General Information:

Instructors:
- William White  (white@geology.cornell.edu)  4112 Snee; 255-7466
  Office hours: Tues 1:15-2:15 or by arrangement
- Charles Greene (chg2@cornell.edu)  2130 Snee
  Office hours: Tues & Thurs. 1:00 to 2:00 or by arrangement

Teaching Assistants: Louise McGarry (head TA)  2140 Snee Hall, phone: 255-5166, lpm3@cornell.edu
  Rachel Shannon 2162 Snee Hall, phone: 255-2674, rs364@cornell.edu

Grading:  2 Prelims, Final: 100%
Each of the 3 exams has equal value. No make-up exams will be given; instead, the lowest of the 3 exam grades will be dropped.

Text: Sverdrup, Duxbury, and Duxbury, An Introduction to the World's Oceans (8th edition)
The reading assignments below are based on the 8th edition. However, you may also use the 6th or 7th editions.

Class WWW Page:
“http://www.geo.cornell.edu/eas/education/course/descr/EAS154/EAS154home.html”

Schedule

Week 1 (Jan. 24-28)
1. Introduction 1/25 (White)
   Recommended Reading: Sverdrup et al., Chapter 1
2. Origin of the Earth & Its Oceans; Floor of the Oceans 1/27 (White)
   Reading: Sverdrup et al., Chapter 2

Week 2 (Jan 31- Feb 4)
3. Plate Tectonics: Sea Floor Creation & Destruction 2/1(White)
   Reading: Sverdrup et al., Chapter 3.
4. Plate Tectonics: Divergent, Transform, & Convergent Boundaries 2/3 (White)

Week 3 (Feb 7-11)
5. Sediments & Sedimentary Processes 2/8 (White)
   Reading: Sverdrup et al., Chapter 4
6. Sediments & Climate History 2/10 (White)

Week 4 (Feb 14-18)
   Required Reading: Sverdrup et al., Chapter 5.
8. Biological Controls on Seawater Composition 2/17 (Owens)
   Required Reading: Sverdrup et al., Chapter 6.

Week 5 (Feb 21- Feb 25)
9. Geological Controls on Seawater Composition 2/22 (White)
10. Deep Sea Hot Springs and their Ecosystems 2/24 (White)
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Week 6 (Feb 28 - Mar 4)
11. Life as an oceanographer 3/1 (Greene)
12. Waves 3/3 (White)
   Required Reading: Sverdrup et al. Chapter 10.

Week 7 (Mar 7 – 11)
13. Tides 3/8 (White)
   Reading: Sverdrup et al., Chapter 11
14. Prelim Review 3/10 (White)
PRELIM EXAM 1: Evening of Thursday, March 10

Week 8 (Mar 14 - 18)
15. Beaches and Coastal Processes 3/15 (White)
   Reading: Sverdrup et al., Chapters 12
16. Thermohaline Circulation 3/17 (White)
   Reading: Sverdrup et al., Chapter 8

SPRING BREAK (Mar 21-25)

Week 9 (Mar 28- Apr 1)
17. Wind-Driven Circulation 3/29 (Greene)
   Reading: Sverdrup et al., Chapter 9
18. El Nino - Southern Oscillation 3/31 (Greene)
   Reading: Sverdrup et al., Chapter 7

Week 10 (Apr 4- Apr 8)
19. Climate Change I 4/5 (Greene)
20. Climate Change II 4/7 (Greene)

Week 11 (Apr 11- Apr 15)
21. Oceans & Climate 4/12 (Greene)
   Reading: Sverdrup et al., Chapter 7
22. 4/14 Global Patterns of Productivity (Greene)
   Reading: Sverdrup et al., Chapter 14

Week 12 (Apr 18- Apr 22)
23. Marine Food Chains and Secondary Productivity 4/19 (Greene)
   Reading: Sverdrup et al. Chapters 15
24. Microbial Loop 4/21 (Monger)
   Reading: Sverdrup et al. Chapter 16

Week 13 (Apr 25-Apr 29)
25. Ecology of Rocky Shores 4/26 (Greene)
   Reading: Sverdrup et al. Chapter 18
26. Ecology of Coral Reefs 4/28 (Greene)
   Required Reading:Sverdrup et al. Chapter 17

Week 14 (May 2- May 6)
27. Marine Conservation: Whales 5/3 (Clark)
   Required Reading:Sverdrup et al. Chapter 13
28. PRELIM EXAM NO. 2 5/5 (in class)

FINAL EXAM: Thursday, May 19, 3:00-5:30 PM