

Ocean Observing

Distance course

CRN: 40463

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Textbook:

- Online Ocean Studies (including Investigation Manual). Education Program, American Meteorological Society, 2005.

Outline

The President's Commission on Ocean Policy has recommended the immediate implementation of the Integrated and Sustained Ocean Observing System (IOOS) for the United States. It is envisioned that IOOS will be akin to the National Weather Service and will be designed to provide real-time oceanographic data, services, and products (<http://www.ocean.us>). The NSU OC Master's Level Certificate Program in Ocean Observing is designed to meet the anticipated demand for specifically trained oceanographic specialists. The *Ocean Observing* course sets the stage for this new program. It is intended to give students a broad view to how the physical and biological factors are governing the distribution of the marine life and how the ocean influences climate variability. Human activities impact the orderly functioning of the ocean (and other components of the Earth system) by altering cycling rates and disturbing the equilibrium of biochemical cycles. Students will learn how society is attempting to minimize these impacts, remediate past damage, and avoid future problems. Answers to these and other questions require observational data on the ocean's properties and processes.

Course Syllabus

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|-------------------------------------|--------|
| 1. Ocean in the Earth System | Quiz 1 |
| 2. Ocean Basins and Plate Tectonics | Quiz 2 |
| 3. Properties of Ocean Water | Quiz 3 |
| 4. Marine Sediments | Quiz 4 |
| 5. The Atmosphere and Ocean | Quiz 5 |
| 6. Ocean Currents | Quiz 6 |
| 7. Ocean Waves and Tides | Quiz 7 |

Midterm Exam

8. The Dynamic Coast	Quiz 8
9. Marine Ecosystems	Quiz 9
10. Life in the Ocean	Quiz 10
11. The Ocean, Atmosphere and Climate Variability	Quiz 11
12. The Ocean and Climate Change	Quiz 12
13. The Future of Ocean Science	Quiz 13
14. Ocean Stewardship	Quiz 14
15. Problems and Policy	Quiz 15

Final Exam

Grades

	%
Quizzes	10
Forum Discussions	30
Mid-Term Exam	20
Term Paper:	20
Final Exam:	20
Total	100%

Quizzes

15 multiple-choice quizzes (the first training quiz will not be included in the final grade)
Only 10 (best) quizzes will be used for grading.

Midterm Exam

Multiple-choice, based on Chapters 1 to 7.

Final Exam

Multiple-choice based on Chapters 8 to 15.