



蘇州大學
Soochow University

GEO 255 Oceanography

Summer 2024

Course Credits: 4

Contact Hours: 56 hours

Instructor: TBA

Email:TBA

COURSE OBJECTIVES

This course serves as an introduction to fundamental concepts in oceanography, covering key topics such as plate tectonics, marine sediments, physical and chemical properties of seawater, ocean circulation, air-sea interactions, waves, tides, nutrient cycles, marine biology, and environmental issues relevant to the marine environment. Students will gain a foundational understanding of oceanographic processes and their significance in shaping Earth's oceans and influencing global systems.

Upon Completion of this Course, students will be able to:

1. Demonstrate an understanding of basic oceanographic concepts, including plate tectonics, ocean circulation, and marine biology;
2. Analyze the physical and chemical properties of seawater and their influence on marine ecosystems;
3. Evaluate the role of air-sea interactions, waves, and tides in shaping coastal environments;
4. Examine nutrient cycles in the ocean and their importance for marine productivity;
5. Assess environmental issues affecting the marine environment and potential mitigation strategies.

PREREQUISITES

GEO 227 Introduction to Earth Systems

GRADING



Grades will be determined by accumulating points, with 100 points being the maximum, as follows:

ITEM	POINTS
5 Assignments	25 Points
2 Quizzes	20 Points
Midterm Exam	25 Points
Final Exam	30 Points
Total	100 Points

Late submissions will be graded at the end of the course. Grades will be assigned according to the following rule:

$A \geq 90 > B \geq 80 > C \geq 70 > D \geq 60 > F$.

We reserve the right to make adjustments to the overall grading policy.

COURSE MATERIALS

Required Texts:

Invitation to Oceanography, Paul R Pinet, Jones & Bartlet, Sudbury MA.

Recommended (Optional) Texts or Other Materials:

None

COURSE TOPICS

MODULE	TASKS
Module 1	Topics: Topic 1: The Growth of Oceanography Topic 2: The Physiography of the Ocean Floor Topic 3: Seafloor Spreading Topic 4: Global Plate Tectonics Assessments: Assignment #1



Module 2	Topics: Topic 5: Sediment in the Sea Topic 6: Sedimentation in the Ocean Topic 7: The Properties of Seawater Topic 8: Chemical and Physical Structure of the Oceans Assessments: Assignment #2 Quiz #1
Module 3	Topics: Topic 9: Atmospheric Process Topic 10: Surface Ocean Currents Topic 11: Deep-Ocean Circulation Topic 12: Waves in the Ocean Assessments: Assignment #3 Midterm Exam
Module 4	Topics: Topic 13: Tides Topic 14: Marine Ecology Topic 15: Biological Productivity in the Ocean Topic 16: The Dynamic Shoreline Assessments: Assignment #4 Quiz #2
Module 5	Topics: Topic 17: Coastal Habitats Topic 18: The Ocean's Resources Topic 19: The Human Presence in the Ocean Topic 20: Global Climate Change and the Oceans Assessments: Assignment #5 Final Exam

ATTENDANCE

1) Class attendance is required. Missing classes without permission will lead to decrease in overall grade.

Missing less than two classes: no penalty.

Missing more than two classes: 7% will be taken off from the overall grade.

If the instructor reports a student's frequent missing of class to the Soochow



University Academic Administration Office, the student might get a written warning and might be prohibited from attending final exam.

2) Participants in this course are expected to arrive in class promptly and adequately prepared. The primary objective of this course is to critically engage with the readings and the subject matter. Therefore, course participants are expected to have completed the reading prior to class and prepare thoughtful reflections/commentaries to share with fellow colleagues.

LEARNING REQUIREMENTS

- 1) Late assignments are not acceptable and are subjected to grade deductions.
- 2) Assignments submitted in the wrong format will be counted as not submitted.
- 3) Failure to submit or fulfill any required course component results in failure of the class.
- 4) Make-up for midterm and final exams only with valid excuses, as defined by the University.
- 5) In order to earn a Certificate of Completion, participants must thoughtfully complete all assignments by stated deadlines and earn an average quiz score of 50% or greater.

TECHNOLOGY POLICY

The use of electronic devices in class is distracting, both for the user and for the rest of the class. Only non-programmable calculators can be used in the tests and exam. Any attempts to use cell phones and other electronic communication devices will be seemed as cheating. Laptops are discouraged, unless you use them for activities DIRECTLY related to the course (eg., note taking, reading course documents).

ACADEMIC INTEGRITY POLICY

Soochow University highly values the academic integrity and aims to promote the academic fairness, honesty and responsibility. Any academic dishonesty behaviors and any attempts to cheats and plagiarism will be reported to the university administration office. A written warning and the relevant penalties will be imposed. The record might be shown on the official university transcript.



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DISABILITY ACCOMMODATION

Soochow University is committed to maintaining a barrier-free environment so that students with disabilities can fully access programs, courses, services, and activities at Soochow University. Students with disabilities who require accommodations for access to and/or participation in this course are welcome.

Note:

Please contact the University Administrative Office immediately if you have a learning disability, a medical issue, or any other type of problem that prevents professors from seeing you have learned the course material.