

■ Environmental Studies

Program Advisor: Dr. Gail Grabowsky

Environmental Studies Program Description

The major and minor in Environmental Studies (1) teach students the many interconnected components of environmental issues, (2) clarify the ethics that guide decision-making processes pertaining to environmental issues, (3) enable students to experience environmental activities, research, policy and professions first-hand, and (4) prepare students for environmental careers and graduate or professional schools with environmental emphases.

Students seeking the major in Environmental Studies will acquire the broad-based knowledge required to fully comprehend and successfully problem-solve environmental challenges, work in the environmental industry and run environmental businesses and organizations. The major prepares students for careers in environmental: service, science, business, communications, consulting, ethics, health, law, policy, as well as careers in the ever-growing government and non-profit environmental sectors.

Environmental Studies Program Mission Statement

Chaminade University is a Marianist institution committed as an extension of Marianist values to producing local, state, national and international servant-leaders adept at the multidisciplinary acts of understanding, communicating, ameliorating and preserving or developing more harmonious interactions with the environment. The University's major in Environmental Studies produces skilled intellectual pre-professionals considerate of the spiritual, ethical, scientific, economic, political, legal, historical and cultural aspects of environmental issues. Students in the Environmental Studies Program benefit from a learning experience which prepares them for the real world through coursework, fieldwork, research, service and apprenticeship in the community.

Environmental Studies Program Student Learning Outcomes

The Environmental Studies student will demonstrate an understanding of:

1. The central importance of spirituality, ethics and worldviews in the “environmental movement”
2. The importance of the environment in our own health and well being
3. The major environmental issues and their potential solutions
4. Problem-solving skills from diverse disciplines for diverse populations
5. Scientific reasoning and methodology
6. The roles and importance of laws, politics and economics in environmental issues
7. Career opportunities in the environment

Program Requirements

The Bachelor of Science degree in Environmental Studies requires the completion of the general education core in addition to pre-major and major requirements. See the degree requirement section for details.

Pre-minor requirements: ENV 100, GEO 204 and any two of the following three science courses with the corresponding laboratory: CH102 and CH 102L, ENV 201 and ENV201L, ENV 202 and ENV 202L.

Minor requirements: ENV 300, ENV 313/EC313, EN 405 and ENV 400.

Pre-major requirements: ENV 100, CH102 and CH 102L, ENV 201 and ENV 201L, ENV 202 and ENV 202L, GEO 204 and BU 200.

Major requirements: ENV 300, ENV 313/EC313, ENV/RE 431, SOC 317, EN 307, ENV 327, PSY 434, ENV 400 and ENV 485.

Environmental Studies (ENV)

ENV 100 Introduction to Environmental Issues (3)

(formerly *Environmental Design Conference*): An interdisciplinary course in which students are introduced to the ethical issues, tools and techniques involved in environmental problem-solving. Students are presented with a series of real (often Hawaiian) environmental problems which they will investigate, attempt to understand in entirety and devise a solution or solution-strategy for. This hands-on approach will allow students to discover the many disciplines and techniques involved in ameliorating real environmental challenges.

ENV 115 Marine Environmental Science (3)

This course introduces students to the scientific causes and consequences of the current major marine environmental issues. Topics include: effects of global warming on ocean ecosystems, marine pollution, marine debris, oil spills, fisheries exploitation, fisheries by-catch, marine alien species and coral reef degradation. The course focuses on making students aware of the material causes and consequences of each issue as well as the role of science in devising solutions to each issue.

ENV 115 L Marine Environmental Science Lab (1)

This course introduces students to the scientific methodologies used to determine and study the current major marine environmental issues. Issues studied include: global warming, marine pollution, marine debris, oil spills, fisheries exploitation, fisheries by-catch, marine alien species and coral reef degradation. Laboratory exercises are conducted in the field and on the Chaminade campus. Students taking this course will be engaged in field science activities.

ENV 201 Conservation Biology & Ecology (3)

(Formerly *Environmental Science I*):

An introduction to conservation biology issues and goals and the principles of ecology. The course includes consideration of the impacts of human activity on ecosystems and our efforts to ameliorate destructive impacts. Major topics include the effects of industrialization, agriculture, pollution, species introduction and human population growth and development on the health and future sustainability of ecosystems and humans alike. Particular emphasis is placed on island ecosystems.

ENV 201L Conservation Biology & Ecology Laboratory (1)

(Formerly Environmental Science I Laboratory): Students perform laboratory and field research techniques used in conducting conservation biology and ecological research and restoration. Analyses are conducted in the laboratory and in the field. Course must be taken concurrently with ENV 201.

ENV 202 Environmental Physics (3)

A detailed study of matter and energy in our environment and the transformations that they undergo. Thermodynamics and the sources of energy; the uses of energy and the consequences of such uses. Particular emphasis on the environments of island ecosystems such as Hawaii. Crosslisted as PHY 111.

ENV 202L Environmental Physics Laboratory (1)

One three-hour laboratory period per week to accompany ENV 202. Students investigate matter and energy in our environment and the transformations that they undergo in order to learn first hand the application of the relevant physical principles to environmental issues. Activities are conducted in the laboratory and in the field. Course must be taken concurrently with ENV 202. Crosslisted as PHY 111L.

English 102 and COM 101 are prerequisites for all upper division courses

ENV 300 Environmental Policy & Law (3)

An introductory course to environmental policy and law -- its nature, development, flexibility, and growth and to the ethical dimensions surrounding the creation of state, national and international environmental policy and law.

ENV 310 Natural Resource Management: (3)

This course teaches students the skills necessary to use, protect and maintain natural resources so that they may exist perpetually to the benefit of nature and humans alike. Course requires some understanding of biological processes, business methodology, political process and policy applications. Course must be taken concurrently with ENV 310L.

ENV 310L Natural Resource Management Laboratory (1)

This course teaches students the field and intellectual skills necessary to conduct natural resource management in Hawai'i and elsewhere. Skills taught include population growth modeling, resource use

models, population size monitoring, economic and sociological assessment of natural resource value, population protection and restoration field skills. Course must be taken concurrently with ENV 310.

ENV 313: Contemporary Economic Issues (3)

This course provides students an opportunity to develop skills at using economic analysis to understand and consider current issues and challenges facing our society. The focus of the course is on the environmental impact of economic decisions, but the frameworks and tools examined can be applied to a wide range of social issues. Offered fall semester. Prerequisites: EC 202 or ENV 201 and ENV 201L. Cross-listed as EC 313.

ENV 327: Career Development in the Behavioral Sciences (3)

This course examines vocational values, interests, and aptitudes in the identification and development of a career in the Behavioral Sciences, specifically Behavioral Sciences (Sociology, Social Services), Criminal Justice, Environmental Studies, and Psychology. The vital role of a student's academic background is explored relative to creating a goodness-of-fit between the student and the world of work. Students will be introduced to career guidance programs, develop a career personality profile, generate a career road map, and investigate/utilize career development tools and techniques. A broad spectrum of resources will be explored against the backdrop of local, national, and international job market trends, and the goals, interests and abilities of the job seeker. Offered annually in the Fall. Prerequisite: ENV 100. Cross-listed with AN/CJ/GE/PSY/SO

Division Student Learning Outcome

Student will demonstrate an understanding of career development relative to the field of Behavioral Sciences.

ENV 400 Current Global Environmental Issues (3)

This reading-intensive course surveys diverse publications explaining the major environmental threats facing the world today. The aim of the course is to have students become aware of the material as well as socioeconomic causes of environmental

degradation, the detrimental impacts of environmental degradation on humans and the potential solutions to the greatest environmental challenges. Course must be taken in the junior or senior year.

ENV 401 Nature, Culture, Gender and Environmental Policy (3)

This course explores cross-culturally ideas, attitudes, and values about the natural environment. It studies the impacts of philosophies of nature and culture on human perceptions and their roles in the development of environmental policy. The questions of gender roles in the context of nature and culture and its application to the treatment of the environment will be discussed as part of environmental philosophy and policy formation.

ENV 431 Environmental Ethics (3)

Examines religious perspectives on ethical issues within the context of an ecumenical and inter-religious dialogue in the field environmental studies, with particular attention paid to contemporary Catholic ethicists. The goals are to assist students in their study and understanding of the personal and social dimensions of these ethical perspectives and learn effective methods for dealing with relevant ethical issues within environmental studies. Fulfills interdisciplinary course requirement. Cross-listed as RE 431. Offered alternate semesters. Prerequisites: RE 103 or RE 205 or permission of instructor.

ENV 485 Environmental Capstone Experience (3)

This capstone course seeks to integrate and assess the experiences and program learning outcomes of the Environmental Studies major around a real environmental issue that the student actively participates in problem-solving through research and/or service. Each student is required to demonstrate their interdisciplinary understanding and problem-solving competency pertaining to the particular issue they are involved in.