletical practice and theology. The course also considers the role of pastoral leadership in guiding communities toward ethical decision-making that can result in justice and liberation. Also listed as Ministerial Studies 643.

**THS 645. Contemporary Eco-theologies: Reimagining and Reembodying God, Humanity, and Creation. (3 h)**

Over the past several decades, Christian theologians have responded to climate change, environmental racism, and ecological degradation by reimagining the nature of and relationship between God, humanity, and creation. This course examines how ecological concerns have been brought to bear on these topics in Christian theology. It begins by briefly considering how Christian theological traditions have been complicit in the anthropocentric, patriarchal, and racist ideologies that justify the economic and political mechanisms of ecological destruction. The course then turns to a series of constructive theological proposals that seek more just and sustainable ways of imagining and embodying the relationship between human beings and the non-human world. Throughout the semester and in their final projects, students will critically engage the viability of ecotheology as a resource for religious leadership in the realms of environmental justice and ecological well-being.

**THS 651. The Emerging Church In the Two-Thirds World. (3 h)**

An investigation of contemporary Christian communities in Africa, Asia, the Caribbean, and Latin America with special attention to theological, political, and economic activities.

**THS 670. Classics of Contemplative Theology. (3 h)**

Before the establishment of the great medieval universities, theology was an activity most often carried out in communal contexts of contemplation and asceticism. This course explores contemplative texts and practices as a mode of doing theology. Students will read spiritual classics from early Christianity through the early modern period and engage in experiential learning related to contemplative practices.

**THS 671. Christian Mission in Global Perspectives. (3 h)**

A study of the history of Christian mission including contemporary denominational, and ecumenical models for Christian presence, witness, and evangelism.

**THS 672. Interfaith in Winston-Salem. (1-3 h)**

This course seeks to prepare students to respond to issues related to religious diversity through experiential engagement in interfaith dialogue and critical reflection on these experiences. Also listed as MIN 672.

**THS 711. The Doctrine of God. (3 h)**

An exploration of the being and attributes of God in conjunction with the doctrine of the Trinity.

**THS 712. Contemporary Christology. (3 h)**

An examination of the definitive issues and basic alternatives for interpreting the person of Jesus Christ today, with specific attention to the formulation of the humanity and deity of Christ.

**THS 713. Theological Hermeneutics. (3 h)**

An investigation of current hermeneutical theory with specific attention to issues of theological method.

**THS 715. Latin American Liberation Theologies. (3 h)**

Latin American liberation theology is a body of religious thought that offers both a prophetic critique of unjust and violent systems of oppression and a hopeful vision of a more just and peaceful future. This course offers students a historical, contextual, and theological overview of Latin American liberation theology and asks students to enter into critical and constructive dialogue with the relevance of this body of thought for their own contemporary contexts.

**THS 720. Comparative Theology. (3 h)**

Comparative theology is an actively engaged response to the religious diversity characterizing our daily lives and global context. It is a way of seeing, reflecting, and learning within a pluralistic society that allows us to wrestle with our own commitments without abandoning our most deeply held beliefs. This course will introduce and analyze the purpose and methods of comparative theology as both academic discipline and spiritual journey. With an emphasis on Christianity and Islam, we will explore how two traditions can enter into fruitful conversation concerning a shared heritage and the fundamental, even existential, problems of humanity.

**THS 725. Comparative Mysticism. (3 h)**

This course will examine the mystical traditions of Christianity and Islam on their own terms and in relationship with each other. Through close reading and comparison of primary texts, we will draw out questions and points of emphasis that will deepen our understanding of the two traditions. We will also examine the phenomenon of mysticism and pursue some of the most intractable philosophical and historical questions it produces: What is mysticism? How does it relate to scripture and normative religious practice? Can it speak to concerns of social justice? What will be its role in the future? .

**THS 730. Life, Death, and Beyond: Theories of Human Nature. (3 h)**

A scientific, philosophical and theological exploration in search of answers to Big Questions: What is a human person? Is the person all material? Does the universe contain consciousness? Has science proven that religion is a mere illusion? Is life after death really possible?.

**THS 739. Neuroscience and Ethics. (3 h)**

A study of central philosophical and ethical issues at the intersection of neuroscience, ethics, and theology. The course explores neuroscientific accounts of human nature and morality as well as the ethical implications of neurotechnology.

**THS 771. The Church in Contemporary Cultures. (3 h)**

A study of historical antecedents, current structures, changing trends, and global relationships which impact the church now and toward the future.

**THS 790. Topics Courses. (1-3 h)**

Courses in theological studies can be developed and offered on a one-time basis using this designation.

**THS 790A. Topics in Theological Studies. (1-3 h)****THS 790B. Topics in Theological Studies. (1-3 h)****THS 790C. Topics in Theological Studies. (1-3 h)****THS 790D. Topics in Theological Studies. (1-3 h)**

# ACADEMIC PROGRAMS, POLICIES, AND PROCEDURES

- University Policies
- Academic Policies
- Student Academic Code of Conduct
- Non-Academic Student Code of Conduct
- Important Contacts

## Academic Policies

- Student Classification
- Class Attendance
- Grading System/Grade-Point Equivalent
- Academic Standing
- Independent Study
- Travel Policy
- Modern Language Policy
- Registration and Student Status Policies/Procedures
- Policies on Non-Residential Academic Credit
- Graduation Application Process
- Holds for Registration or Graduation
- Grievance Policy

## Student Classification

Classification of students by class standing is calculated in terms of hours completed, not in progress. In order for class standing to reflect transfer credit towards completed hours, a student must submit their final transcripts and/or CPE certificates by August 1 for the fall semester or January 4 for the spring semester.

- First Year** - completion of fewer than 26 hours towards the degree;
- Second Year** - completion of 26+ credit hours toward the degree;
- Third Year** - completion of 52+ credit hours toward the degree.

## Class Attendance

All students are required to attend classes regularly. Course syllabi specify class attendance expectations. Failure to attend classes regularly can result in academic penalties.

## Grading System/Grade-Point Equivalent

- Repetition of Courses
- Pass/Fail Option
- Incomplete Grades

## Grading System

The School of Divinity registrar maintains academic records of progress on all enrolled students. For all courses carrying graduate credit in the School of Divinity, there are three passing grades—A (excellent), B (commendable), and C (satisfactory)—and one failing grade, F (failure).

An A has the grade point value of 4.00 for each semester hour of credit involved, a B the value of 3.00 for each semester hour of credit involved, and C the value of 2.00 for each semester hour of credit involved. An F grade carries no credit. Required courses with a grade of F must be repeated. Pluses and minuses may be given at the discretion of the faculty member.

## School of Divinity Grade/Point Equivalent

Grade	Points	Definition
A	4.00	Excellent
A-	3.67	
B+	3.33	
B	3.00	
B-	2.67	Commendable
C+	2.33	
C	2.00	
C-	1.67	Satisfactory
F	.00	
F.	.00	
I	.00	Failing
NR	.00	Failing (irreplacable)
P	**	Incomplete
AUD	**	Not reported
WF	.00	Passing
WP	**	Audit
		Withdraw Failing
		Withdraw Passing

\*\*Grade not calculated in grade point average. Grades of F, I, or NR which are earned in the Pass/Fail mode do not affect the grade point average.

RPT in the GPA column indicates that the course is part of a repeat condition.

## Repetition of Courses

A student may repeat a School of Divinity course for which they have earned a C- or lower. In this case, all grades received will appear on the student's transcript, but the course may be counted only one time for credit. For purposes of determining the cumulative grade point average, a course will be considered as attempted only once, and the grade points assigned will reflect the highest grade received. These provisions do not apply to any course for which the student has received the grade of F as a consequence of an honor violation; in this case, both the F and the grade for the repeated course are calculated in the student's grade point average.

## Pass/Fail Option

The School of Divinity allows students to register for a limited number of general electives on a pass/fail basis rather than for a letter grade, with the permission of the instructor. Courses taken under the pass/fail option yield full credit when satisfactorily completed but, whether passed or not, they are not computed in the student's grade point average. Dates to change from grade to pass/fail mode, or from pass/fail to grade mode, are set by the University Registrar.

The pass/fail option is limited to general elective credits, including elective courses taken to satisfy the language requirement. In no case may a student use a course taken in the pass/fail mode to satisfy a required course (including required disciplinary electives and area



requirements). This limitation does not include required courses offered only in the pass/fail mode.

A student may count toward the M.Div. degree program no more than 6 hours taken in the pass/fail mode. (This number does not include courses that are offered only in the pass/fail mode.) No more than 7 hours may be taken on a pass/fail basis in any one semester.

Courses taken through the Graduate School cannot be taken in the pass/fail mode.

## Incomplete Grades

The grade of I (incomplete) may be assigned only when a student fails to complete the work of a course because of an emergency. In order to receive a grade of I, the student, in consultation with the professor of the course, must complete an Incomplete Grade Request Form and submit it to the Office of Academic Affairs. The student and professor are required to agree to a due date for the incomplete work and specify that due date on the Incomplete Grade Request Form. In all cases, if the work recorded as an I is not completed within 30 days after a student enters his or her next semester (excluding the summer session), the grade automatically becomes an F (failure). A graduate degree will not be awarded to a student who has an I grade on her or his record.

## Academic Standing

Understanding that theological education requires significant investment of time, energy, money, and other resources, the School of Divinity strives to empower students to complete the M.Div. program in a timely fashion. When students struggle to make satisfactory academic progress, the School implements strategies to help students achieve academic success. When those strategies fail, or it becomes clear that a student is not well positioned to complete the M.Div. degree, the School may elect to dismiss a student from the M.Div. program. Dismissal is unfortunate, but it always reflects a concern for the student's financial, personal, spiritual, and vocational well-being.

Students are in good academic standing when they earn satisfactory or higher grades in courses they undertake (without failing courses or failing to complete them), earn a minimum term GPA of 2.33 in any semester, maintain a minimum cumulative GPA of 2.5, and make significant progress towards the completion of the M.Div. degree. Students who fail to reach these benchmarks will be placed on academic review or academic probation in following semesters until these benchmarks are reached or until failure to reach these benchmarks results in dismissal from the M.Div. program.

- Academic Review
- Academic Probation
- Process for Initiating and Concluding Academic Review and Academic Probation Status

## Academic Review

Academic review is ordinarily enforced when students fail to make satisfactory progress towards the M.Div. degree in a given semester. Indicators of unsatisfactory progress may include, but are not limited to, any of the following: failure to reach a minimum term GPA of 2.33; failure to complete attempted courses with satisfactory grades (e.g., one or more courses with a failing, withdraw-failing, or incomplete grade); failure

to earn enough credit hours in a given semester. A student can be placed on academic review even if their cumulative GPA is 2.5 or higher.

Academic review status indicates that while a student may not be at risk for being dismissed from the M.Div. program, problems with academic progress in any semester merit the attention of the associate dean of academic affairs and a student's faculty adviser.

In consultation with the associate dean of academic affairs, a student on academic review will work with his or her faculty adviser to develop an academic plan, the goal of which will be to remedy problems that created the need for academic review status. Faculty advisers will monitor progress on the academic plan over the course of the semester.

## Academic Probation

Academic probation is enforced when students fail to earn a minimum 2.5 cumulative GPA or fail to make satisfactory progress in earning credit towards the M.Div. degree. Academic probation status supersedes academic review status.

Students who fail to earn a cumulative GPA of 2.5 or higher at the end of any semester will be placed on academic probation. At the discretion of the associate dean of academic affairs, full-time students may be placed on academic probation when they fail to complete the minimum number of credit hours required for fulltime academic standing over the course of an entire academic year, impeding timely progress towards graduation. Academic probation status indicates that students are at risk of being dismissed from the M.Div. program.

## Process for Initiating and Concluding Academic Review and Academic Probation Status

At the end of each semester, the associate dean of academic affairs will meet with the associate dean for admissions and student life, one representative of the faculty Curriculum and Academic Policy Committee, and a representative from the Student Financial Aid Office to review and make decisions about satisfactory academic progress cases.

Following that meeting, the associate dean of academic affairs will notify students and their academic advisers, via email and letter, of the students' academic review or probation status and the academic plan they will follow in the following semester.

Working with the student's academic adviser, the associate dean of academic affairs will arrange check-ins with the student at regular intervals in the following semester or semesters to ensure that the student is working towards academic success.

Students will ordinarily be released from academic review status when they have completed all applicable requirements as prescribed by their academic plan in the following semester. Students will ordinarily be released from probation status when they have completed all applicable requirements as prescribed in their academic plan in the following semesters and have achieved a minimum cumulative GPA of 2.5.

**The following are the continuation requirements for students enrolled in the Master of Divinity degree program:**

- Students are required to earn a 2.5 overall GPA in order to graduate from the Master of Divinity program.

- A student whose cumulative GPA falls below 2.5 will be placed on academic probation.
- A student whose term GPA is 2.33 or lower will be placed on academic review and may be placed on academic probation after consideration of their overall record.
- In order to come off of academic probation, a student must earn at a minimum a B (3.000) term average in each successive term until the minimum cumulative grade point average of 2.500 is reached.
- Students on academic probation who fail to earn a B (3.00) term average in the immediately succeeding semester may be advised to withdraw or dismissed from the program.
- Any student whose overall GPA falls below 1.67 at the end of any semester may be advised to withdraw or dismissed from the program.

#### Students on academic probation

- cannot receive an "incomplete" grade for any course;
- are advised to take manageable course loads, not to exceed 12 hours;
- are not allowed to take letter-grade courses on a pass/fail basis.

Students who are dismissed from the program for academic reasons may reapply but must wait a minimum of one year from the date of withdrawal to re-enroll in the program. The reapplication process will require at minimum an academic letter of reference and a statement from the student indicating how they intend to make progress toward successful completion of the degree. All requests for reapplication should be directed to the Office of Admissions. Students on academic probation should review the policy on satisfactory academic progress found at [http://www.wfu.edu/finaid/grad\\_policies.html](http://www.wfu.edu/finaid/grad_policies.html). Those who do not demonstrate satisfactory academic progress may be ineligible for financial aid.

## Independent Study

A student may request to take an independent study (IDS) course with a faculty member. Independent study courses provide students opportunities to complete advanced academic research or creative activity in a field of theological inquiry. It is suggested, but not required, that independent study courses follow upon the completion of required courses in the curricular areas most relevant to the proposed independent study project or theme. It is also suggested, but not required, that students design IDS courses using a syllabus template provided by the Office of Academic Affairs.

An Independent Study form must be filled out and signed by the faculty member and the associate dean of academic affairs.

The following rules apply for this option:

1. An independent study will count only as a general elective course, not as a required course or a required area elective.
2. A student may take no more than 6 hours of independent studies in the MDiv program.
3. A student must have a GPA of at least 3.0 in order to register for an independent study.
4. A student must be in their fourth, fifth, or sixth semesters of M.Div. study to register for an independent study;
5. A request for the study must be made in writing by the student to the faculty member.

6. The faculty member must be convinced that special circumstances warrant the request.
7. The terms for an independent study must be put in writing and agreed to by the student and the faculty member.
8. No faculty member is obligated to offer independent studies.
9. Credit varies from one to three hours.

## Travel Policy

All students are responsible for their own safety when traveling nationally or internationally, whether or not their travel is funded by the School of Divinity or given course credit by the School of Divinity. Before departure and in order to remain enrolled in any course associated with the travel, students traveling with the School of Divinity are required to do the following:

1. Pay all course fees by the deadline specified in the course syllabus;
2. Complete all travel forms and follow all procedures required by the University through the Center for Global Programs and Studies;
3. Attend all briefing sessions required or provided by the Center for Global Programs and Studies.

Students who fail to meet these requirements may be dropped from the course. Information about University travel procedures is available through the University Center for International Studies ([studyabroad.wfu.edu](http://studyabroad.wfu.edu) (<http://studyabroad.wfu.edu/>)).

Each year, the School of Divinity may make funds available for travel scholarships. Students are eligible for one travel scholarship, which is applied to the first Cross-Cultural Connections course taken. If additional travel grants become available, priority goes to students who need to fulfill the Cross-Cultural Connections requirement.

Regular drop policies apply to travel courses. However, the School of Divinity cannot guarantee any refund of program fees should a student withdraw from the course, though the school will try to provide refunds on a pro rata basis when possible.

## Modern Language Policy

Students in the Master of Divinity program may receive credit for no more than 6 hours for modern language study in the undergraduate college as elective credit toward the degree and/or toward the school's language requirement (see additional information about language requirement). Students who want to enroll in language courses in the College must complete the process for taking courses outside of the School of Divinity. Information about this process is available in the Office of Academic Affairs. Also, undergraduate students are generally given preference for 100-level courses. This means that School of Divinity students can enroll in courses where there are seats available and where the instructor of the course gives her or his permission.

## Registration and Student Status Policies/Procedures

- Dropping a Course
- Policy on Withdrawal (Termination of Studies)
- Policy on Leave of Absence

## Dropping a Course

During the Add/Drop period, a student may drop a course without penalty or notation on the transcript. The Add/Drop dates for full-term courses are set by the University Registrar. For all other courses, including weekend courses, the drop date will be 8 days before the course begins, or the date set by the Registrar, whichever is sooner.

After the Add/Drop period, a student may withdraw from a course with the approval of the associate dean of academic affairs, the professor, and the student's faculty adviser. If the student has completed passing work for the course, the grade of Withdraw Passing (WP) is assigned. Courses marked WP are not counted in determining the grade point average. If a student is failing the course, the grade is WF and counts as a 0 toward the grade point average.

Students may access Add/Drop and Withdrawal/Leave of Absence forms on the Academic Resources website and in the Office of Academic Affairs. Students are responsible for officially dropping or withdrawing from courses to be eligible for a refund of tuition. Nonpayment for classes for which a student is registered or non-attendance in a registered class does not release the student from financial obligation, and it does not result in withdrawal from a course.

## Policy on Withdrawal (Termination of Studies)

All enrolled divinity students who must withdraw from the University may do so by completing a withdrawal form and submitting the form to the Office of Academic Affairs. Ordinarily, a withdrawal signals the intent not to return to the University. Students who intend to return to the University should follow the process for Leave of Absence. Withdrawal/Leave of Absence forms are available in the Office of Academic Affairs.

While forms completed prior to the semester drop deadline will not result in academic penalties, meeting the deadline may not prevent negative implications for merit and need-based financial aid. Withdrawing from the University within the period allowed for dropping and adding courses may result in partial or total charges for the term and may alter scholarships, grants, and loan amounts, according to the published schedule. Students who borrow under federal loan programs are responsible for repaying loans granted based upon full-time enrollment. Students are strongly urged to discuss the financial implications of all withdrawals from the University with the financial aid office.

Withdrawing from courses after the last day to drop courses and before the last day of classes may result in academic penalties. If a student withdraws after the drop deadline and, in the judgment of the professor, is passing a course, a grade of WP will appear on the transcript and does not affect a student's grade point average. If in the judgment of the professor the student is failing a course, a WF will be granted and will appear on the transcript. The grade of WF does factor into a student's overall grade point average and as such may negatively affect academic standing. A course abandoned with insufficient reason for withdrawal is assigned the letter grade F. Students who drop all courses are considered withdrawn from the University. A student who has withdrawn from the School of Divinity and wishes to return within one academic year must reapply with the associate dean of admissions at least one month prior to the semester in which they wish to re-enroll.

## Policy on Leave of Absence

A Leave of Absence allows students enrolled in the Wake Forest University School of Divinity to interrupt their studies for a compelling reason, for example, a medical condition or a personal or family matter requiring absence from campus. A Leave of Absence is defined as a temporary separation from the School of Divinity, for up to one year from the start of the semester during which the Leave of Absence is requested. To be eligible for a Leave of Absence, students should ordinarily be in good academic standing. Students who intend to take a Leave of Absence must submit a Withdrawal/Leave of Absence form to the Office of Academic Affairs along with a letter detailing the request for the Leave of Absence. This letter must indicate all unsatisfied degree requirements for the student. If available, other supporting letters should be included in the request for a Leave of Absence.

Until students are notified by the Office of Academic Affairs that the leave has been approved, they remain registered and are expected to fulfill their responsibilities. A Leave of Absence will not be granted retroactively. The maximum time for a leave of absence is one year. A student requesting a Leave of Absence by the drop date for the semester, as established by the academic calendar, will not have a grade recorded for courses in progress. A student who requests a Leave of Absence after the drop deadline will be assigned a grade of withdraw-passing (WP) or withdraw-failing (WF) for each course in progress, which will appear on the transcript. The grade of WP does not affect a student's grade point average. The grade of WF does factor into a student's overall grade point average and as such may negatively affect academic standing. If applicable, tuition is refunded on a prorated basis, and the refund schedule is set by the Wake Forest University Board of Trustees.

A student on a Leave of Absence will have limited access to University facilities normally available to enrolled students. In order to facilitate communication between the student and the School of Divinity, access to the campus network will be continued during the leave, but will be deactivated if the student does not return. Library access will be continued during the period of leave, but it will be revoked if the student does not return. ID access to buildings will be deactivated during the period of leave.

Students who are granted a Leave of Absence must consult with their health insurance provider about the status of their policy while on leave. Students who have contracted for health insurance through the university should immediately contact the Student Health Insurance Coordinator. Health insurance is subject to federal and state laws and regulations. International students who are granted a Leave of Absence must notify either the Office of Global Studies. Visa status is subject to federal laws and regulations.

Students on an approved Leave of Absence are not eligible for federal financial aid, including Federal Direct Loans. In some cases, student loans may not be deferred for the entirety of a leave. Students should contact Student Financial Services for additional information. Students on Leave of Absence should submit a request to return to the senior associate dean at least one month prior to the first date of the semester or term in which a return is planned. This request may require a letter which addresses the suitability of the student's return. Students who have decided not to return from a leave of absence should inform the senior associate dean in writing. Students who fail to petition to return after a Leave of Absence will be withdrawn from the School of Divinity and need to apply for readmission in order to return.

The time spent during an approved leave or while withdrawn will not count in the maximum time allotted for the degree. Students who have withdrawn from the School of Divinity and who wish to re-enter after one academic year must reapply for admission by the application deadline. If a student is approved for readmission to the School of Divinity within an eight-year period, previous coursework may count towards the degree requirements at the discretion of the associate dean of academic affairs. If the student re-enters the School of Divinity after an eight-year period, previous courses will not count toward the degree requirements.

## Policies on Non-Residential Academic Credit

- Policy on Transfer of Academic Credit
- Policy on Credit for Clinical Pastoral Education and Specialized Internships
- Advanced Academic Standing

## Policy on Transfer of Academic Credit

**Credit earned prior to matriculation.** Academic credit earned at another school may be submitted for review during the first semester a student is enrolled in a degree program. Transfer credit is awarded through the Office of Academic Affairs at the recommendation of the faculty committee on curriculum and academic policy. A student may not transfer more than 24 hours of credit into the Master of Divinity program. No more than 10 of these transfer credits will be awarded as required courses. Students should be prepared to submit supporting documents, including course transcripts and syllabi, to the faculty committee and registrar.

In order for class standing to reflect transfer credit, a student must submit their final transcripts and/or CPE certificates by August 1 for the fall semester or January 4 for the spring semester.

The following requirements must be met before a request for transfer credit can be submitted:

1. The course must be taken at an institution accredited by an accrediting body recognized by the U.S. Department of Education or the Council on Post-Secondary Education.
2. Courses must be taken at the graduate or professional level.
3. A grade of B- or higher must be earned in the course in order for the course to be considered for transfer credit. If the course is to be considered for transfer credit as a required course the grade earned must be a B or higher.
4. Applicants for transfer credit must have earned the credit after earning a bachelor's degree.
5. The course must have been taken within the eight years prior to matriculating at the School of Divinity.
6. Any course credit earned that has been utilized or will be utilized for another degree program is not normally transferred.
7. No more than 12 hours will be transferred from a non-theological graduate program. If 12 hours are to be transferred, the student will be required to demonstrate the course's or courses' relevance to the Master of Divinity degree.

**Credit earned during matriculation.** Credit earned at another institution while enrolled in a degree program at the Wake Forest University School of Divinity is subject to the general transfer credit guidelines. All coursework taken at another institution during matriculation and

intended for transfer must be preapproved by the associate dean of academic affairs on recommendation from the faculty Curriculum and Academic Policy Committee.

## Policy on Credit for Clinical Pastoral Education and Specialized Internships

Students enrolled in the Master of Divinity program may earn credit by successfully completing an accredited program in Clinical Pastoral Education. To receive credit for Clinical Pastoral Education, the student must provide to the Office of Academic Affairs a letter from the accredited program stating the number of units the student has completed. Additional credit may be earned in a select number of internships. Information is available in the Office of Academic Affairs.

## Advanced Academic Standing

Students who can demonstrate that they have had the academic equivalent of required courses may petition the associate dean of academic affairs to substitute advanced elective courses for those requirements. Ordinarily, advanced standing is without credit, exempting certain classes but not reducing the total number of credits required for the degree. Advanced standing with credit cannot be granted on the basis of life or ministerial experience. Advanced standing should account for no more than one quarter of total degree requirements. The associate dean of academic affairs will forward appropriate petitions to the faculty committee on curriculum and academic policy, which will make a recommendation to the associate dean of academic affairs for final approval.

## Graduation Application Process

**Third year students must apply for graduation in order for their records to be activated for certification.** The application form is provided by the registrar at the beginning of the third year. Applications must be submitted to the registrar no later than 30 days prior to the expected commencement date. During the final term, the associate dean of academic affairs and the registrar will examine each candidate's transcript. All requirements, except those satisfied by courses in progress, must be completed no later than 30 days prior to the expected commencement date. All requirements must be completed and certified, and the student must have applied for hooding or graduation before a student may participate in the commencement exercises. No further entries or alterations may be made toward the Master of Divinity degree once the student has graduated.

## Holds for Registration or Graduation

Holds placed on a student account result from a lack of payment of tuition, overdue library books, unpaid fines, failure to provide proper medical information to Student Health Services, or failure to meet preset academic requirements. Holds may only be lifted from a student record by the office that issues a hold. For example, a hold on one's financial account can only be lifted by the Office of Financial and Accounting Services. Holds may prevent one from registering for courses or from graduating. Each student is responsible for addressing the circumstances related to holds.



## Grievance Policy

Situations may arise in which a student believes that they have not received fair treatment by a representative of the University or has a complaint about the performance, actions, or inaction of the staff or faculty affecting a student.

Students are encouraged to seek assistance from their advisers or another member of the faculty or staff in evaluating the nature of their complaints or deciding on an appropriate course of action.

The School of Divinity provides the following process for students to voice concerns regarding specific academic or other grievances:

**Step 1.** Student concerns about professors or staff persons, specific courses, or other matters should begin with a conference with the particular professor or staff person, offering formal or informal statements of concern.

**Step 2.** If the concern is not resolved in consultation with the professor or staff person, then the student(s) should schedule a conference with the associate dean of academic affairs. At that time, an informal or formal statement of concern will be brought to the associate dean of academic affairs.

**Step 3.** The associate dean of academic affairs will attempt to resolve the issue to the satisfaction of the relevant parties by convening a meeting between the student(s) and the professor or staff person. If the associate dean of academic affairs is the professor against whom the student(s) has the grievance, the student(s) may begin the appeal with the dean of the School of Divinity.

**Step 4.** If the issue remains unresolved, the student(s) may appeal to the dean of the School of Divinity who will meet with the student(s) and the professor or staff person and attempt to resolve the issue formally or informally. Formal grievances against the dean should be made to the University provost. The provost will function in the dean's role in the remaining steps of the process.

**Step 5.** If concerns remain, the student may initiate a formal grievance procedure. At this point, the student(s) should present the grievance in the form of a written statement of concern. Within 14 days, the dean will appoint a grievance committee composed of two faculty members and one student. The committee will meet with the student(s) making the appeal, the professor or staff person, and the associate dean of academic affairs for a full discussion of the grievance.

**Step 6.** The committee will make a recommendation to the dean who will communicate the final decision in writing to the student(s) and the professor or staff person.

## Student Academic Code of Conduct

- Plagiarism
- Honor Code

## Plagiarism

To put your name on a piece of work is to say that it is yours, that the praise or criticism due to it is due to you. To put your name on a piece of work any part of which is not yours is plagiarism unless that piece is clearly marked and the work from which you have borrowed is fully identified. Plagiarism is a form of theft. Taking words, phrasing, sentence

structure, or any other element of the expression of another person's ideas, and using them as if they were yours, is like taking from that person a material possession, something he or she has worked for and earned. Even worse is the appropriation of someone else's ideas. "Ideas" mean everything from the definition or interpretation of a single word to the overall approach or argument. If you paraphrase, you merely translate from his or her language to yours; another person's ideas in your language are still not your ideas. Paraphrase, therefore, without proper documentation, is theft, perhaps of the worst kind. Here, a person loses not a material possession, but something of what characterized him or her as an individual.

If students wish to do one project for two courses or to draw on work previously done in order to complete an assignment for a current course, they must get the expressed permission of all affected faculty in advance of turning in the assignment. The faculty suggests that approved combined projects should represent significantly more effort than the individual projects they supplanted.

Plagiarism is a serious violation of another person's rights, whether the material stolen is great or small; it is not a matter of degree or intent. You know how much you would have had to say without someone else's help, and you know how much you have added on your own. Your responsibility, when you put your name on a piece of work, is simply to distinguish between what is yours and what is not, and to credit those who have in any way contributed.

An online plagiarism tutorial is available here (<https://english.wfu.edu/course-information/academic-writing/>) through the Department of English. An online guide to the Chicago Style of referencing works is available here ([http://www.chicagomanualofstyle.org/tools\\_citationguide.html](http://www.chicagomanualofstyle.org/tools_citationguide.html)).

## Honor Code

**The honesty, trustworthiness, and personal integrity of each student** are integral to the life and purposes of the School of Divinity and of the broad Wake Forest community. When any student signs an application for admission to any of the schools of Wake Forest University, that student agrees to live by the honor system of the University. The mutual commitments and standards of conduct stipulated in the honor system derive from the founding of Wake Forest University and are a cornerstone of community life and relationships.

The Divinity School and the Graduate School share a formal Honor Code to provide guidance for student conduct with respect to academic pursuits. This policy may be accessed at the Graduate School website on the following page under the heading Rules and Policies:

<https://graduate.wfu.edu/reynolda-campus-homepage/>.

All students in the School of Divinity commit themselves to the following code:

We conduct our academic endeavors with honor, integrity, and professionalism. We do our own work, credit the work of others, and provide the full truth about our work.

Violations of the graduate student honor code include lying, cheating, stealing, vandalism, research misconduct, or failure to report an Honor Code violation by any graduate student in his or her academic pursuits or within the university community.

In most cases, allegations of violations are handled by the Graduate Honor Council, which includes both faculty and student representatives from the Graduate School and the School of Divinity. In some situations, allegations of violations may be handled by the administration and the faculty of the School of Divinity.

## Non-Academic Student Code of Conduct

- Professional Integrity
- Adjudicating Student Conduct Code Violations
- Appeal of Decisions Regarding Conduct Violations
- Administrative Withdrawal Policy

The Wake Forest University School of Divinity expects good citizenship and responsible behavior from students. When these expectations are not met, the non-academic misconduct process may be used to redirect students into more acceptable patterns of behavior. This process encourages students to take responsibility for their choices and actions, while also allowing the University to determine an appropriate disciplinary response. This includes commitments as they relate to the Sexual Misconduct Policy and the Student Code of Conduct outlined in the Office of the Dean of Students (<https://deanofstudents.wfu.edu/>).

Misconduct cases may result in the sanction of a formal reprimand and the imposition of an educational condition, or a more severe level of sanction, including disciplinary probation, suspension or expulsion. Students need to be aware that certain types of behaviors may be deemed incompatible with membership in the School's community, and that choices they make can compromise their education and future.

The list below, while not exhaustive, includes examples of the types of prohibited conduct for which students are subject to disciplinary action:

- a. Actual or threatened physical injury to any person on University owned or controlled property or at a University-sponsored or supervised function, or conduct that endangers the health or safety of a person.
- b. Engaging in individual or group conduct that is violent, abusive, indecent, unreasonably loud, or similar disorderly conduct that infringes upon the privacy, rights, or privileges of others or disturbs the peace or the orderly process of education on campus. Alleged sexual misconduct will be governed under the University's sexual misconduct policy.
- c. In violation of University policy, unauthorized use, possession, or storage of any weapon or explosive (including fireworks) on University premises or at University sponsored activities.
- d. Forgery, counterfeiting, alteration, or misuse of any University record, document, or identification card.
- e. Unauthorized entry into or alteration of any University computer records, or violation of University computer use policies.
- f. Sending threatening or obscene messages to another student or individual via e-mail, phone or voice-mail.
- g. Knowingly filing a false police, honor code or non-academic honor code report.
- h. Misrepresentation in seeking financial aid or University benefits.
- i. Unlawful possession, use, distribution, or sale of any narcotic or dangerous drug as defined by the statutes of the State of North Carolina and/or University policies.

- j. Theft of, or unwarranted damage to, University property or property of any member of the University community.
- k. Failure to comply with Housing regulations.
  - l. Failure to comply with the lawful directives of University employees acting within the scope of their duties; including those directives issued by a University administrator to ensure the safety and well-being of students.
- m. Entry into, or use of, any building, facility, or room or other University property or grounds without authorized approval. This also includes the unauthorized possession or use of University keys, lock combinations, or other access codes.
- n. Participation in illegal gambling activities on University-owned or controlled property or at a function identified with the University.
- o. Possession, or consumption, of alcoholic beverages in contradiction of state law and/or University policy.
- p. Entering or attempting to enter any event without proper credentials for admission (e.g., ticket, identification card, or invitation).
- q. Failure to make satisfactory settlement for any debts to the University.
- r. Failure to comply with University traffic rules and regulations.

The School shall have the authority to hold students accountable under this Code of Conduct for certain off-campus behaviors (i.e., behavior that does not occur on University premises or in the context of a University, School, or student organization sponsored event or activity) that adversely affects a substantial University or School interest. In determining whether the conduct adversely affects a substantial University or School interest, the following shall be considered:

- a. Whether the conduct constitutes or would constitute a serious criminal offense, regardless of the existence of any criminal proceedings.
- b. Whether the conduct indicates that the student presented or may present a danger or threat to the health or safety of himself, herself or others.
- c. Whether the conduct demonstrates a pattern of behavior that impairs the University's or School's ability to fulfill its mission.

## Professional Integrity

Professional integrity for divinity students is defined by the standards of integrity common to all professions and is further specified by those virtues of character required by Christian ministry. A person of integrity acts in a way that is congruent with what is professed in words and intended in thought, displays especially the virtues of truth and fairness, exhibits a consistent character over time, and takes responsibility for his or her actions.

## Adjudicating Student Conduct Code Violations

Alleged breaches in non-academic student conduct and/or professional integrity should be reported in a timely manner to the senior associate dean, who will conduct a preliminary investigation. Failure to report alleged breaches in a timely manner could impede the school's ability to investigate or substantiate the allegations. The senior associate dean may consult with the associate dean of academic affairs. If further investigation is required, the senior associate dean, in collaboration with the associate dean of academic affairs, may then appoint an ad hoc committee consisting of two faculty members and chaired by

an additional faculty member. If such a committee is appointed, the senior associate dean will inform the accused person in writing of the allegations against him/her, the name(s) of those who reported the charges, and the date, time, and place of the hearing on these charges. If further investigation is not required, the person reporting the alleged breach will be notified of that fact in writing.

The accused will be allowed reasonable time to prepare a response and will be granted the privilege of an adviser to be chosen by the student from the School of Divinity faculty. The adviser shall assist the student in the process. In all hearings, the accused will have the right to be present at all times during the hearing except when the committee retires to deliberate and makes its decision. Evidence shall be admitted without regard to the rules of evidence in courts of law. The accused student may present evidence to the committee.

All materials and information related to the case should be confidentially submitted to the senior associate dean. Any verbal reports related to the case will be documented in writing by the senior associate dean. A written summary report of the findings will be provided by the senior associate dean to the accused student, ad hoc faculty committee, associate dean of academic affairs, and the dean of the School of Divinity.

After thorough review of the case, the committee will decide whether the accused has violated the code of conduct. A majority vote of the committee will suffice for a finding of responsibility. If the person is found to have violated the student code of conduct, the committee may decide on one or more of the following actions or such other action as the committee deems appropriate:

- a. A written reprimand;
- b. Denial of specified University privileges;
- c. Payment of restitution;
- d. Educational or service sanctions, including community service;
- e. Disciplinary probation;
- f. Imposition of reasonable terms and conditions on continued student status;
- g. Removal from a course in progress;
- h. Enrollment restrictions on a course or program;
- i. Suspension; or
- j. Expulsion

## Appeal of Decisions Regarding Conduct Violations

Complainants and accused students may file a written request with the associate dean of academic affairs of the School of Divinity within fourteen calendar days of the notification to the student. In the letter to the associate dean of academic affairs, the student must indicate the reasons for the appeal and supply any relevant documents supporting the appeal. Grounds for an appeal include:

- Sufficiency of the evidence to support the decision;
- Appropriateness of the sanction;
- Germane new evidence not available at the time of the hearing that could significantly impact the outcome; and/or
- Procedural errors that significantly impact the outcome.

After reviewing the request for appeal, the associate dean of academic affairs may deny the request for an appeal, may render a new decision in the case, or may increase or decrease the severity of the action taken. The associate dean of academic affairs will render a final decision on the appeal and inform the student of his or her decision in writing. Records will be kept of the outcome of the proceedings and kept in the student's file.

## Administrative Withdrawal Policy

- Procedure for Administrative Withdrawal
- Evaluation
- Informal Hearing
- Appeal Process
- Emergency Suspension
- Conditions for Reenrollment

The Board of Trustees has empowered the president with the authority to suspend students from the University in "cases of clear and present danger to lives and property...and in instances of violence to persons..." Such suspensions are to be reviewed by the regular judicial bodies within 14 school days.

A student may be subject to administrative withdrawal from the University when, in the judgment of the director of Student Health Service, the director of the counseling center, or the senior associate dean, and with the concurrence of the Office of the Vice President and Dean, Student Affairs, the student:

- A. Engages, or threatens to engage, in behavior that poses a significant danger of causing imminent physical or psychological harm to self or others, or
- B. Directly and substantially impedes the activities of members of the University community, including other students, University employees, and visitors.

The standard and procedures to be followed are on file in the Offices of the Vice President and Dean, Student Affairs and the senior associate dean.

## Procedure for Administrative Withdrawal

When the senior associate dean and the associate dean of academic affairs, or his/her designee, based on a student's conduct, actions or statements, has reasonable cause to believe that the student meets one or more of the criteria for administrative withdrawal, he or she may initiate an assessment of the student's ability to safely participate in the University's program.

The senior associate dean and associate dean of academic affairs may initiate this assessment by first meeting with the student to:

1. Review available information concerning the behavior and/or incidents which have caused concern,
2. Provide the student with a copy of the Administrative Withdrawal Policy and Procedure and discuss its contents with the student,
3. Provide the student an opportunity to explain his/her behavior, and
4. Discuss options available to the student, including counseling, voluntary withdrawal and evaluation for involuntary withdrawal. If the student agrees to withdraw voluntarily from the University and waives

any right to any further procedures available under this policy, the student will be given a grade of W for all courses, will be advised in writing of any conditions necessary prior to reenrollment, and will be referred for appropriate mental health services. If the student refuses to withdraw voluntarily from the University, and there continues to be reasonable cause to believe the student meets one or more of the criteria for administrative withdrawal, the senior associate dean or the associate dean of academic affairs may require the student to be evaluated by an appropriate mental health professional.

## Evaluation

The senior associate dean and associate dean of academic affairs may refer the student for a mandatory evaluation by an appropriate mental health professional. The mental health professional may be selected by the University, so long as there is no cost to the student for the evaluation. A written copy of the involuntary referral shall be provided to the student. The evaluation must be completed within five school days after the date the referral letter is provided to the student. Prior to the evaluation, the student will be required to sign a written authorization authorizing the exchange of relevant information among the mental health professional(s) and the University. Upon completion of the evaluation, copies of the evaluation report will be provided to the associate dean and the student.

The mental health professional making the evaluation shall make an individualized and objective assessment of the student's ability to safely participate in WFU's program, based on a reasonable professional judgment relying on the most current medical knowledge and/or the best available objective evidence. This assessment shall include a determination of the nature, duration and severity of the risk posed by the student to the health or safety of himself/herself or others, the probability that the potentially threatening injury will actually occur, and whether reasonable modifications of policies, practices or procedures will sufficiently mitigate the risk. The mental health professional will, with appropriate authorization, share his/ her recommendation with the senior associate dean or the associate dean of academic affairs who will take this recommendation into consideration in determining whether the student should be involuntarily withdrawn from Wake Forest. A copy of the mental health professional's recommendation will be provided to the student, unless, in the opinion of the mental health professional, it would be damaging to the student to do so. If the evaluation results in a determination by the mental health professional that the student's continued attendance presents no significant risk to the health or safety of the student or others, and no significant threat to property, to the lawful activities of others, or to the educational processes and orderly operations of the University, no further action shall be taken to withdraw the student from the University.

If the evaluation results in a determination that the continued attendance of the student presents a significant risk to the health or safety of the student or others, such that there is a high probability of substantial harm, or a significant threat to property, to the lawful activities of others, or to the educational processes and orderly operations of the University, the student may be administratively withdrawn from the University. In such an event, the student shall be informed in writing of the withdrawal, of his/her right to a hearing, of his/her right to appeal the decision of the hearing officer, and of any conditions necessary for reenrollment.

## Informal Hearing

A student who has been administratively withdrawn may request an informal hearing before a hearing officer appointed by the associate dean of academic affairs by submitting a written request to be heard within two business days from receipt of the notice of the administrative withdrawal. A hearing will be set as soon as possible.

The student shall remain involuntarily suspended pending completion of the hearing.

The hearing shall be informal and non-adversarial. During the hearing, the student may present relevant information and may be advised by a School of Divinity faculty or staff member or a licensed health professional of his/her choice. The role of the adviser is limited to providing advice to the student.

At the conclusion of the hearing, the hearing officer shall decide whether to uphold the administrative withdrawal or whether to reconsider, and the student shall be provided written notice of the hearing officer's decision as soon as possible.

## Appeal Process

The student may appeal the hearing officer's decision to the dean, who shall review all information presented and make a final decision as to whether or not to uphold the involuntary withdrawal.

## Emergency Suspension

The University may take emergency action to suspend a student pending a final decision on whether the student will be administratively withdrawn, in situations in which:

- a. There is imminent danger of serious physical harm to the student or others,
- b. There is imminent danger of significant property damage,
- c. The student is unable or unwilling to meet with the associate dean of academic affairs,
- d. The student refuses to complete the mandatory evaluation; or
- e. The senior associate dean, the associate dean of academic affairs, or the dean of the School of Divinity determines such other exceptional circumstances exist that suspension is warranted.

In the event emergency action is taken to suspend the student on an interim basis, the student shall be given notice of the emergency suspension and an initial opportunity to address the circumstances on which the emergency suspension is based.

## Conditions for Reenrollment

Because the Administrative Withdrawal Policy applies to cases in which there is a concern about the safety of the student or others, the associate dean of academic affairs, the dean of the School of Divinity, or his/her designee may require a student who has been administratively withdrawn under this policy to be reevaluated before he/she is readmitted in order to assure that he/she presents no clear and present danger to lives and property.



## Important Contacts

Contact	Phone Number
Campus Advocacy and Support Service; Assistance available to all students 24-hours	336.758.5285
University Title IX Coordinator, Jessica Harris Telligman (titleixcoordinator@wfu.edu)	336.758.7258
<b>Reynolda Campus Resources</b>	
Student Health Service; 24-hours when school is in session, excluding summer	336.758.5218
University Police	336.758.5911
University Chaplain; For emergencies after hours, contact Student Health Service	336.758.5017
University Counseling Center; For emergencies after hours, contact Student Health Service	336.758.5273
PREPARE Student Advocates; Available 24-hours to undergraduate students during fall and spring semesters when school is in session	336.671.7075
Office of the Dean of Student Services	336.758.5226
Residence Life and Housing	336.758.5185
Wake Forest Compliance Hotline	877.880.7888
<b>Medical Center Campus Resources</b>	
Student Wellness Center	336.713.7002
Associate Dean for Student Services	336.716.4271
Medical Center Security	336.716.3305
<b>Community Resources</b>	
Sexual Assault Response Program; 24 hour rape crisis service sponsored by Family Services	336.722.4457
Forsyth Medical Center Emergency Dept.	336.718.2001
WF Baptist Medical Center Emergency Dept.	336.713.9000
Winston-Salem Police or Forsyth County Sheriff's Department	911

# STUDENT LIFE

- Academic Coaching and Support Services
- Community Life
- Spiritual Life and Worship
- Leadership Development and Career Services
- Housing and Meals
- School of Divinity Student Government
- Student Organizations
- Special Events

## Academic Coaching and Support Services

Wake Forest School of Divinity offers academic support to all interested students through the Academic Coaching and Support Services, under the direction of the Academic Skills Instructor. Coaching is available to assist students with the academic skills necessary to be successful in graduate theological education at Wake Forest University.

Services include one-on-one coaching sessions and an array of workshops to facilitate academic success. From basic academic skills to refreshers on grammar and writing practices to advice on developing good study habits, the School of Divinity supports students in doing their best. The Academic Skills Instructor is available to help students with a variety of academic questions and concerns, including effective reading strategies, writing skills, research questions, time management coaching, and much more.

Academic coaching is free and available to every School of Divinity student. Resources are also available here (<https://divinity.wfu.edu/academics/academic-resources/academic-coaching-support/>).

## Community Life

The School of Divinity recognizes that formation and education together create a learning community. Interaction among students and faculty outside classrooms is integral to the School of Divinity experience. Ecumenical theological education embraces a commitment to community building and engagement: in classrooms, in worship, in study spaces, in surrounding communities of life and work, and in informal School of Divinity settings. Community life is celebrated and cultivated at the School of Divinity in three primary ways: communal worship, spiritual growth opportunities, and cultivation of common spaces for study, conversation, and relaxation.

Worship at the School of Divinity is multifaceted. Students have opportunities to worship together as part of the School of Divinity's weekly rhythms. A Worship Design Team made up of students, faculty, and staff curates each service through music, ritual, and proclamation. The services amplify the voices of an array of proclaimers, including guest clergy, faculty, and third-year students. Chapel services at the School of Divinity are a learning laboratory. They also offer a moment of sabbath in the midst of hectic days of classes and other responsibilities. The Worship with Wait program also provides worship programming throughout the year in collaboration with other University leaders and offices and often with partner congregations and religious leaders. Highlights each year of Universitywide worship events include the Moravian Christmas Lovefeast, an annual Service of Remembrance, and

special services on other Holy Days. Students can also discover diverse worship opportunities throughout Winston-Salem and surrounding areas.

The School of Divinity recognizes the importance of community-wide opportunities for **spiritual nurture and growth**. Students have opportunities to experience worship, prayer, and meditation through an array of internship settings. Students also have seasonal opportunities to participate in retreats, group spiritual practices, and other events designed to explore and cultivate spiritual renewal and growth.

Community is formed as people gather in **common spaces** to learn, play, rest, share meals, and dialogue about important events in their lives. The School of Divinity provides a number of common spaces that allow for communal interaction and conversation. Students also discover common spaces across the Reynolda campus and in nearby Reynolda Gardens. Both the Office of Student Life and student organizations utilize campus common spaces to hold workshops, celebratory meals, and other events, and conversations about topics important to the community.

## Leadership Development and Career Services

The School of Divinity is interested in preparing students to be public leaders in diverse ministry contexts.

## Pathways in Ministry

Pathways in Ministry provides workshops and panel discussions to support students in their vocational discernment by exposing them to the many paths of engaging in professional ministry and to provide resources for personal and professional skill development so students may attain and thrive in life-giving ministry careers. These workshops include such offerings as: "Finding and Keeping the Perfect Job," "Building a Narrative Resume," "Prison and Jail Chaplaincy," "Career and Internship Fair," "Starting a Nonprofit," and "Bi-Vocational Ministry."

## Career Services

Career Services is the dimension of the School of Divinity that assists current students and recent alumni with finding vocational pathways for future employment. Career Services, which is housed within Student Services, provides the following services:

- resources for students from vocational seminars and workshops to denominational connections to career counseling;
- opportunities for potential employers to network with students and find future employees;
- job postings from congregations, chaplaincy settings, nonprofit organizations, and other ministry agencies that are made available to students through email announcements and website postings.

Students and recent alumni are encouraged to utilize the resources of Career Services throughout and after their educational programs at the School of Divinity. More information on Leadership Development and Career Services, including job listings, can be found at <http://www.divinity.wfu.edu/career-services> (<http://www.divinity.wfu.edu/career-services/>).

## Housing and Meals

The School of Divinity does not require that students live in University housing. Most students prefer to make their own arrangements for housing with the assistance of the Office of Admissions and Student

Services in the School of Divinity. Options available range from individual rooms in University-owned properties adjacent to the campus to private apartments.

The Office of Residence Life and Housing, located in the University Services Building, serves as an information center for individuals who wish to advertise rooms, apartments, and houses for rent or sale. It also provides a place for students to list information if they are interested in finding a roommate to share expenses. Off-campus facilities listed with the Office of Residence Life and Housing are not screened. The University serves as an information source and does not assume responsibility for placement, lease agreements, or landlord-tenant relations.

School of Divinity students provide for their own meals. Community lunches are provided by the School of Divinity, area churches, and other groups once a week after chapel. Drink machines, microwave ovens, and refrigerators are available in the lower auditorium of the Divinity and Religious Studies Building.

Divinity students may elect to purchase one of the University's optional board plans. A cafeteria and a buffet service dining room are located in Reynolda Hall, and food courts offering fast food are located in the Benson University Center. For more information, contact:

ARAMARK Campus Dining Services  
Box 7393  
WinstonSalem, N.C., 27109

Visit [www.wakeforest.campusdish.com](http://www.wakeforest.campusdish.com) (<http://www.wakeforest.campusdish.com>) for more information.

## School of Divinity Student Government

**The Student Leadership Council (SLC) of the School of Divinity** is the constituted student governing body. The SLC gives voice to student concerns in the School of Divinity and in the broader University. Elected by the student body, representatives of the SLC coordinate special events, sponsor various organizations, and appoint students to the School of Divinity's standing committees.

The student government elects officers in the Spring of each academic year. The Student Leadership Committee (SLC) is the established liaison between faculty and students and has established a number of sub-committees to serve our School of Divinity community. The purposes of the SLC are:

- To present itself as a community of faith, under the Gospel of Jesus Christ, in witness and in fellowship.
- To provide students with programs, activities and services.
- To represent the Student Association before the School of Divinity's administration.

## Student Organizations

**The Office of Admissions and Student Services plans and coordinates the school's student life programs and events.** The office advises the Student Leadership Council and student organizations and student publications. Student organizations at the School of Divinity include:

## Akoni

Akoni provides a platform for students of African ancestry and for all Wake Forest students, faculty, and staff to explore theological education focused on the black religious experience, the Black Church as an expression of black religion, and the social, religious and political needs and concerns of the students and the black community.

## Amazing Grace

Amazing Grace is a group of dancers dedicated to using the body as a means of expression in worship. Using different styles of dance, Amazing Grace offers an opportunity to bring dance into the space of worship, ministering during Community Worship and other events at the School of Divinity. They welcome all who are interested to join.

## Beatitudes

The Beatitudes Society develops and sustains a national network of emerging Christian leaders who advocate for justice, compassion, and peace, reclaim a Christianity that welcomes all people, and articulates a Christianity that dares to speak and act for our fragile planet and our most vulnerable citizens. The Beatitudes Society Chapter at the School of Divinity is a community of students and faculty who gather for support, action, reflection, and prayer. The group gathers biweekly at a student's home for a simple meal and lectio divina. They provide resources and opportunities for small group studies and arrange activities advocating for or engaging in social justice.

## Commonplace

Commonplace seeks to deepen the knowledge, formation, and sense of community of those concerned with ideas of food, health, ecological justice, and faith. This student organization organizes hiking trips, shares meals, attends events off-campus, and serves together. We also sponsor community lunches periodically which are sourced locally.

## Kaleidoscope

The primary goal of Kaleidoscope is to serve as a safe and welcoming environment for lesbian, gay, bisexual, transgender, queer, questioning, intersex and allied students, faculty, and staff from all cultural, socio-economic, ethnic, and ecumenical backgrounds. Additionally, the group seeks to provide opportunities for all divinity school students, faculty, and staff to ask questions and dialogue with mutual respect so as to promote understanding of and engagement with LGBTQ matters.

## Lift Every Voice

Lift Every Voice aims to provide opportunities of worship through music. They are a group of singers and musicians who rehearse weekly and often minister in Chapel and in the greater Winston Salem community, through gospel music. Lift Every Voice welcomes all that want to be a part of this ministry as singers or musicians as we continue to grow, expand to different styles of music and minister through song.

## Mosaic

Mosaic seeks to share the experience of God through artistic expression. The group nurtures and facilitates spiritual growth and expression through artistic media and promotes the use of the arts in the worship, service, contemplative, and communal life of the divinity school, as well as the University and Winston-Salem community.

## Pentecostal Charismatic Student Organization (PCSO)

The PCSO is a gathering of Pentecostal/Charismatic students at Wake Forest University School of Divinity as well as any student interested in the study and/or practice of Pentecostalism. The PCSO provides a scholarly and sacred space for the exploration of sociocultural identity expressions, theological formation, and spiritual direction among Pentecostal/Charismatic Christians, combining historical-critical and interdisciplinary religious studies with active participation in faith communities. Any and all students are welcome to engage with any of PCSO's activities.

## Physical Wellness

The School of Divinity values whole body wellness. The Physical Wellness Club seeks to create a fun and positive means for students, faculty, and staff to be active, stay healthy, and build community. This organization offers events throughout the school year and furthers the already developed interest and participation in Wake Forest University Intramural Sports. Some of our opportunities include Flag Football, Soccer, Tennis, and Dodgeball Intramural teams, weekly yoga sessions, Zumba with the Deans, March Madness Bracket Challenge, and various study breaks during finals week.

## Sistah Circle

Sistah circle consists of women working together to encourage and uplift the ministry of fellow members, curate educational, social, and restorative gatherings, lead worship, and host events with other organizations that reflect its mission towards all women.

## The Split Chalice

The Split Chalice is a student-run publication of the School of Divinity. It serves as an informative, community-building vehicle covering upcoming activities, vocational topics, campus events, financial aid and classified ads.

## Women's Work

Women's Work is a fellowship of women who are passionate about womanhood, specifically in the ministry. It is a sacred space for women to share experiences as well as an opportunity for women to safely explore the power of their own voice. The group invites distinguished faculty and community leaders to lead discussions around topics that help the women of the divinity school grow into ministerial identities. Women's Work welcomes the divinity school community of men to join in and hear the voices of these distinguished women throughout the semester.

More information about the Student Leadership Council and student organizations can be found online at <https://divinity.wfu.edu/student-life/student-organizations/>.

## Special Events

### The Mac Bryan Prophetic Preaching Series

Established in honor and memory of George McLeod "Mac" Bryan, Sr. ('41, MA '44) by George ('61) and Carol ('64) Williamson, long-time supporters of Wake Forest and early advocates for the importance of the School of Divinity. Bryan was professor of religion and taught at the University for thirty-seven years after joining the religion faculty in 1956. He introduced

courses on feminism, religion and science, medical ethics, and black and liberation theology. He fought tirelessly for Civil Rights, pursued social reform, and was instrumental in helping to integrate Wake Forest College in the 1960s. Bryan wrote several books on social justice, including *These Few Also Paid a Price and Voices in the Wilderness*. The series brings preachers and speakers to campus who will inspire students to live and serve at the intersection of Christianity and social justice.

### The Margaret A. Steelman Lectures

Endowed in 1998 with a gift from Stanford L. Steelman, a distinguished biochemist from Hickory, NC, in honor of his wife Margaret A. Steelman. The endowment invites prominent lectures of Judeo-Christian theology to the divinity school each year. Past lecturers include distinguished speakers Susan R. Garrett of Louisville Presbyterian Theological Seminary, Marcus J. Borg, acclaimed author and theologian, William Schweiker, director of the Martin Marty Center, and Edward L. Ryerson, distinguished service professor of theological ethics at the University of Chicago Divinity School.



# FACULTY

## William P. Boyce (2021)

Faith and Health Postdoctoral Teaching Fellow and Scholar  
BA, Florida State University; M.Litt, University of Glasgow; MA, Gordon-Conwell Theological Seminary; PhD, University of Virginia.  
<https://divinity.wfu.edu/academics/faculty/william-boyce/>

## Jacob Cook (2021)

Thriving Congregations Lilly Endowment Grant Initiative Postdoctoral Teaching Fellow and Scholar  
BA, Friends University; MDiv, Mercer University McAfee School of Theology; PhD, Fuller Theological Seminary.  
<https://divinity.wfu.edu/academics/faculty/jacob-cook/>

## Jill Y. Crainshaw (1999)

Professor of Worship and Liturgical Theology  
BA, Wake Forest University; MDiv, Southeastern Baptist Theological Seminary; PhD, Union Theological Seminary/Presbyterian School of Christian Education.  
<https://divinity.wfu.edu/academics/faculty/jill-y-crainshaw/>

## Elizabeth O'Donnell Gandolfo (2015)

Earley Associate Professor of Catholic and Latin American Studies  
BA, Saint Joseph's University; MTS, University of Notre Dame; PhD, Emory University.  
<https://divinity.wfu.edu/academics/faculty/elizabeth-odonnell-gandolfo/>

## Gary Gunderson (2012)

Professor of Faith and Health of the Public  
BA, Wake Forest University; MDiv, Emory University; SMin, Interdenominational Theological Center; DDiv, Chicago Theological Seminary.  
<https://divinity.wfu.edu/academics/faculty/gary-gunderson/>

## Melanie L. Harris (2021)

Professor of Black Feminist Thought and Womanist Theology and Director of the Food, Health and Ecological WellBeing Program  
BA, Spelman College; MDiv, Iliff School of Theology; MA, PhD, Union Theological Seminary.  
<https://divinity.wfu.edu/academics/faculty/melanie-l-harris/>

## Derek S. Hicks (2011)

Associate Professor of Religion and Culture  
BA, Grambling State University; MA, Dallas Theological Seminary; PhD, Rice University.  
<https://divinity.wfu.edu/academics/faculty/derek-s-hicks/>

## Mark E. Jensen (2010)

Teaching Professor of Pastoral Care and Pastoral Theology  
BA, Houston Baptist; MDiv, Southern Baptist Theological Seminary; PhD, Southern Baptist Theological Seminary.  
<https://divinity.wfu.edu/academics/faculty/mark-e-jensen/>

## Shonda R. Jones (2011)

Senior Associate Dean and Assistant Teaching Professor in Intercultural Theological Education  
BA, Texas Christian University; MDiv, Brite Divinity School, Texas Christian University; EdD, University of Alabama.  
<https://divinity.wfu.edu/academics/faculty/shonda-r-jones/>

## Kevin Jung (2007)

Associate Dean of Academic Affairs and Professor of Theological Ethics and Moral Philosophy  
BA, Seoul Theological University; MDiv, Princeton Theological Seminary; STM, Yale Divinity School; PhD, University of Chicago.  
<https://divinity.wfu.edu/academics/faculty/kevin-jung/>

## Bill J. Leonard (1999)

Founding Dean and Professor of Divinity Emeritus  
BA, Texas Wesleyan University; MDiv, Southwestern Baptist Theological Seminary; PhD, Boston University.  
<https://divinity.wfu.edu/academics/faculty/bill-j-leonard/>

## C. Austin Rivera (2021)

Assistant Professor of Church History  
AB, University of Chicago; MDiv, Duke Divinity School; PhD, Yale University.  
<https://divinity.wfu.edu/academics/faculty/austin-rivera/>

## Melva L. Sampson (2017)

Assistant Professor of Preaching and Practical Theology  
BA, Virginia Union University; MDiv, Emory University; MA, Howard University; PhD, Emory University.  
<https://divinity.wfu.edu/academics/faculty/melva-l-sampson/>

## Katherine A. Shaner (2013)

Associate Professor of New Testament  
BA, Luther College; MDiv, Harvard Divinity School; Certificate of Studies, Lutheran School of Theology at Chicago; ThD, Harvard Divinity School.  
<https://divinity.wfu.edu/academics/faculty/katherine-a-shaner/>

## Neal H. Walls (2002)

Associate Professor of Old Testament Interpretation  
AB, College of William and Mary; MA, University of Virginia; PhD, Johns Hopkins University.  
<https://divinity.wfu.edu/academics/faculty/neal-h-walls/>

## Jonathan Lee Walton (2019)

Dean and Presidential Chair of Religion and Society, Dean of Wait Chapel  
BA, Morehouse College; MDiv, Princeton Theological Seminary; PhD, Princeton Theological Seminary.  
<https://divinity.wfu.edu/academics/faculty/jonathan-l-walton/>

## Briana L. Wong (2020)

Visiting Assistant Professor of World Christianity  
BA, Columbia University; MDiv, Princeton Theological Seminary; PhD, Princeton Theological Seminary.  
<https://divinity.wfu.edu/academics/faculty/brianawong/>

## Senior Leadership

### Jonathan Lee Walton

**Dean of the School of Divinity, Presidential Chair of Religion and Society, and Dean of Wait Chapel**  
*BA, Morehouse College; MDiv, PhD, Princeton Theological Seminary*

### Kevin Jung

**Professor of Theological Ethics and Moral Philosophy, and Associate Dean of Academic Affairs**

*BA, Seoul Theological University; MDiv, Princeton Theological Seminary; STM, Yale Divinity School; PhD, University of Chicago*

### DeeDe Pinckney Holly

**Director, Marketing, Communications, and Public Relations**

*BA, Wake Forest University; MA, University of North Carolina at Greensboro; PhD, Regent University*

**Dixie Ross**  
**Director, Finance and Administration**  
*BS, MBA, Vanderbilt University*

**Sheila Virgil**  
**Assistant Dean of Development**  
*BA, St. John's College (Annapolis); MNO, Case Western Reserve University*

## Staff

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**Program Manager of the Baptist Commons**  
*BS, Baylor University; MS, Quinnipiac University*

**Thomas P. Benza**  
**Director of Student Financial Aid**  
*BS, BA, Appalachian State University; MA, Wake Forest University*

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**Financial and Data Analyst, COMPASS Initiative Faith Coordinating Center**  
*BA, Wake Forest University*

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**Multimedia Coordinator**  
*BS, Radford University*

**Marcus Hawley**  
**Program Administrator, COMPASS Initiative Faith Coordinating Center**  
*BA, Hampton University*

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**Financial Aid Counselor**  
*BA, UNC-Chapel Hill; MS, Wake Forest University*

**Brittani Hunt (MDiv '15)**  
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*BBA, Tennessee State University; MDiv, Wake Forest University*

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**Academic Skills Coordinator**  
*BA, Queens University of Charlotte; MDiv, Wake Forest University*

**Rayce Lamb (MDiv '16)**  
**Director of Ministry and Vocational Exploration**  
*BA, Emory and Henry College; MDiv, Wake Forest University*

**Allison Mathews**  
**Executive Director, COMPASS Initiative Faith Coordinating Center**  
*BA, Howard University; PhD, UNC-Chapel Hill*

**Demi McCoy (MDiv '17)**  
**Creative Program Manager, COMPASS Initiative Faith Coordinating Center**  
*BA, Pepperdine University; MDiv, Wake Forest University*

**Kaeley McMahan**  
**Research and Instruction Librarian Arts, Religion, Divinity**  
*BA, Wheaton College; MA, Wake Forest University; MLIS, UNC-Greensboro*

**Sally Ann Morris**  
**Musician-in-Residence**

*BM, St. Andrews Presbyterian College*

**Clinton J. Moyer**  
**Development Coordinator**  
*BA, University of Washington; MA, PhD, Cornell University*

**Darnysa Nard**  
**Program Coordinator for the Clergy in Community Lilly Endowment Grant Initiative**  
*BA, Virginia Commonwealth University; MDiv, Wake Forest University*

**Sue Robertson**  
**Executive Assistant to the Dean**  
*BA, Indiana University*

**John Senior**  
**Assistant Dean of Vocational Formation**  
**Director of the Art of Ministry**  
*AB, Bowdoin College; MDiv, Harvard Divinity School; PhD, Emory University*

**Mary Ellen Walter**  
**Assistant Registrar**  
*BA, UNC-Chapel Hill*

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