Week 1 (Jan. 21-25)

1. Introduction: Geography of the World Ocean 1/22 (Greene)
   Recommended Reading: Duxbury et al., Prologue
2. Marine Science Opportunities at Cornell, WHOI video 1/24 (Greene)
   Required Reading: Duxbury et al., Chapter 1

Week 2 (Jan 28-Feb 1)

3. Plate Tectonics 1/29 (Oliver)
   Required Reading: Duxbury et al., Chapter 2.
4. Hydrothermal Vents (NOVA Ridge video) 1/31 (Greene)
   Required Reading: Duxbury et al., Chapter 17, pp. 479-481

Week 3 (Feb 4-8)

5. Waves 2/5 (Monger)
   Required Reading: Duxbury et al. Chapter 9.
6. Coasts, Beaches, and Estuaries 2/7 (Bloom)
   Required Reading: Duxbury et al. Chapter 11.

Week 4 (Feb 11-15)

7. Coastal Processes 2/12 (Bloom)
8. Tides 2/14 (Monger)
   Required Reading: Duxbury et al. Chapter 10.

Week 5 (Feb 18-22)

9. Coastal Processes video, Review for Exam #2 2/19 (Greene, TA’s)
10. Exam #1 (in class) 2/21 (Greene)

Week 6 (Feb 25-Mar 1)

11. Physical Properties of Seawater 2/26 (Owens)
    Required Reading: Duxbury et al., Chapter 4
12. Biological Controls on Seawater Composition 2/28 (Owens)
    Required Reading: Duxbury et al., Chapter 5

Week 7 (Mar 4-8)

13. Thermohaline Circulation: The Ocean Conveyor Belt 3/5 (Greene)
    Required Reading: Duxbury et al., Chapter 6
14. Wind-Driven Circulation (NOVA Hurricane video) 3/7 (Greene)
    Required Reading: Duxbury et al., Chapter 7, 8
Week 8 (Mar 11-15)

15. El Nino -Southern Oscillation, NOVA ENSO video 3/12 (Greene)
   Required Reading: Ocean Expeditions: El Nino, p. 27-42.
   Required Reading: MERCINA (2001)

Week 9 SPRING BREAK (Mar 18-22)

Week 10 (Mar 25-29)

17. The Oceans & Climate: the Greenhouse Effect 3/26 (Greene)
   Required Reading: Duxbury et al., Chapters 7 (p. 201-207)
18. Global Climate Change (Climate Change video) 3/28 (Greene)
   Require Reading: IPCC Report

Week 11 (Apr 1-5)

19. Review for Exam #2 (continue Climate Change video) 4/2 (Greene)
20. Exam #2 (in class) 4/4 (Greene)

Week 12 (Apr 8-12)

21. The Biological Pump 4/9 (Greene)
22. Global Patterns of Productivity 4/11 (Greene)
   Required Reading: Duxbury et al. Chapter 14

Week 13 (Apr 15-19)

23. Marine Food Chains and Secondary Productivity 4/16 (Greene)
   Required Reading: Duxbury et al. Chapter 15
24. Microbial Loop 4/18 (Monger)
   Required Reading: TBA

Week 14 (Apr 22-26)

25. Ecosystem Response to Climate Variability 4/23 (Pershing)
26. Ecology of Coral Reefs 4/25 (Shulman)
   Required Reading: Chapter 17, pp 472-478

Week 15 (Apr 29-May 3)

27. Silent Sentinels video, Review for Exam #3 4/30 (Greene)
28. Exam #3 (in class) 5/2 (Greene)

FINAL EXAM: Barton Hall Tuesday May 14, 9:00-11:30 AM