

JAMESTOWN COMMUNITY COLLEGE
State University of New York

INSTITUTIONAL COURSE SYLLABUS

Course Title: Introduction to Oceanography

Course Abbreviation and Number: GLG 1810

Credit Hours: 3

Course Type: Lecture

Course Description: Students will learn basic oceanographic concepts including the physical, chemical, geological, and biological processes operating in the oceans, how they interact, and their effects on terrestrial systems. Additional topics include mankind's relationship with the sea; the resources we receive from it, the impacts we have on it, and how it infiltrates our culture. Demonstrations and hands-on activities will reinforce lecture content.

Prerequisite/Corequisite: ENG 1510; **Eligibility:** MAT 1590.

General Education Requirements Met

SUNY

Natural Sciences

JCC

Scientific Reasoning

Student Learning Outcomes:

Students who demonstrate understanding can:

1. Critically evaluate and analyze contemporary environmental problems at the interface of nature, human institutions, and scientific study.
 2. Analyze ethical dilemmas raised by marine science, society, and technology, attempt to identify personal values that affect how one thinks about these dilemmas, and consider diverse perspectives in the process. (VEDP)
 3. Demonstrate an understanding of the physical, chemical, geological and biological processes operating in the oceans, how they interact, and their effects on terrestrial systems (climate, coastal habitats, etc.).
 4. Demonstrate the ability to interpret maps of the sea and a basic understanding of the technologies used to create these (i.e., the geographic positioning system, sea floor bathymetry).
 5. Demonstrate a basic understanding of the history of the oceans (geologic history, origins of life, early navigation, etc.)
 6. Demonstrate knowledge of the diversity, classification, general physiology and basic ecology of marine organisms.
 7. Demonstrate an understanding of the methods scientists use to explore natural phenomena, including observation, hypotheses development, measurement and data collection, experimentation, evaluation of evidence, and employment of data analysis or mathematical modeling. [SUNY Gen Ed – Natural Sciences]
 8. Application of scientific data, concepts, and models in one of the natural sciences. [SUNY Gen Ed – Natural Sciences]
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Topics Covered:

- History of human navigation upon the ocean and of oceanography
 - The Scientific Method, origins
 - Plate tectonics, continental drift and origin of ocean basins
 - Marine Provinces
 - Marine Sediments
 - Water and Seawater
 - Air Sea Interaction
 - Ocean Circulation
 - Waves and Water Dynamics
 - Tides
 - Coasts
 - The Coastal Ocean
 - Marine Life and the Marine Environment
 - Taxonomy and Adaptations Exercise
 - Biological Productivity and Energy Transfer
 - Animals of the Pelagic Environment
 - Animals of the Benthic Environment
 - Environmental Issues in Oceanography
 - The Oceans and Climate Change
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Information for Students

- Expectations of Students
 - [Civility Statement](#)
 - [Student Responsibility Statement](#)
 - [Academic Integrity Statement](#)
- [Accessibility Services](#)

Students who require accommodations to complete the requirements and expectations of this course because of a disability must make their accommodation requests to the Accessibility Services Coordinator.

- [Get Help: JCC & Community Resources](#)
- [Emergency Closing Procedures](#)
- Course grade is determined by the instructor based on a combination of factors, including but not limited to, homework, quizzes, exams, projects, and participation. Final course grade can be translated into a grade point value according to the following:

A=4.0	B+=3.5	B=3	C+=2.5	C=2	D+=1.5	D=1	F=0
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- Veterans and active duty military personnel with special circumstances (e.g., upcoming deployments, drill requirements, VA appointments) are welcome and encouraged to communicate these to the instructor.

Effective Date: Fall 2023