

ENVIRONMENTAL STUDIES

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www.mcla.edu/envi (<http://www.mcla.edu/envi/>)

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Environmental Studies Major

Students in the Environmental Studies major select one of two concentrations: Environmental Science or Environmental Sustainability. The environmental studies major at MCLA prepares students to address challenges of global sustainability. Environmental studies students are part of a close-knit academic community who work to find solutions to regional environmental challenges beginning their freshman year of college in collaboration with local partnering environmental institutions. Hands-on learning takes place in the classroom, in the field, in the laboratory, and as part of research and internships. As an interdisciplinary program, students take courses in departments and disciplines including biology, chemistry, geology, law, and public policy.

Students graduating with a major in Environmental Studies will be able to:

- Use classical skills such as critical thinking, research, speaking and writing as they apply to contemporary environmental issues;
- Use particular technologies necessary for modern professionals in the sciences, social sciences, and humanities;
- Quickly assess environmental problems and work effectively in a team to suggest realistic solutions;
- Enter either the professional world or graduate school with broad understanding, specific skills and significant experience in environmental studies.

Environmental Studies Programs

- Earth Science Minor (<https://catalog.mcla.edu/undergraduate/academic-programs-study/environmental-studies/earth-science-minor/>)
- Environmental Science Minor (<https://catalog.mcla.edu/undergraduate/academic-programs-study/environmental-studies/environmental-science-minor/>)
- Environmental Studies - Environmental Science Concentration, B.S. (<https://catalog.mcla.edu/undergraduate/academic-programs-study/environmental-studies/environmental-studies-environmental-science-concentration-bs/>)
- Environmental Studies - Environmental Sustainability Concentration, B.S. (<https://catalog.mcla.edu/undergraduate/academic-programs-study/environmental-studies/environmental-studies-environmental-sustainability-concentration-bs/>)
- Environmental Sustainability Minor (<https://catalog.mcla.edu/undergraduate/academic-programs-study/environmental-studies/environmental-sustainability-minor/>)
- Outdoor Leadership Minor (<https://catalog.mcla.edu/undergraduate/academic-programs-study/environmental-studies/outdoor-leadership-minor/>)

Environmental Studies Major Foundation Courses

Code	Title	Hours
BIOL 160 or BIOL 235	Introduction to Biology II: Organisms Botany	4
ENVI 100	Environmental Studies: Entering Student Seminar	1
ENVI 150H	Honors: Introduction to Environmental Systems	4
ENVI 152H	Honors: Environmental Sustainability	4
ENVI 260	Green Living Seminar	2
ENVI 325	Geographic Information Systems	4
ENVI 400	Environmental Studies: Senior Seminar	1
ENVI 401 or ENVI 540	Independent Research Internship in Environmental Studies	3
ERTH 152	Introduction to Physical Geology	4
Total Hours		27

Environmental Studies Courses

ENVI 100 Environmental Studies: Entering Student Seminar 1 cr
Introduces students to environmental studies in order to inform students about academic and professional opportunities in the field. Supports incoming students in beginning to develop a professional portfolio, and provides information about research, internships, graduate schools, and jobs through presentations and interactions with peers and mentors. This seminar is required for all MCLA environmental studies majors and will be graded on a pass/fail basis.

Prerequisite: ENVI Major

ENVI 150 Introduction to Environmental Systems 4 cr
Provides a foundation in the physical, chemical and biological principles of environmental science in order to explore Earth's terrestrial, aquatic and atmospheric systems. Directly investigates freshwater and forest environments of the northeast in the context of the scientific method.

Corequisite: ENVI 150L

Attributes: Core Science & Tech w/lab (CSTL), Environmental Studies (ENVI)

ENVI 150H Honors: Introduction to Environmental Systems 4 cr
Provides an interdisciplinary foundation in the physical, chemical and biological principles of environmental science in order to explore earth's terrestrial, aquatic and atmospheric systems. Historical case studies illustrate political and ethical dimensions of environmental issues. Lab exercises familiarize you with the forest and freshwater environments of the northeast and how the scientific method is used to analyze and understand the relation between humans and the natural environment.

Corequisite: ENVI 150LH

Attributes: Core Science & Tech w/lab (CSTL), Environmental Studies (ENVI), Honors Program (HONR)

ENVI 152H Honors: Environmental Sustainability 4 cr
Provides a foundation in the nature and properties of natural resources in the context of sustainable environmental management. Students will consider and apply the paradigm of social, environmental and economic sustainability to a variety of natural resource issues such as fossil fuels, renewable energy, wastewater, forestry and wildlife, land protection, food production, urbanization and solid waste and recycling.

Corequisite: ENVI 152LH

Attributes: Environmental Studies (ENVI), Honors Program (HONR)

ENVI 225 Nature of New England**4 cr**

Surveys the nature of New England and focuses on the natural history and identification of representative vertebrate animals of the region. It will introduce the physical setting of New England, investigate various communities and ecosystems of the region, and discuss nature in winter and how animals cope with the extremes of winter. The class format includes lecture, student presentations, and class discussions of assigned readings. Required lab component that includes field based activities.

Corequisite: ENVI 225L**Attributes:** Core Science & Tech w/lab (CSTL), Environmental Studies (ENVI)**ENVI 226 Nature of New England****3 cr**

Surveys the nature of New England and focuses on the natural history and identification of representative vertebrate animals of the region. The first part of the course will introduce the physical setting of New England. Subsequently, it will cover various communities and ecosystems of the region, identify the distinguishing vegetation for selected ecosystems, describe the natural history of those ecosystems, and emphasize the identity, biology, and ecology of representative vertebrate animals.

Attributes: Core Science & Tech w/o lab (CST), Environmental Studies (ENVI)**ENVI 230 Introduction to Outdoor Leadership****4 cr**

Prepares outdoor leaders by introducing and applying outdoor leadership skills and knowledge. Focuses on history, theory, ethics, and techniques needed to safely conduct outdoor programs. Includes Leave no Trace, wilderness conditions, judgement and decision making, group dynamics, and program logistics. This course includes three mandatory weekend activities: overnight hike, survival skills weekend, and survival skills practicum.

Attributes: Environmental Studies (ENVI)**ENVI 250 Special Topics in Environmental Studies****3 cr**

Focuses attention on a special environmental topic or issue at an introductory level of investigation.

Prerequisite: Sophomore status or instructor approval**Attributes:** Environmental Studies (ENVI)**Repeatable:** Unlimited Credits**ENVI 260 Green Living Seminar****2 cr**

Utilizes the format of individual reports and/or group discussions of current papers, topics or problems in environmental studies. May also be organized around a seminar series with invited speakers. This course will be graded on a pass/fail basis.

Attributes: Environmental Studies (ENVI)**Repeatable:** Maximum of 8 credits**ENVI 299 Environmental Studies Practicum****1-3 cr**

Offers environmental studies students an opportunity to gain practical experience in an appropriate professional situation. The student will work with a faculty sponsor and an off-campus supervisor in gaining experience significant to the major. Course can be repeated up to a maximum of 4 credits.

Prerequisite: Department approval**Attributes:** Environmental Studies (ENVI)**Repeatable:** Maximum of 4 credits**ENVI 305 Ecology and Management of the Adirondack Park****2 cr**

Focuses on the history, management and natural habitats of the Adirondack Park in New York. Includes travel to the Adirondacks with visits to natural areas and interpretive sites as well as meetings with scientists and land managers. The Adirondack Park will be examined as a case study in sustainability, with a focus on understanding the tensions inherent with simultaneously managing for the region's wilderness, residents, and visitors.

Prerequisite: Instructor approval**ENVI 310 Politics and Environmental Policy****3 cr**

Focuses on political science and government in national, regional and international organizations throughout the world. Topics include: United Nations, state and local government, politics and economics of the Pacific Rim.

Prerequisite: Junior/senior status**Attributes:** Environmental Studies (ENVI)**ENVI 315 Environmental Economics****3 cr**

Introduces students to the economic analysis of the conflict between our lifestyle of unlimited wants and the scarce resources of our biological environment. Examines economic theory and applications to explain the dynamics of conflict. Uses an economic approach to solving environmental problems; students will research, analyze, and report on environmental public policy issues.

Prerequisite: ENVI 150 or ENVI 150H or ENVI 152H or ECON 241 or ECON 242 and junior status**Attributes:** Environmental Studies (ENVI)**ENVI 320 Methods in Environmental Research****4 cr**

Investigates the methods used by environmental researchers to formulate research problems, collect and analyze data and present results professionally; examines sampling techniques, field procedures, and limitations of equipment and research design.

Prerequisite: ENVI 150H, ENVI 152H, Tier I Quantitative Reasoning, junior status**Corequisite:** ENVI 320L**Attributes:** Environmental Studies (ENVI)**ENVI 325 Geographic Information Systems****4 cr**

Geographic Information Systems/Science is rapidly becoming the optimum approach for displaying and analyzing both spatial and temporal data in virtually every field. Through a series of "on the job" projects, students will learn the concepts, terminology and computer skills necessary to apply these skills to a variety of subject and occupational areas. Students will complete a final project, report and presentation using GIS in their area of interest.

Corequisite: ENVI 325L**Attributes:** Environmental Studies (ENVI)**ENVI 340 Environmental Law****3 cr**

Studies the development of an American consciousness toward the environment throughout our nation's history, emphasizing the political, economic and social forces at work in the consequent creation of United States environmental law. This law will then be considered in detail through the examination of federal, state and local environmental protection legislation, regulations and related court decisions.

Prerequisite: Junior status**Attributes:** Environmental Studies (ENVI)

ENVI 340H Honors: Environmental Law**3 cr**

Studies the development of American consciousness toward the environment throughout our nation's history, emphasizing the political, economic and social forces at work in the consequent creation of United States environmental law. This law will then be considered in detail through the examination of federal, state and local environmental protection legislation, regulations and related court decisions.

Prerequisite: Junior status**Attributes:** Environmental Studies (ENVI), Honors Program (HONR)**ENVI 350 Advanced Special Topics in Environmental Studies****1-4 cr**

Focuses attention on a special environmental topic or issue at an advanced level of study.

Prerequisite: Junior status**Attributes:** Environmental Studies (ENVI)**Repeatable:** Unlimited Credits**ENVI 351 Ornithology****4 cr**

Provides an overview of the fundamental principles of avian biology with emphasis on ecological and behavioral aspects of ornithology. Students will learn to identify about 100 regional species by sight and/or sound. A semester-long project will encourage students to investigate and read the ornithological peer-reviewed scientific literature. Lab activities will include field trips to practice identifying birds and collecting avian field data.

Prerequisite: BIOL 100 or BIOL 150 or ENVI 150 or ENVI 150H**Corequisite:** ENVI 351L**Attributes:** Environmental Studies (ENVI)**ENVI 352 Environmental Justice****3 cr**

Explores the concept of environmental justice through interdisciplinary lenses, including sociological, scientific, literary, and philosophical perspectives. Examines the history of the EJ movement as a response to environmentalist movements that failed to consider differentiated impacts on people based on race, gender, and economic status. Historic and current case studies from around the world serve as concrete examples to enable us to grasp patterns and economic connections.

Prerequisite: Junior/senior status**ENVI 355 Everglades and South Florida****3 cr**

Explores the history, ecology, and current events of the Everglades and South Florida. Through an extended field trip through South Florida, students will explore the historical and contemporary interactions of people with their environment. Using an environmental history perspective, students will examine topics such as agricultural practices, development pressures, Everglades management, threatened and endangered species, water conservation, natural areas management, and prehistoric people.

Attributes: Environmental Studies (ENVI)**ENVI 360 Advanced Special Topics in Environmental Science****1-4 cr**

Examines the aspects of environment predominantly from life science perspective. Courses may focus on particular taxa, or particular biological organization at the level of the organism, population, community, or ecosystem. Courses may also focus on various aspects of ecology.

Attributes: Environmental Studies (ENVI)**Repeatable:** Unlimited Credits**ENVI 375 Aquatic Ecology****4 cr**

Focuses on the physical, chemical, and biological environment of freshwater systems, as well as on common methods used in the study of these systems. Concepts will be applied to addressing current challenges in conserving freshwater resources.

Prerequisite: BIOL 100 or BIOL 150 or ENVI 150H**Corequisite:** ENVI 375L**Attributes:** Environmental Studies (ENVI)**ENVI 400 Environmental Studies: Senior Seminar****1 cr**

Provides a culminating experience for graduating ENVI majors as they prepare to pursue graduate school or employment in the environmental field. Supports students in completing their academic portfolio and in finding and successfully applying for jobs and graduate school. Incorporates a variety of presentations by students and outside professionals. This seminar is required for all MCLA environmental studies majors and will be graded on a pass/fail basis.

Prerequisite: ENVI Major and senior status**ENVI 401 Independent Research****1-3 cr**

For environmental studies majors who desire to conduct research on a specific topic in environmental studies. The research will be under the supervision and direction of the instructor and will require a scholarly report.

Prerequisite: Department approval**Attributes:** Environmental Studies (ENVI)**Repeatable:** Maximum of 6 credits**ENVI 425 Advanced Geographic Information Systems (GIS)****4 cr**

Builds on ENVI 325, providing opportunities for conceptualizing and solving spatial/temporal problems within the student's primary field of study. Complex spatial analysis, quantitative methods, process model building and the substantial use of remotely sensed data will be key elements of this course. Topics will also include geo-coding, mapping ethics and 3-D map visualization.

Prerequisite: ENVI 325 (grade of C or better)**Corequisite:** ENVI 425L**Attributes:** Environmental Studies (ENVI)**ENVI 499 Teaching Assistantship in Environmental Studies****1-3 cr**

Provides the opportunity for the student to assist in the preparation and implementation of an environmental studies course. This course will be graded on a pass/fail basis.

Prerequisite: Department approval**Attributes:** Environmental Studies (ENVI)**Repeatable:** Maximum of 6 credits**ENVI 500 Independent Study in Environmental Studies****1-3 cr**

Open to juniors and seniors who wish to study a topic in depth. Written reports and frequent conferences with the advisor are required.

Prerequisite: Junior/senior status, department approval**Attributes:** Environmental Studies (ENVI)**Repeatable:** Maximum of 12 credits**ENVI 540 Internship in Environmental Studies****1-15 cr**

Offers the environmental studies major an opportunity to practice in an appropriate professional situation. The student will work with a faculty sponsor and an off-campus supervisor in gaining experience significant to the major.

Prerequisite: Junior/senior status, departmental approval**Attributes:** Environmental Studies (ENVI)**Repeatable:** Maximum of 15 credits

Earth Science Courses

ERTH 152 Introduction to Physical Geology**4 cr**

Studies the earth, including the origin and types of earth materials, volcanism and crystal deformation, external earth processes and development of landscapes, geological resources, and geological processes as natural hazards.

Corequisite: EARTH 152L**Attributes:** Core Science & Tech w/lab (CSTL), Environmental Studies (ENVI)

ERTH 300 Topics in Physical Geography 1-4 cr

Analyzes and evaluates selected contemporary problems in Earth Science.

Prerequisite: EARTH 152

Attributes: Environmental Studies (ENVI)

Repeatable: Unlimited Credits

ERTH 312 Introduction to Soil Science 4 cr

Focuses on soil formation, glacial sediments, chemical and biological soil processes, and soil fertility. Topics of special interest will include sustainable agriculture and permaculture, environmental contaminants, deforestation and erosion, and wetlands. Required laboratory with emphasis on field work.

Prerequisite: ENVI 150H or EARTH 152

Corequisite: EARTH 312L

ERTH 330 National Parks and Monuments 3 cr

Studies the topography, geology, climate, flora, fauna and scenic qualities of national parks and monuments by describing the history of the national park system and factors threatening its existence.

Prerequisite: Completion of Tier II Science and Technology Requirement

Attributes: Environmental Studies (ENVI)

ERTH 500 Independent Study 1-3 cr

Independent effort directed to the in-depth study of some aspect of earth science.

Prerequisite: Department approval

Attributes: Environmental Studies (ENVI)

Repeatable: Maximum of 12 credits

ENVIRONMENTAL STUDIES: TEACHER LICENSURE

Students majoring in environmental studies may opt to pursue initial teacher licensure as an early childhood teacher or elementary teacher. Students seeking any of these licenses must complete an environmental studies major, education major and a licensure program in education.