

The University of North Carolina Wilmington
Introduction to Oceanography
GLY 150-003, Fall 2009

Instructor: Dr. Jennifer Culbertson, Dobo 116, 962-7521, email: culbertsonj@uncw.edu (**I prefer to be contacted by email, please note in the subject line it is in reference to class**)

Office Hours: Tuesday and Thursday from 11:00-12:00 or by appointment

Term: Fall 2009

Course Catalog Description: An introduction to the geology, physics, chemistry and biology of the ocean; instruments and techniques of oceanography; resources of the ocean.

Location: RL Auditorium

Text: Essentials of Oceanography, 8th Edition, A.P. Trujillo and H.V. Thurman. We will periodically refer to the book in class, so keep it with you at all times (at least at all times in class). Weekly reading assignments must be read **before** the date assigned. Lectures are based on the assumption that this material has been read and the concepts understood. You will be randomly tested on this.

Course Description: This course is intended to give you a general introductory look into the field of Oceanography from a biological, chemical, physical and geological perspective. We will begin by defining what is the ocean, where are all the oceans located and how did we first explore them. Second, we will examine some key geological features of oceans. Further we will learn about the chemical composition of seawater and the interactions between seawater and the air. Third, we will learn about the physics of ocean circulation and waves. Finally we will explore the different biological environments within the ocean, who lives there and what part do they play in the community.

Course Goals: By the end of this course, students will

- 1) Obtain and be able to explain what makes the Ocean unique, including the various facets (Biological, Geological, Physical and Chemical)
- 2) Identify key biological community zones within the ocean
- 3) Identify chemical properties of seawater
- 4) Explain ocean circulation, tide and wave patterns
- 5) Explain the formation of loss of oceanic geological elements

- 6) Understand the concept of Plate Tectonics
- 7) Identify what ocean biological productivity is and how energy is transferred.
- 8) Identify coastal zones and what biological and chemical differences exists between these zones

Attendance Policy: Attendance is the single best thing that you can do to ensure good performance in this class. I will take attendance randomly 10 times during the semester. You are allowed 2 free passes. After that, it will impact your grade. For each additional absence 20 points will be deducted for the total of 400 points **NO EXCEPTIONS.**

Honor Code: Don't break it! The UNCW Honor Code is detailed in your Student Handbook. It is your responsibility to learn it, know it, and follow it.

Personal Electronics Policy: All cell phones, MP3 players, and other personal electronics should be turned off and stowed prior to entering class. Palmtop or laptop computers are permitted when used ONLY for note-taking or other class business. No web surfing will be tolerated. Lap top users should sit in the back row to avoid distracting others. Laptops will be banned from the classroom for the rest of the semester the first time any laptop user is seen engaging in a non-classroom related activity.

Classroom conduct: Treat yourselves, your peers, and instructors with respect. Please feel free to ask questions or state your views in a respectful manner. Please do not speak amongst yourselves while the instructor is lecturing.

Grading

First Exam	20%	100pts
Second Exam	20%	100pts
Third Exam	20%	100pts
Fourth Exam	20%	100pts
Quizzes	20%	100pts
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Total	100%	500pts

- Each exam will be taken primarily from material covered in class, and consist of a mix of multiple choice, true/false questions and short answer
- The fourth exam will not be cumulative. It will be given during the final exam slot (see schedule) for this class.

- If you miss an exam during the semester, **ONE, AND ONLY ONE MAKE-UP EXAM WILL BE GIVEN**. It will be administered right after the fourth exam. Any material covered from the start of the semester up to and including the third exam is fair game for the make-up exam. If you did not miss an exam you may still take the make-up exam and substitute that score for any previous exam score.

- There will be a total of **20** quick quizzes given during the semester. Each quiz is worth a total of 5 points. The quiz material will be on the chapter I will lecture on that day, so please read the material ahead. The quiz will be given within the first 5 minutes of class. If you are late you will not be allowed to take the quiz. There will be no make-up quizzes.

- Final course grades will be assigned based upon the following percentages:

A= 92.9-100 (464.5 pts or higher)

A- = 89.9-92.8 (449.5 – 464 pts.)

B+ = 87.4-89.8 (437 – 449 pts.)

B=82.4-87.3 (412 – 436.5 pts.)

B- = 79.9-82.3 (399.5 – 411.5 pts.)

C+ = 77.4-79.8 (387 – 399 pts.)

C = 72.4-77.3 (362 – 386.5 pts.)

C- = 69.9-72.3 (349.5 – 361.5 pts.)

D+ = 67.4-69.8 (337 – 349 pts.)

D=62.4-67.3 (312 – 336.5 pts.)

D- = 59.9-62.3 (299.5 – 311.5 pts.)

F=<59.9 (299.5 pts. or less)

- ‘Newsworthy Science- is an opportunity for you to solidify your grade. A couple of minutes will be set aside for you to present a current article about an **oceanographic**-related event. Local, national, and international events are welcome. You write up a one page (double-spaced, 12 pt font) summary, referenced properly, and you get **5** pts (extra points) towards your final grade. Each student may present up to 2 times. You are required to present the article in order to get credit. For any given class, no more than 3 students may present (HINT: do not wait until the end of the semester or you will not get to present). The first 3 students to approach me

prior to the start of class will get to present. If you are presenter #3 and presenter #2 read ‘your’ article. Sorry. That’s life in the food chain. This is good incentive to dig a little deeper and find items that are a bit more obscure. Or come prepared with two articles.

POSSIBLE SOURCES FOR ARTICLES:

www.noaa.gov

www.nsf.gov

www.uncw.edu/nurc

www.yahoo.com – news, search ocean or ocean science

www.npr.org –“Science Fridays’

Google: Scientific American
Science
Nature
Science News

Print Sources: New York Times – Tuesdays
Washington Post
Wilmington Star News

Librarian - Peter Fritzler

If you are a person with a disability and anticipate needing accommodations of any type in order to participate in this class, you must notify Disability Services (Westside Hall #1033, 962-7555) provide the necessary documentation of the disability and arrange for the appropriate accommodations. Once these accommodations are approved, please identify yourself to me in order that we may implement these accommodations.

UNCW practices a zero-tolerance policy for violence and harassment of any kind. For emergencies contact UNCW CARE at 962-2273, Campus Police at 962-3184, or Wilmington Police at 911. For University or community resources visit <http://uncw.edu/wrc/crisis.htm>

All members of UNCW’s community are expected to follow the academic Honor Code as stated in the “Student Handbook and Code of Student Life”, and academic dishonesty of any type will not be tolerated. Please be especially familiar with UNCW’s position on plagiarism as outlined on in the UNCW Student Handbook. Plagiarism is a form of academic dishonesty in which you take someone else’s ideas and represent them as your own. Here are some examples of plagiarism:

- a. You write about someone else’s work in your paper and do not give them credit for it by referencing them.
- b. You give a presentation and use someone else’s ideas and do not state that the ideas are the other persons.
- c. You get facts from your textbook or some other reference material and do not reference that material.

Schedule and Assignments (subject to change)

Mtg#	Day	Date	Topic	Readings
1	R	20-Aug	Course Introduction	
2	T	25-Aug	Planet Earth	Ch. 1
3	R	27-Aug	Planet Earth	Ch. 1
4	T	1-Sep	Plate Tectonics	Ch. 2
5	R	3-Sep	Plate Tectonics	Ch. 2
6	T	8-Sep	Marine Provinces	Ch. 3
7	R	10-Sep	Exam #1	Ch. 1-3
8	T	15-Sep	Marine Sediments	Ch. 4
9	R	17-Sep	Marine Sediments	Ch. 4
10	T	22-Sep	Water and Seawater	Ch. 5
11	R	24-Sep	Air-Sea Interaction	Ch. 6
12	T	29-Sep	Air-Sea Interaction	Ch. 6
13	R	1-Oct	Ocean Circulation	Ch. 7
14	R	8-Oct	Ocean Circulation	Ch. 7
15	T	13-Oct	Exam #2	Ch. 4-7
16	R	15-Oct	Waves	Ch. 8
17	T	20-Oct	Tides	Ch. 9
18	R	22-Oct	Shoreline Processes	Ch. 10
19	T	27-Oct	Coastal Ocean	Ch. 11
20	R	29-Oct	Coastal Ocean	Ch. 11
21	T	3-Nov	Exam #3	Ch. 8-11
22	R	5-Nov	Marine Life	Ch. 12
23	T	10-Nov	Marine Life	Ch. 12
24	R	12-Nov	Biological Productivity	Ch. 13
25	T	17-Nov	Biological Productivity	Ch. 13
26	R	19-Nov	Animals of the Pelagic	Ch. 14
27	T	24-Nov	Animals of the Benthic	Ch. 15
28	T	1-Dec	Animals of the Benthic	Ch. 15
			Exam #4	Ch, 12-15

This schedule is subject to change