

ENVIRONMENT (ENVR)

ENVR 101 - Introduction to the Environment (3 Credits)

Analysis of environmental issues and the role of science in their identification and resolution.

Carolina Core: SCI

ENVR 101L - Introduction to the Environment Lab (1 Credit)

Demonstrations, field trips, data analyses, and discussion relating to environmental issues, such as sustainability, resource management, and pollution control.

Prerequisite or Corequisite: C or better in ENVR 101.

Carolina Core: SCI

ENVR 121 - Green Explorations (3 Credits)

Interdisciplinary seminar combining the intellectual exploration of ecological perspectives with the physical exploration of the local environment. First-year students only.

Cross-listed course: POLI 121

ENVR 122 - Green Engagements (3 Credits)

Interdisciplinary seminar on designing, researching, and implementing collaborative projects to promote ecological sustainability. First-year students only.

Cross-listed course: POLI 122

Graduation with Leadership Distinction: GLD: Community Service, GLD: Research

ENVR 200 - Natural History of South Carolina (4 Credits)

General review of plants, animals, and geological features of South Carolina, with an emphasis on connections to the natural world.

Carolina Core: SCI

ENVR 201 - Environmental Science and Policy I (4 Credits)

Introduction to interdisciplinary and multidisciplinary perspectives on environmental issues. Required for majors in the Environment and Sustainability Program. Integrative case studies address ways of understanding nature. Sophomore Standing.

ENVR 202 - Environmental Science and Policy II (4 Credits)

Continuing interdisciplinary and multidisciplinary exploration of relations between environment and society for majors in the Environment and Sustainability Program. Case studies raise issues, challenges, and strategies to achieving sustainability.

ENVR 231 - Introduction to Sustainability Management and Leadership (3-4 Credits)

Introduction to development, establishment, and implementation of sustainability management systems and organizational leadership for achieving environmental, social, and economic goals.

ENVR 295 - Green Technology in Germany (3 Credits)

Examination of roots and culture of environmentalism and related technological innovation in Germany. Comparison of green practices around the world to practices within Europe and U.S.

Cross-listed course: GERM 295

Graduation with Leadership Distinction: GLD: Community Service

ENVR 310 - Surface and Subsurface Hydrology (4 Credits)

Environmental considerations of the hydrologic cycle. Occurrence and movement of surface water and groundwater as they relate to water budgets, water supply, and ecosystems. Geochemistry of natural waters, water quality, and pollution.

Prerequisites: C or higher in MATH 122 or MATH 141; C or higher in GEOL 101, GEOL 103, GEOL 201, GEOG 104, GEOG 201, ENVR 101, ENVR 201, ECIV 101 or MSCI 101.

Cross-listed course: GEOL 310

ENVR 321 - Environmental Pollution and Health (3 Credits)

A survey of pollution (chemical, biological, physical) effects on environmental quality and public health with emphases on how each pollutant class behaves and affects individual and community health over acute to chronic exposure periods.

Cross-listed course: ENHS 321

ENVR 322 - Environmental Ethics (3 Credits)

Examination of principles and arguments surrounding moral issues involving the environment.

Cross-listed course: PHIL 322

Carolina Core: VSR

Graduation with Leadership Distinction: GLD: Community Service, GLD: Diversity and Social Advocacy, GLD: Professional and Civic Engagement Leadership Experiences, GLD: Research

ENVR 323 - Global Environmental Health (3 Credits)

Concerns in global environmental health, with a focus on toxic pollution and disease burden in developing countries. Investigation of international treaties, corresponding environmental pollution processes, and human health effects.

Cross-listed course: ENHS 323

ENVR 331 - Integrating Sustainability (3 Credits)

Multidisciplinary approach to interrelated environmental, economic and social problems facing humans at local, regional and global scales.

ENVR 342 - Environmental Anthropology: Cross-cultural Perspectives on Environmental Change (3 Credits)

Cross-cultural perspectives on environmental issues.

Cross-listed course: ANTH 342

ENVR 348 - Environmental Racism and Justice (3 Credits)

History of the environmental justice movement and the unequal distribution of environmental harms on low income, minority, and historically marginalized groups.

Cross-listed course: AFAM 348

ENVR 352 - Energy, Society and Sustainability (3 Credits)

The role of energy in shaping society and geographic settings, as well as how energy production and consumption are shaped by the societal values and norms in which it is extracted, produced, and consumed.

ENVR 360 - SEOE Peer Mentorship, Leadership, & Professional Development (1 Credit)

Exploration of post-graduation opportunities in academia and industry. Interactive discussion of topics including helping skills, active listening, oral communication, goal setting, interviewing, and building a strong professional portfolio.

Cross-listed course: GEOL 360, MSCI 360

Graduation with Leadership Distinction: GLD: Professional and Civic Engagement Leadership Experiences

ENVR 365 - Data Science in Earth, Ocean and Environmental Science (3 Credits)

Computational analysis of earth, marine, and environmental datasets applying time series analysis, regression, filtering, and statistical analysis.

Prerequisites: C or better in CSCE 206 or higher; C or better in MATH 122 or higher.

Cross-listed course: GEOL 365, MSCI 365

ENVR 399 - Independent Study (1-6 Credits)

Contract approved by instructor, advisor, and dean of the School of the Environment is required for undergraduate students.

Graduation with Leadership Distinction: GLD: Research

ENVR 460 - Congaree National Park: Field Investigations in Environmental Science (4 Credits)

Field research practices and analysis techniques in environmental science. Combines inquiry-based field investigations at Congaree National Park and laboratory sample analysis with integration of data and public policy concepts. Daily field trips required.

Prerequisites: C or better in ENVR 201 and ENVR 202.

ENVR 480 - Capstone Seminar in Environmental Science and Environmental Studies (3 Credits)

Collaborative study of a contemporary environmental issue. Field trips may be required.

ENVR 490 - Special Topics in Sustainability and the Environment (1-4 Credits)

Current developments in sustainability and global environmental issues selected to meet faculty and student interests. May be repeated as content varies.

ENVR 495 - Internship in the Environment (0-6 Credits)

Supervised internship experience in a professional environment within the field of the environment and/or related environmental sciences or studies. Undergraduate internship contract required with approval of instructor, advisor, and department head before registration.

Prerequisites: C or better in ENVR 201 and ENVR 202.

Graduation with Leadership Distinction: GLD: Professional and Civic Engagement Internships

Experiential Learning: Experiential Learning Opportunity

ENVR 499 - Research in Environmental Science (1-3 Credits)

Independent student research in collaboration with faculty mentors. Contract approved by instructor, advisor, and department chair is required.

Graduation with Leadership Distinction: GLD: Research

ENVR 500 - Environmental Practicum (3 Credits)

Multidisciplinary research projects related to University or community environmental problems (e.g., energy, water conservation, solid waste, recycling).

ENVR 501 - Special Topics in the Environment (3 Credits)

An in-depth analysis course of a specific interdisciplinary environmental topic. Course content varies and will be announced in the schedule of classes by title.

Prerequisites: C or better in ENVR 101 or ENVR 201.

ENVR 503 - Environmental Microbiology (3 Credits)

An overview of the microbial world including a survey of the distribution, functioning, and diversity of microorganisms in natural systems.

Discusses the crucial roles that microorganisms play in ecosystem function, biogeochemical cycles, and environmental quality.

Prerequisites: C or better in MSCI 102 or BIOL 102; C or better in CHEM 112.

Cross-listed course: BIOL 502, MSCI 503

ENVR 504 - Climate Geoengineering (3 Credits)

This course will discuss the urgent need for deploying solar radiation and carbon dioxide removal approaches at scale, including potential benefits and risks of these options. It will also discuss regulatory and governance considerations at both the national and international level and strategizes to incentivize large-scale adoption of these approaches.

Cross-listed course: GEOL 504, MSCI 504

ENVR 517 - Socionatural Coastlines in Global Perspective (3 Credits)

A discussion-based seminar course that examines nature-society relations in coastal regions globally. The course will use social theory to understand how uneven development processes shaped – and continue shaping – current coastlines. We will explore key topics including coastal capitalism, delta ecologies, and climate justice via several global case studies.

Cross-listed course: GEOG 517

ENVR 531 - Sustainability Management and Leadership Strategies (3-4 Credits)

Integrated management system principles and advanced leadership strategies to create sustainable development initiatives.

ENVR 533 - Sustainability Projects Course (3 Credits)

Research, development and implementation of sustainability projects throughout the campus and community.

ENVR 534 - Water and Sanitation in Global Perspective (3 Credits)

Interdisciplinary examination of the global policy challenge of ensuring equitable access to water and sanitation services for all.

ENVR 538 - Global Food Politics (3 Credits)

Political, social, and cultural landscapes of food and farming around the world; issues of agricultural production, trade, consumption, and food security.

Cross-listed course: GEOG 538

ENVR 540 - Decolonizing the Environment: Race, Nature, Power (3 Credits)

Critical examination of the ways ideas about nature and racial difference are conceptually and materially entwined with the production of social and environmental inequalities.

ENVR 548 - Environmental Economics (3 Credits)

An analysis of the economics aspects of environmental decay, pollution control, and natural resource use. Analysis of the ability of the market system to allocate resources efficiently when economic activity is accompanied by environmental damage. Discussion of alternative public policy approaches to pollution control and natural resource conservation.

Prerequisites: C or better in ECON 221 and ECON 222 or C or better in ECON 224.

Cross-listed course: ECON 548

ENVR 571 - Conservation Biology (3 Credits)

Principles of conservation biology. Importance of biodiversity, causes of decline and extinction, and restoration and conservation policy in terrestrial and aquatic ecosystems.

Prerequisites: C or better in BIOL 301.

Cross-listed course: BIOL 571

ENVR 572 - Freshwater Ecology (3 Credits)

Quantitative study of the population, community and evolutionary ecology of freshwater habitats (lakes, ponds, rivers, streams, wetlands). Includes mandatory fieldtrips.

Prerequisites: C or better in BIOL 301.

Cross-listed course: BIOL 572