

# ENVIRONMENTAL STUDIES

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## 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

## Student Learning Outcomes and Course Linkages: A student graduating with a bachelor of science in Environmental Studies will be able to...

All ENV310's and other classes no longer in the major/minor/certificate were removed. All ENV331's were changed to ENV 313. All CH103's were changed to CH102. These changes

reflect changes in course numbers and the Program curriculum since the inception of the Program when the learning outcomes were first drafted and linked to courses.]

- **Demonstrate an understanding of the central importance of spirituality, ethics and worldview in the “environmental movement”**
  1. Demonstrate an understanding of diverse environmental ethics and their implications for the treatment of nature [ENV100; ENV201; ENV313]
  2. Demonstrate an understanding of the potential positive role the Judeo-Christian, traditional Polynesian and other worldviews can play in environmental problem solving [ENV100; GEO204; ENV313]
  3. Demonstrate an understanding of the historical role the Western worldview played in “separating” people from nature [ENV100; EN405]
  4. Demonstrate an understanding of how Catholic Marianist values support environmental efforts [ENV313]
  5. Demonstrate Marianist values through environmental service [ENV100; ENV201; ENV400]
  6. Demonstrate a strong conservation ethic [ENV100, ENV201, GEO 204; EN405; ENV485]
  7. Demonstrate “Passion Power” for the environment through activism [ENV100; ENV201; ENV400; ENV485]
  8. Demonstrate an understanding of the spiritual importance of natural resources/biodiversity to diverse peoples [ENV100; ENV313]
  9. Demonstrate an understanding of the history of the environmental movement in the U.S. [ENV100; EN405]
  10. Demonstrate knowledge of the writings of Aldo Leopold, John Muir, Loren Eiseley, Rachel Carson, Lynn White and Garrett Hardin [EN405]
- **Demonstrate problem-solving skills from diverse disciplines for diverse populations**
  1. Demonstrate the ability to take a systems approach to problem solving [ENV100, ENV201, ENV485]
  2. Demonstrate an awareness of the limitations within systems [ENV201; ENV300; ENV301; ENV400]
  3. Demonstrate knowledge of the process of conflict resolution [GEO204; ENV202; ENV300; PSY434]
  4. Demonstrate the ability to discern the difference between fact and opinion [ENV201; ENV202; ENV300]
  5. Demonstrate the ability to take a balanced outlook [ENV100; ENV202; BU242; ENV301]
  6. Demonstrate an awareness of the perspectives and value systems of others [ENV100; GEO204; ENV300; ENV301; ENV313; EN405; PSY434]
  7. Demonstrate an understanding of the role of cultural diversity in creating and problem-solving environmental issues [ENV100; GEO204; COM310; ENV301; ENV400; EN405; PSY434]
  8. Demonstrate cross-cultural communication skills [ENV100; PSY434; through service learning]
  9. Demonstrate the ability to collaborate with others [ENV100, ENV301]
  10. Demonstrate an understanding of the importance of being to supervise and manage people successfully [BU200; PSY434]
  11. Demonstrate the ability Be able to arrive at creative solutions [ENV100; ENV202; EN405; ENV485]
- **Demonstrate an understanding of science and scientific investigation**
  1. Demonstrate an understanding of Earth Systems Science [CH102, CH102L; ENV201, ENV201L; ENV202, ENV202L; GEO204]
  2. Demonstrate an understanding of the major material causes of environmental degradation [CH102, CH102L; ENV201, ENV201L; ENV202, ENV202L; GEO204]

3. Demonstrate an understanding of the importance of biodiversity to the functioning of the Earth System [ENV201, ENV201L; ENV313]
  4. Demonstrate an understanding of GIS mapping techniques [GEO204]
  5. Demonstrate an understanding of the role of GIS maps and mapping in environmental problem solving [ENV 201; GEO 204]
  6. Demonstrate the ability to conduct statistical analyses pertinent to environmental problem solving [SOC317]
  7. Demonstrate an understanding of the principles of conservation biology [ENV201]
  8. Demonstrate knowledge of Hawaiian ecosystems and their components [ENV201; ENV201L]
  9. Demonstrate an understanding of the major taxonomic groups [ENV201, ENV201L]
  10. Demonstrate knowledge of the major threatened Hawaiian ecosystems and taxonomic groups [ENV201; GEO204]
  11. Demonstrate environmental field skills [CH102L; ENV201L; ENV202L]
  12. Demonstrate adequate physical conditioning to conduct field work [via service learning]
  13. Demonstrate the ability to monitor terrestrial and aquatic ecosystems [CH102L; ENV201L]
  14. Demonstrate general agricultural/crop production knowledge [ENV201; ENV400]
  15. Demonstrate an understanding of the costs and benefits of pesticide, herbicide and fertilizer use [ENV100; ENV400]
  16. Demonstrate an understanding of the potential risks and benefits of bio-engineered crops [ENV100; ENV400]
  17. Demonstrate an understanding of organic, multi-crop, mono-culture and indigenous agricultural techniques [CH102; ENV201; ENV400]
  18. Demonstrate an understanding of the various liquid waste treatment methods [CH102; ENV201]
  19. Demonstrate an understanding of the different types of wastes and disposal methods for each [CH102]
  20. Demonstrate an understanding of the benefits of recycling [ENV202; ENV301; ENV400]
  21. Demonstrate an understanding of the effects each individual has on the environment [ENV201]
  22. Demonstrate the ability to calculate their ecological footprint [ENV201L]
  23. Demonstrate the ability to assess the veracity of information [ENV100; CH102; ENV201; ENV202]
  24. Demonstrate the ability to conduct statistical analyses and use statistical software [SOC317]
  25. Demonstrate the ability to comprehend primary scientific literature [ENV201; ENV202]
  26. Demonstrate an understanding of the varying stringency placed on information presentation [ENV201]
  27. Demonstrate the ability to design a research project [ENV201L; SOC317; ENV485]
  28. Demonstrate the ability to conduct research [ENV201L, ENV202L; SOC 317; ENV485]
  29. Demonstrate an understanding of the role science plays in environmental problem-solving [ENV100; CH102; ENV201, ENV201L; ENV202; ENV202L, GEO204; ENV313]
  30. Demonstrate the ability to put science into common written or spoken language [ENV100; ENV 201L; ENV485]
  31. Demonstrate the ability to write a proposal [SOC317]
  32. Demonstrate the ability to write a scientific research report [CH102L; ENV201L; ENV202L; ENV485]
- **Demonstrate and understanding of the roles and importance of laws, politics and economics in environmental issues**
    1. Demonstrate the ability to name and describe the general purview each of the major environmental acts [ENV300]

2. Demonstrate knowledge of current major environmental justice issues [ENV100; ENV300; ENV400]
  3. Demonstrate an understanding of policy development procedures [ENV300]
  4. Demonstrate an understanding of the often central role of economics in environmental problem-solving [ENV301; ENV400]
  5. Demonstrate an understanding of some of the notable actual and proposed economic solutions to environmental issues [ENV301]
  6. Demonstrate an understanding of the role economics can/has played in generating environmental issues [ENV100; ENV301]
  7. Demonstrate an understanding of economic steady-state as well as growth models [ENV100; ENV301]
  8. Demonstrate an understanding of microeconomic principles [BU200]
  9. Demonstrate knowledge of the major socioeconomic issues that impact environmental issues [ENV301; ENV400; PSY434]
  10. Demonstrate an understanding of the economic challenges of recycling [ENV202; ENV301; ENV400]
  11. Demonstrate knowledge of the economics of urban infrastructure [ENV301]
  12. Demonstrate knowledge of the community planning processes [ENV300]
  13. Demonstrate knowledge of natural resource management [ENV100]
  14. Demonstrate knowledge of the economic values of natural resources [ENV301]
  15. Demonstrate knowledge of the economic values of biodiversity [ENV201]
  16. Demonstrate natural resource management field skills [ENV201L]
  17. Demonstrate an understanding of the role of politics in the environment [ENV100; ENV300; ENV400; ENV400]
  18. Demonstrate knowledge of the federal and state governmental agencies involved in the environment [ENV100; ENV300; ENV400]
  19. Demonstrate an understanding of the complexities of international environmental politics and lawmaking [ENV100; ENV300; ENV400]
  20. Demonstrate the ability to lobby/advocate via speech and writing [ENV100; COM310; EN405]
- **Demonstrate an understanding of the major environmental issues and their potential solutions**
    1. Demonstrate the ability to identify and describe the major environmental threats to human health [ENV 100; CH102; ENV400]
    2. Demonstrate the ability to identify and describe the major threats to the health of global ecosystems [CH102; ENV201; ENV201; ENV400]
    3. Demonstrate an understanding of the major socioeconomic and political causes of environmental issues [ENV301; ENV300; ENV400]
    4. Demonstrate an understanding of the environmental threats of urban sprawl [ENV400]
    5. Demonstrate an understanding of the complexity of environmental issues [ENV100]
    6. Demonstrate an understanding of the most current and pressing environmental issues in Hawaii and Oceania [ENV201; GEO204; ENV3XX; ENV400]
    7. Demonstrate an understanding of the role of non-governmental organizations in the process of environmental problem-solving [ENV100; through service learning]
    8. Participate in a “grass roots” effort conducted by NGO’s [through service learning]
    9. Demonstrate knowledge of some of the proposed solutions to each of the major global and local environmental issues [CH102; ENV201; ENV202; GEO204; ENV400]
    10. Demonstrate knowledge of “green” urban design [ENV201]
  - **Demonstrate an understanding of the importance of the environment in our own health and well being**
    1. Demonstrate an understanding of how we are all directly and indirectly dependant on healthy nature for survival [CH102; ENV201]

2. Demonstrate an understanding of the importance of nature experiences for our development [ENV100; ENV 331]
3. Demonstrate an understanding of the role of building design to our well being [GEO 204]
- **Demonstrate an understanding of how to seek a career in the environment**
  1. Demonstrate the ability to find environmental scholarships/internships while an undergraduate [through Enviro Studies Office]
  2. Gain experience working with diverse environmental professionals [via service learning; ENV485]
  3. Gain a number of environmental professional contacts in Hawaii [ENV100; ENV201; ENV300; ENV485]
  4. Demonstrate an understanding of what college experiences are valued by environmental employers [ENV100]
  5. Demonstrate an understanding of the varieties of environmental career opportunities [ENV100]
  6. Demonstrate an understanding of how to look for a job in the environment [ENV100; ENV485]
  7. Demonstrate an understanding of what kinds of graduate environmental programs there are [ENV485]
  8. Demonstrate an understanding of how to properly ask for a letter of recommendation [ENV485]
  9. Demonstrate an understanding of how to prepare a resume for employment [ENV485]
  10. Demonstrate an understanding of how to properly apply for a job in the environment/graduate school [ENV485]
  11. Demonstrate an understanding of how to successfully interview for a job [Chaminade Career Center]