ENVIRONMENT AND SUSTAINABILITY STUDIES PROGRAM (ENV)

Interdisciplinary Program

The goal of the Environment and Sustainability Studies (ENV) Program is to prepare students to create just and sustainable futures. The ENV Program at Wake Forest University is centered on the dynamic, generative space created by combining the natural sciences, humanities, and social sciences to address environmental challenges and to act within communities for environmental justice.

The Environment and Sustainability Studies Program faculty apply biology, English, earth sciences, anthropology, history, geography, art, economics, engineering, communication, philosophy, physics, education, political sciences, business, dance, statistics, religion, public health, journalism, computer sciences, and law to human-environment relationships and are committed to transformative environmental change. The ENV Program at Wake Forest University offers two majors, in 1) Environmental Science and 2) Environment and Sustainability Studies, and two minors, in 1) Environmental Science and 2) Environmental Studies.

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 (https://bulletin.wfu.edu/undergraduate/departments-programs/biology/#programstext), Biochemistry and Molecular Biology (https://bulletin.wfu.edu/undergraduate/departments-programs/biochemistry-molecular-biology/bs-biochemistry-molecular-biology/), or Chemistry with a concentration in Biochemistry (https://bulletin.wfu.edu/undergraduate/departments-programs/chemistry/bs-chemistry-concentration-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 cannot be counted toward both the Biology major requirements and the Environmental Studies Minor.
3. Because of the number of shared courses, Environment and Sustainability Studies majors and/or Environmental Science majors cannot declare the Biology minor.
4. Students can minor in both Biology and Environmental Science or Environmental Studies.

Contact Information

Environment and Sustainability Studies Program (https://env.wfu.edu/)

Programs

Majors

- Environment and Sustainability Studies, BA (https://bulletin.wfu.edu/undergraduate/departments-programs/environmental-program/ba-environmental-sustainability-studies/)
- Environmental Science, BA (https://bulletin.wfu.edu/undergraduate/departments-programs/environmental-program/ba-environmental-science/)

Minors

- Environmental Science, Minor (https://bulletin.wfu.edu/undergraduate/departments-programs/environmental-program/minor-environmental-science/)
- Environmental Studies, Minor (https://bulletin.wfu.edu/undergraduate/departments-programs/environmental-program/minor-environmental-studies/)

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)
Develops knowledge and practice for effective change agency. Students articulate their own emerging leadership perspectives, create fundamental elements of a peer education and/or outreach campaign, and identify a range of locally appropriate solutions to systemic problems contributing to global climate change.

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.

ENV 250. Methods for Environmental Community Collaboration and Justice. (3 h)
Provides approaches and experiential learning on how to work with communities on socio-environmental issues. Draws from social justice work, participatory action research, citizen science, Indigenous methods, and anticolonial activism to build collaboration with community partners and cultivate a more equitable society.

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 321. Earth's Dynamic Surface. (3 h)
Investigation into the processes responsible for the formation and subsequent evolution of Earth's landforms. Course activities examine Earth surface features using maps, digital and/or field-based data collection and analysis, and the fundamental geologic constraints on environmental problems. P ENV 220.

ENV 340. Water Resources. (3 h)
Examines the quality and quantity of local, national, and global water resources. Topics include hydrology, flooding, and water scarcity, pollution, usage, policy, and management. Emphasizes Yadkin River basin, including how the region's history influences local water systems and the communities that depend on them.

ENV 350. Ethnobotany. (3 h)
Surveys the complex interrelationships of people and plants throughout space and time. Uses experiential and embodied approaches to learning about plants in landscapes and labs.

ENV 350L. Ethnobotany Lab. (1 h)
C- ENV 350.

ENV 360. Climate Change. (3 h)
Explores the socio-ecology of climate change, pursuing the topic through the natural sciences, social sciences, and humanities. Includes how to affect change and climate justice.

ENV 379. Introduction to Geographic Information Systems (GIS). (3 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. Lab included. Also listed as BIO 379. C-ENV 379L.

ENV 379L. Introduction to Geographic Information Systems (GIS) Lab. (1 h)
C-ENV 379.

ENV 381. Wilderness, the Anthropocene, and Global Sustainability. (3 h)
Intensive, writing-centered, experiential field course focusing on the relationships between humans and the natural world in the context of sustainability issues. Field components of the course take place in Alaska. Permission of instructor required.

ENV 391. Individual Study. (1-4 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. May be repeated for credit.

ENV 394. Environmental Internship. (1-4 h)
Supervised internships with governmental agencies, nonprofit organizations and businesses. P-POI.

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:
Julie Velásquez Runk
Core Faculty:
Courtney Di Vittorio (Department of Engineering)
Sheri Floge (Biology Department)
Melanie Harris (African American Studies Program/Divinity School)
Lucas Johnston (Department for the Study of Religions)
Lauren Lowman (Department of Engineering)
Miles Silman (Biology Department)
Stephen Smith (Environment and Sustainability Studies Program)
Eric Stottlemyer (English Department/Office of the Dean of the College)
Affiliate Faculty:
E. Mark Curtis (Economics Department)
Robert Erhardt (Mathematics and Statistics Department)
Meredith Farmer (English Department)
Andrius Galisanka (Department of Politics and International Affairs)
Frederick Harris (School of Business)
Rowie Kirby-Straker (Communication Department)
Abdou Lachgar (Department of Chemistry)
Jed Macosko (Physics Department)
Judith Madera (English Department)
Stan Meiburg (Sustainability Program)
Monique O'Connell (Department of History)
Paúl 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)