

Course Description:

This course provides an overview of the fundamental concepts of oceanography, including the geological, physical, chemical, and biological processes of the world's oceans. Students will explore the role of oceans in Earth's climate system, marine ecosystems, and human-ocean interactions.

Course Objectives:

By the end of the course, students will be able to:

- Describe the origin and structure of ocean basins.
- Understand oceanic physical processes such as currents, waves, and tides.
- Explain the chemical properties of seawater and oceanic biogeochemical cycles.
- Discuss marine ecosystems and biodiversity.
- Analyze human impacts on the marine environment.

Prerequisites:

None (basic high school science recommended)

Textbook (Recommended):

- *Essentials of Oceanography* by Alan P. Trujillo and Harold V. Thurman (latest edition)

Weekly Topics:

Week	Topics
1	Introduction to Oceanography & History of Exploration
2	The Origin and Structure of the Earth and Oceans
3	Plate Tectonics and the Ocean Floor
4	Ocean Sediments and Marine Resources
5	The Properties of Seawater
6	Ocean-Atmosphere Interactions (Weather and Climate)
7	Ocean Currents and Circulation
8	Waves, Tides, and Coastal Processes
9	Marine Life and Primary Production
10	Marine Ecosystems (Open Ocean, Coastal, Deep Sea)
11	Human Impacts: Pollution, Fisheries, Climate Change
12	Ocean Policy and Marine Conservation
13	Review and Special Topics

Week	Topics
14	Final Exam

Assessment:

- Quizzes (20%)
- Midterm Exam (20%)
- Assignments and Homework (20%)
- Final Exam (30%)
- Participation (10%)

Course Policies:

- Attendance is expected.
- Late assignments will incur a penalty unless prior arrangements are made.
- Academic honesty is strictly enforced.

Important Dates:

- Midterm Exam: Week 7
- Final Exam: Week 14
- Assignment deadlines will be posted in the course portal.