

The Bachelor of Science degree with a mathematics requirement and primary majors in natural sciences and history is designed to provide students with substantive academic content in the discipline of their choice. The program prepares students for teaching opportunities in elementary and secondary education after completion of additional methodology courses required for teacher certification in all states. The degree also provides an academic foundation for students interested in pursuing further graduate education necessary for postsecondary teaching positions in natural science or history at most colleges and universities.

Focused studies are designed to provide an interdisciplinary component that will increase the student's breadth of learning. The program will provide workers in business and government, as well as education, with learning that promotes critical thinking, information utilization, collaboration, communication, and analytical skills essential to effective and efficient work productivity.

The concentration in Environmental Science is designed to provide students with a comprehensive understanding of the relationship between scientific principles and the environment. Topics will include biological and ecological fundamentals, the environment and society, environmental management and law, global health, risk assessment, ethics and technology.

These courses fulfill only part of the 120 minimum-credit requirement for degree completion.

Required Foundation Courses

These courses may count towards General Education requirements or Electives

GEN 200 Foundations for General Education and Professional Success

This general education course is designed to introduce the intentional learner to communication, collaboration, information utilization, critical thinking, problem solving and professional competence and values. The course uses an interdisciplinary approach for the learner to develop personal, academic strategies in order to reach desired goals and achieve academic success. (3 credits)

COMM 215 Essentials of College Writing

This course covers the essential writing skills required for college-level coursework. Students will learn to distinguish between interpretive and analytical writing while using the writing process and specific rhetorical strategies to develop position and persuasion essays and a case study analysis, while Learning Teams will prepare an applied research paper. The course offers exercises for review of the elements of grammar, mechanics, style, citation and proper documentation. (3 credits)

The U.S. Department of Education requires the University to provide the following information about each of our programs that lead to gainful employment in a recognized profession.

Because fewer than 10 students completed this program during the relevant award year, the Department of Education does not permit us to disclose the on-time completion rate.¹

Related occupations²

Environmental Scientists and Specialists, Including Health #19-2041.00

Program costs³

Tuition and fees \$33,800 to \$54,115
Includes cost per credit, application fee, and fees for resources (books/eResources) for students completing the program in normal time.

Median graduate debt⁴

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| Federal | N/A |
| Private | N/A |
| Institutional | N/A |

¹ The on-time completion rate identifies the percentage of students completing this program during the most recent federal award year who completed it within "normal time." The term "normal time" means the length of time it would take a student to complete this program if the student is continuously enrolled, takes one course at a time, and successfully completes each attempted course. Students enrolled in this degree program are typically nontraditional students. Students may exceed "normal time" for a variety of reasons, including, but not limited to, internships, practicums, clinical rotations, student teaching or administrator experiences required for licensure.

² Graduates of this program will be educationally qualified to enter the occupations listed. Visit onetonline.org for job descriptions.

³ The range provided represents the sum of tuition and typical fees required to complete the program within normal time, based on the University's 2011/2012 tuition levels. The actual costs that will be incurred by a particular student to complete this program will depend upon factors specific to that student. Tuition rates for this program may vary due to factors such as: (i) geographic location of the student; (ii) modality of coursework; (iii) military service; and (iv) future changes in tuition rates. The number of credits required for a particular student to complete the program will be dependent upon various factors, including: (i) transfer credits available; (ii) repeated coursework; and (iii) completion of additional specializations within this program. Please contact an Enrollment Advisor for additional information.

⁴ The figure represents the median amount of debt incurred by students who completed the program during the relevant federal award year. The actual amount of debt a particular student will incur to complete this program is dependent on various factors specific to the student. Please contact an Enrollment Advisor for additional information. Because fewer than 10 students completed this program during the most recent federal award year, we are not permitted to disclose this information.

Bachelor of Science with a Concentration in Environmental Science

MTH 209 College Mathematics II

This course continues the demonstration and examination of various basic algebra concepts which was begun in MTH 208 College Mathematics I. It assists in building skills for performing more complex mathematical operations and problem solving than in earlier courses. These concepts and skills should serve as a foundation for subsequent quantitative business coursework. Applications to real-world problems are emphasized throughout the course. Specific applications to disciplines such as statistics, accounting, finance, and economics are demonstrated and discussed. A variety of other applications, such as geometry, personal finance, science, and engineering, are also demonstrated and discussed. (3 credits) Prerequisite: MTH 208

STAT 167 Statistics for the Life Sciences

This course will examine the concepts of statistics leading to the application of these concepts to the life sciences. Topics will include populations and samples, random sampling, probabilities, distributions, and confidence intervals. (3 credits) Prerequisite: MTH 209

Required Lower Division courses

BIO 101 Principles of Biology

This course is designed to introduce biology at an entry level by examining the hierarchy that ranges from the fundamentals of cell biology to the physiology of organisms, and the interactions among those organisms in their environment. The topics in this course include cell biology, genetics, molecular biology, evolution, physiology, and ecology. (3 credits) Prerequisites: GEN 200 and COMM 215

CHM 110 Introductory Chemistry

This course will examine the basic principles of chemistry conceptually and specifically. The course will apply chemical concepts to address relevant issues ranging from atomic structure and chemical reactions to organic and biological chemistry. The course topics include matter and energy, chemical bonding, intermolecular forces, chemical equilibrium, and nuclear, organic, and biological chemistry. Students will apply these concepts using practical examples and facilitated discussions. (3 credits) Prerequisites: GEN 200, COMM 215, and MTH 209

ENV 100 Principles of Environmental Science

This course will provide students with the scientific principles, concepts, and methodologies that are required to identify and analyze risks associated with environmental problems, and examine alternative solutions for resolving or preventing these problems. (3 credits) Prerequisites: GEN 200 and COMM 215

GLG 220 Physical Geology

This course will introduce the key concepts of geology by examining the earth and the processes that take place within it. Topics will include historical geology, rocks and minerals, plate tectonics, igneous activity, mass wasting, weathering and erosion systems. (3 credits) Prerequisites: GEN 200 and COMM 215

SCI 256 People, Science, and the Environment

This in-depth environmental science course examines how people use science to understand how they relate to the environment. The course explores relationships between people and ecosystems and the science behind how ecosystems work. It reviews the historical development of the environmental movement, interactions between humans and natural ecosystems, and more specifically, the role of a growing population and associated pressures on natural resources. This course further examines how economics, natural systems, and conservation are interrelated. The many forms of pollution as well as types of energy resources are addressed. This course challenges students to consider the impact of lifestyle choices on environmental sustainability. (3 credits) Prerequisites: GEN 200 and COMM 215

BIO 280 Conservation Biology

This course will examine the concepts and issues related to the conservation of biodiversity. Topics will include the impact of society on plants and animals, aquatic and terrestrial ecosystems, extinction, and genetic diversity. (3 credits) Prerequisites: GEN 200, COMM 215, and BIO 101

Lower Division Elective courses — 3 credits

Selected from the courses below

SCI 209 Oceanography

This course examines the links between the evolution of earth and water masses. Students will focus on the physical, chemical, biological and geological aspects of the ocean processes. (3 credits) Prerequisites: GEN 200 and COMM 215

GEO 215 Geography

This course will examine the key concepts of geography and the interactions between human life and the environment. Topics will include population, urbanization, economic and cultural landscapes, physical landscapes, and world climate. (3 credits) Prerequisites: GEN 200 and COMM 215

BIO 240 General Biology

This course will provide an in-depth look into the principles of biology. Topics will include molecular biology, cellular structure and function, genetics, evolution, organisms, and populations. (3 credits) Prerequisites: GEN 200, COMM 215, and BIO 101

Bachelor of Science with a Concentration in Environmental Science

ECO 272 Fundamentals of Economics

This course provides students with the fundamental understanding of economic theory, concepts, terminology, and policies. Economic decision-making related to domestic and international markets will be explored. (3 credits) Prerequisites: GEN 200 and COMM 215

Required Upper Division courses

All required Lower Division courses are prerequisites

BIO 315 Ecology and Evolution

This course provides the fundamental principles of ecology and evolution. Students will focus on populations and communities, adaptation, and other factors that affect organisms. (3 credits)

ENV 320 Environmental Law

This course explores the administrative regulations and policies that are requisite to the management of health and safety in the workplace. Federal, state, and local policies will be examined. (3 credits)

SCI 362 Environmental Issues and Ethics

This course applies scientific, philosophical, economic, and ethical principles to current and future environmental issues. Students will analyze the cumulative impact of human activities on global ecosystems, as well as responsibilities to the natural world, in terms of the complex interrelationships humans have with their environment. (3 credits)

ECO 370 Environmental Economics

This course applies the theoretical economics tools to environmental issues. Special emphasis will be devoted to analyzing the role of public policy regarding the economy and the environment. (3 credits)

ENV 410 Environmental Toxicology

The purpose of this course is to provide the fundamental knowledge of the effects of environmental chemicals on living systems, and the toxic responses of the human and plant systems. Students will discuss risk, ethics, and social responsibility with regard to environmental toxicology. (3 credits)

ENV 420 Environmental Risk Assessment

This course provides an overview of the basic concepts of human and ecological risk assessment. Significant case studies will be used to illustrate the assessment process. (3 credits)

Upper Division Elective courses — 3 credits

Selected from the courses below

ENV 315 Global Change

This course will examine the impact of human activity on the environment. Students will examine a variety of environmental issues influenced by human activity, including the development and impact of global climate change on the earth. (3 credits)

ENV 310 Environmental Management

This course examines environmental problems from a local, national, and international perspective. Federal legislation will be reviewed on air pollution and water quality. Students will be introduced to control techniques for treating air and water, and the emerging environmental issues such as global climate changes, bioterrorism, organic pollutants, and industrial ecology. (3 credits) Prerequisites: ENV 320, SCI 362, ECO 370, ENV 420, and all required lower division courses

ENV 330 Global Environmental Health

This course explores the impact of industrialization and development on the global environment. Students will be provided an overview of scientific and policy issues of global environmental health. (3 credits)

ENV 430 Environmental Technology

This course presents students with the current and emerging technologies that are available for the management of the environment. Environmental factors will be examined for the proper selection and application of these technologies. (3 credits)

ENV 431 Public Policy Analysis

This course will examine the fundamentals of public policy analysis to the environment. Students will explore the management of public policy issues related to land use and urbanization, ecosystem preservation, global analysis, and policy making. (3 credits)