GEOL 2070: Introduction to Oceanography  
Fall 2008, 4 units

Class Meeting Times: MWF 11:00 - 11:50 AM; Room 3001  
Lab Meeting Times: T 12-1:30 pm, Room 1004

Instructor: Prof. W. Steven Holbrook  
Office: ESB 3016  
Office Hours: M 2-3 pm, W 11 am-noon, Th 10-11 am, or by appt.  
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Brief Course description:

The goal of this course is to introduce you to the properties and processes of the world’s oceans. We will cover the four main aspects of oceanography: geological, physical, chemical, and biological.

Textbooks and Reading Materials:

The required textbook for this class is Essentials of Oceanography, by Alan P. Trujillo and Harold V. Thurman, 9th Edition, published by Pearson/Prentice Hall. The required laboratory book is Laboratory Exercises in Oceanography, by Bernard W. Pipkin et al., 3rd Edition, published by Freeman. These books are NOT available at the University bookstore; I have ordered copies for the class from amazon.com and will distribute them when they arrive; you can pay for them by writing a check to the University of Wyoming. (By ordering them in bulk from amazon.com, I have saved you the shipping fee and $36 off of the publisher’s price.) If you wish to purchase used copies of the book from an online reseller, you may do so on your own. Reading assignments from the books will be given in class.

In addition, lecture notes and supplementary reading materials will be handed out occasionally. You are responsible for reading all handouts and knowing the material in them, unless otherwise instructed in class.

Course Website:

I will maintain a course website, containing course information, lecture files, homework assignments, etc. You can find the website here:  
http://steveholbrook.com/geology_2070/

Course requirements:

Attendance. There is no strict attendance policy for lectures; however, it will be quite difficult to do well on the tests if you haven't attended the lectures. Lab attendance is necessary and required in order to conduct the planned activities and prepare lab reports.

One-on-one conferences. In the week after the first midterm, I will schedule one-on-one conferences (15 minutes) for each of you to meet individually with me. This will give you a chance to ask questions, air complaints, and provide feedback on how you would like to see the class progress. I take the advice and feedback students give me very seriously and strive to incorporate it during the semester.

Grades. Your grade will be based on four main components: quizzes, tests, homework/lab reports, and the final exam. Grades will be weighted in the following proportions:
Quizzes  =  10%
Three tests  =  8, 10, 12% of grade
Comprehensive Final  =  15%
Homework/Lab reports  =  40%
Instructor Discretion  =  5%

Quizzes. Quizzes will be unannounced. They will not be difficult, but to do well you will have to read the assigned readings.

Tests and Final Exam. The three test scores will be weighted according to your performance -- i.e., your lowest score will only count 8%, while your best score will count for 12% of your final grade. Each midterm will only test the material covered since the previous midterm. You may bring one 8.5” x 11” sheet of notes to the exams, but you may write notes on only one side of that sheet.

The final examination will be comprehensive and will be held on Wednesday, Dec. 10, from 10:15-12:15, in Room 318. Please double-check the date and make your end-of-semester travel plans accordingly; no early or make-up final exam will be given without a University-excused absence (as per Unireg 403). Please don’t ask me if you can take the final exam early; the answer will be “no.” You will be permitted to bring one 8.5” x 11” sheet of notes to the final, and you may write notes on both sides of that sheet.

Missed or Late Work. You will only be able to make up missed quizzes, exams, and homeworks if you have a university-authorized excused absence (as per Unireg 713). Work turned in late (without prior consent of the instructor) will be docked points at a rate of 10% per day.

Disabilities. If you have a physical, learning, or psychological disability and require accommodations, please let me know as soon as possible. You will need to register with, and provide documentation of your disability to, University Disability Support Services (UDSS) in SEO, Room 330, Knight Hall, 766-6189, TTY: 766-3073.

Students and Teachers Working Together. The College of Arts & Sciences has produced a document called “Students and Teachers Working Together” that describes expectations of both students and faculty regarding such issues as classroom deportment, academic honesty, attendance, office hours, and advising. I encourage you to download this document from the URL listed below and read it carefully.

http://uwadmnweb.uwyo.edu/a&s/Current/2005Stud&TeachersWorking%20Together(7-29-05).doc

Here is the first paragraph of that document, which describes the basic philosophy I will adhere to:

“At a good university, good student/teacher relationships come from mutual respect, trust, and honesty. Learning takes place when teachers and students treat each other with politeness and civility, rather than with anger, ridicule, or confrontation. Indeed, a classroom conducive to teaching and learning is the right of all University of Wyoming students and faculty, and it is the responsibility of both parties to achieve and maintain it even though specifics will vary from course to course.”

Exam Schedule:

• 19 Sep. (Fri)  Exam 1, Chapters 1-4
• 17 Oct. (Fri)  Exam 2, Chapters 5-8
• 14 Nov. (Fri)  Exam 3, Chapters 9-12
• 10 Dec. (Wed) Final Exam, Chapters 1-15
Course Content:
We will follow the following approximate schedule:

- Week 1: Introduction to Planet Earth
- Week 2: Plate tectonics
- Week 3: The seafloor and surveying
- Week 4: Marine sediments
- Week 5: Physical and chemical properties of seawater
- Week 6: Wind patterns and air-sea interaction; hurricanes
- Week 7: Surface currents; geostrophic currents; Coriolis force
- Week 8: Ocean waves; tsunami
- Week 9: Tides
- Week 10: Beach and shoreline processes
- Week 11: The coastal ocean
- Week 12: Marine life and ocean chemistry
- Week 13: Biological productivity and ocean ecology
- Week 14: Pelagic marine animals
- Week 15: Benthic marine animals