

Oceanography (OCN)

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OCN 101 : Introduction to Marine Option Program

Credits: 1

Class Hours: 1 lecture

Prerequisites:

Qualified for ENG 100.

Description:

This course provides information to students interested in learning more about organizations and projects related to ocean and freshwater systems. The course will review the requirements of the Marine Option Program (MOP) Certificate and explore opportunities for internships, research projects and careers dealing with water environments. The course will also present guidelines in proposal writing, project implementation, data collection and interpretation, report preparation, and formal project presentation.

Semester Offered: Fall, Spring

Course Student Learning Outcomes (CSLOs):

1. Compose a detailed project proposal following course guidelines.
2. Identify internships, research projects, or other projects of interest.

OCN 120 : Global Environmental Challenges

Credits: 3

Class Hours: 3 lecture

Prerequisites:

Qualified for MATH 100 or concurrent enrollment in MATH 75X.

Description:

This course focuses on scientific approaches to evaluating human-caused environmental challenges and their potential solutions.

Semester Offered: Fall, Spring

Designation: Diversification: Physical Sciences – DP

Course Student Learning Outcomes (CSLOs):

1. Solve very basic problems involving physics and chemistry of Earth systems.
2. Identify value judgments inherent in different choices in addressing or failing to address global environmental challenges.
3. Apply scientific principles and reasoning to critically evaluate proposed explanations for global environmental challenges.
4. Apply scientific principles and methods to describe natural Earth systems and human impacts on the environment.
5. Compare impacts of potential solutions to global environmental challenges.

OCN 199V : Directed Study

Credits: 1-2

3 hours (1 credit), 5 hours (2 credits)

Prerequisites:

Approval of instructor.

Recommended:

Completed OCN 101 or SCI 199V.

Comments:

May be repeated for a maximum of 50 credits.

Description:

Students in this course will practice strategies, methods, and techniques for successful project completion. Students and the instructor will agree on a project before the start of the course. Reading and research in any area of Oceanography under the direction of a faculty member. Students are encouraged to present their findings at the annual University of Hawai'i system-wide Marine Option Program Student Symposium.

Semester Offered: Fall, Spring

Course Student Learning Outcomes (CSLOs):

1. Demonstrate dedication and competence necessary to successfully complete a project or at least make significant progress toward successful completion of a project.

OCN 201 : Science of the Sea

Credits: 3

Class Hours: 3 lecture

Prerequisites:

Qualified for ENG 100 and MATH 82X.

Description:

This is a survey course of the ocean involving the study of the geological, physical, chemical, and biological properties of the ocean. A number of subjects are studied to include the ocean basin, seawater properties, currents, waves, tides, marine organisms, and the ecological principles of humans and the sea.

Semester Offered: Fall, Spring

Designation: Diversification: Physical Sciences – DP

Course Student Learning Outcomes (CSLOs):

1. Apply the scientific theory of plate tectonics to describe the origin, evolution, and features of ocean basins and continents.
2. Explain the physical and chemical properties of seawater important for understanding the role of our oceans for climate and life on Earth.
3. Explain the role of the ocean in the climate system.
4. Explain the physical factors which influence life in the oceans.