

Instructional Program Review 2006-2007
Environmental Studies

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1. Program Description and Scope:

Environmental issues are complex. They are caused by people, understood through science, mitigated by laws passed by politicians, who are influenced by business, disproportionately affect the health of the poor, destructive of nature, and will be solved through education and advances in technology. The environmental studies program at Ohlone College should reflect the interdisciplinary nature of environmental issues by addressing the connections between such disparate fields as sociology, natural science, business, health and technology. A SUSTAINABLE future requires the vision to see all of these facets. Sustainability will be a theme unifying the different disciplines.

The instructional program will include academic courses from a range of disciplines (business, political science, biology, chemistry, health and technology), laboratories that emphasize identification and analysis of environmental issues, outdoor field experience, and internships with industry, government, or other employer of environmental studies graduates (NGO's, regulatory agencies, etc). In addition, environmental studies majors AND instructors will be required to measure their own ecological footprint and reduce their impact through living more sustainably.

The program is housed at the Newark Campus where the buildings and grounds are the essence of sustainable technology and progress. The program will take advantage of these resources and use the campus itself to teach students about sustainable design, materials, architecture, technology, gardening, etc. Whenever possible, innovative methods of teaching will be used to promote critical thinking, independent study, experiential learning, and technology.

Students and citizens educated about the environment will lead the way towards a sustainable society. They will possess the knowledge, skills, and understanding of environmental issues to deeply care for and work toward solving many of the environmental challenges of the 21st century. Environmental studies majors will possess the tools to be sustainably-minded, forward-thinking, environmentally and socially conscious individuals capable of educating others in the community by example or through actions.

The environmental studies program will have an impact on the college and surrounding community. Many courses in the program will provide similar content and training as typical general education courses and will therefore be available to any students earning degrees. The environmental and sustainable themes will therefore reach students from the greater Ohlone student population. In addition the message of sustainability and environmental knowledge will inevitably spread to other students, faculty, and staff creating a culture of sustainability and eco-

consciousness. The highly diverse populations of Fremont and Newark will benefit from citizens, particular younger people, better educated about the environment.

2. Relationship to Ohlone College Mission and Goals:

Environmental studies at Ohlone will promote the triple bottom line: Equity, Environment, and Economics

These broad and diverse themes fit well with the Ohlone College goals.

Equity: Promotes an appreciation for and understanding of diverse races and cultures by examining how different groups are impacted by environmental issues and how different groups view and interact with their environment. Diverse methods of learning will be promoted in the program (field work, laboratories, practical training, classroom, technology enhanced) which fits with the Learning College Model.

Economics: Innovation and technology are the solutions to many environmental problems. Students will recognize the need for new technology and understand the necessity. With a broad background in how the environment functions they will be equipped to innovate and use their skills to contribute to the economy and to the emerging environmental industries of Silicon Valley.

Environment: Students will be campus leaders of environmental sustainability.

3. Student Learning Outcomes:

Student learning outcomes emphasize the most important skills and knowledge people with environmental degree should possess. A broad, interdisciplinary, range of knowledge is needed, as well as practical methods of applying solutions to environmental problems. SLO's also emphasize the connections between different fields of study.

The student will:

- A. Recognize the social, economic, and environmental impacts of humans on the earth
- B. Apply an understanding of science and ecological principles to modern life so students may critically analyze and understand information affecting the environment
- C. Describe the effects of current, past, and future energy and resource use, and compare and contrast possible solutions to environmental problems
- D. Evaluate environmental policies, laws, and regulations, their value, implementation and effects
- E. Consider the inherent environmental, social and economic outcomes of living sustainably on current and future generations.
- F. Gain experience with a variety of environmental field and laboratory techniques that will emphasize different fields of environmental studies.
- G. Participate in an internship in some field of environmental studies/science to gain practical experience and employment

4. Methods of assessing SLO's:

- A. Measurement of ecological footprint at the beginning of the program/ course and develop Sustainability Goals for each individual student. Re-measure ecological footprint at the end of the program and determine which goals were achieved and which need further effort
- B. Short answer, multiple choice, and true/false questions on midterms and final exams
- C. For each lab/field course students will take a practical to demonstrate knowledge and competence in various fundamental skills.
- D. Questionnaire/ survey to employers of student interns on the performance, knowledge, and skills of the student and future skills that may be important to possess.
- E. Post-graduate surveys to determine where graduates are employed, in what fields, and if they feel the program gave them the necessary skills to do their jobs.

5. Assessment of Program Through Review of the Teaching Learning Process:

- A. As environmental issues, politics, society, etc. are dynamic, so too should be any program that examines these subjects. Courses will be assessed for relevance, appropriateness and currency of student learning outcomes to today's issues.
- B. Teaching on a green campus will be new to many of the instructors. Teaching methods and techniques will be analyzed and experimental techniques assessed for effectiveness
- C. Feedback from the growing environmental industry and employers will allow flexibility and customization of curriculum to fit current or future needs
- D. Since the program is new, after the first several years, an assessments of how assignments, criteria, and standards for sequenced courses relate to one another and the overall goals of the program will be discussed and changed if necessary.
- E. Data will be kept to assess trends in student scores over time, including strengths and weaknesses in student scores.

6. Assessment of Program Improvement Since Previous Program Review:

This program is new so there was no previous program review