

Introduction to Oceanography

Course Requirements:

This course is an introductory approach to major concepts in oceanography. This course will include Global Climate Change as a major theme in ocean and estuarine sciences. It is up to the learner to read all materials, review all questions and practice problems in the text. The course is **not** all lecture material, in that it also includes text assignments and readings. It is up to you, the learner, to ask questions, read the text and complete major projects.

1. Grading will be a combination of four major unit evaluations, coupled with a major class research project due on January 20, 2011. It will be a neat project finalized as a documentary and poster.

2. Journaling will be very important! You will maintain your journal and they will be checked every month by myself or through peer review. Your journal will be turned in the end of the course as part of the course requirement. Your journal will be for notes, field pictures, guest lecture notes, field trip notes and will include your reflections.

3. Another requirement are two major journal reports (between 2 – 3 pages) , **both written and oral** from the following sources related to ocean sciences and Global Climate Change: [Applied Ocean Research](#), [Aquatic Ecology](#), [Aquatic Geochemistry](#), [Botanica Marina](#), [Bulletin of Marine Science](#), [Canadian Journal of Fisheries and Aquatic Sciences](#), [Coastal Engineering](#), [Continental Shelf Research](#), [Coral Reefs](#), [Deep Sea Research Part I: Oceanographic Research Papers](#), [Deep Sea Research Part II: Topical Studies in Oceanography](#), [Dynamics of Atmospheres and Oceans](#), [Estuarine, Shelf, Coastal Science](#), [Fisheries Management & Ecology](#), [Fisheries Oceanography](#), [Glaucus](#), [Geo-Marine Letters](#), [Helgoland Marine Research](#), [ICES Journal of Marine Science](#), [International Journal of Salt Lake Research](#), [The Journal Atmosphere-Ocean](#), [Journal of Experimental Marine Biology and Ecology](#), [Journal of Marine Environmental Engineering](#), [Journal of Marine Systems](#), [Journal of Oceanography](#), [Journal of Paleolimnology](#), [Journal of Plankton Research](#), [The Journal of Shellfish Research](#), [Limnology and Oceanography](#), [Marine Biology](#), [Marine Chemistry](#), [Marine Ecology](#), [Marine and Freshwater Behaviour & Physiology](#), [Marine and Freshwater Research](#), [Marine Geology](#), [Marine Geophysical Researches](#), [Marine Micropaleontology](#), [Marine and Petroleum Geology](#), [Marine Pollution Bulletin](#), [Marine Technology Society Journal](#), [Molecular Marine Biology and Biotechnology](#), [North Sea Monitor](#), [Ocean and Coastal Management](#), [Ocean Engineering](#), [Oceanologia](#), [Oceanus](#), [Progress in Oceanography](#).

4. You will write an individual research paper on the topic related to the project by November 3, 2010. The paper must include at least 6 pages of body text (not title page, charts, reference pages, etc...). It should be in APA format. Topics will be approved by me in early October.

5. There will be three formal laboratories that will require full laboratory write-ups during the semester. Points will be awarded according to detail and completeness (each is worth 50 points). One on: 1) physical and geological oceanography; 2) chemical and physical oceanography; and 3) biological and chemical oceanography. All should include field data, statistical analysis, and relate to Global Climate Change.

6. There will be a midterm and comprehensive final evaluation in the class along with unit evaluations, one take home evaluation various quizzes, and one individual presentation on coasts.

Work hard and do well. This will be a very interactive, field-oriented approach to ocean science.

Course Overview: This course will provide students with good scientific skills and a better understanding of topics in the fields of ocean science. This course will also improve critical thinking. Achievement will be determined through a wide variety of factors as this course is a hands-on approach to oceanography and how it relates to Global Climate Change.

Grade breakdown:

Numerical grades will be assigned in accordance with the MATES grading scale established by the Ocean County Vocational Technical School District. The following will constitute the grades in this course...

Evaluations (written and oral).....	35%
Laboratory and Field Exercises.....	30%
Journals and Journal Reports.....	15%
Major Project.....	15%
Participation.....	05%

Additional Requirements:

Please complete community service hours and forms, which can include any service to the community that involves volunteering time. Some may be linked directly to a field research project when completing aspects on your own time. We may organize an overnight for late October or November at the Lighthouse Center to include a comprehensive sampling and analyzing project.

We also have an exciting project! We are all part of a team that I am excited about working with this semester.

Work hard and do well. This will be a very interactive, field-oriented approach to ocean science and Global Climate Change. This course is designed to give you a great overview of oceanography, its applications, and teaching you skills that will make you successful at the next level and beyond.