

## Syllabus for Marine Biology, Biology 251 Winter Semester, 2012

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Office: Higley 202 Office Hours: M 9-11, T-R 8-9:30, or by appointment

Text: Marine Ecology. Processes, systems and impacts, 2<sup>nd</sup> Edition, by Michel Kaiser *et al.* 2011.

### Summary of topics and readings, by week:

Week	Topic	Reading Assignment
Jan 17	Basic physical patterns in ocean systems	Chapter 1
Jan 24	Biology of open oceans: productivity & its limits	Chapter 2
Jan 31	Biology of open oceans: microbial ecology	Chapter 3
Feb 7	Secondary production	Chapter 4
Feb 14	Critical boundaries: estuaries and marshes	Chapter 5
Feb 21	Easy Marine Ecology: shorelines	Chapter 6
Feb 28	Challenging Marine Ecology: pelagic ecosystems	Chapter 7
March 20	Ecology of continental shelves	Chapter 8
March 27	Non-intuitive Marine Ecology: the deep sea	Chapter 9
April 3	Shallow systems: mangroves & seagrass meadows	Chapter 10
April 10	Biodiversity hotspots: coral reef habitats	Chapter 11
April 17	Fisheries	Chapter 13
April 24	Aquaculture	Chapter 14
May 1	Conservation & Climate Change	Chapters 15, 16

**See the next page for the schedule of assignments.**

### Overview and Student Responsibilities

Ocean ecosystems are critical to people in many ways – even to those of us with 400-mile commutes to the nearest coastline. Oceans influence climate and weather, provide resources, and are sources of biological diversity (with both utilitarian and aesthetic benefits). In this course, you will learn the major characteristics of different ocean ecosystems and the organisms that inhabit them. You will examine patterns in the context of more general biological principles. You will explore the techniques used to better understand oceanic systems, which challenge us in terms of large scale and difficult access.

**Summary of tests and assignments:**

<b>Date Due</b>	<b>Assignment</b>	<b>Percentage</b>
Jan 31	Paper summary 1	5
Feb 9	Hour test 1	15
Feb 14	Productivity paper critique	15
March 27	Hour test 2	15
April 5	Paper summary 3	10
April 26	Hour test 3	15
May 3	Paper summary 4	15
all semester	Class attendance, participation in discussion	10
	TOTAL	100

**Because much of your grade is based on writing, please be sure to review the regulations regarding plagiarism. In particular, paraphrasing must be avoided and proper citation of sources is expected.**

If you have a disability that may impact your ability to carry out assigned course work, I urge that you contact the Office of Disability Services at 5453. The Coordinator of Disability Services, Erin Salva (salvae@kenyon.edu), will review your concerns and determine, with you, what accommodations are appropriate. All information and documentation of disability is confidential.

All students are encouraged to meet with me outside of class, either to pursue a topic of special interest or if you are having problems with any course material. My office hours are given at the beginning of the syllabus; if you have classes that conflict with my office hours please arrange to meet another time. "Drop-in's" are encouraged. Times that regularly are committed to other activities for me are Monday and Wednesday 1-5:30 pm, and Tuesday from 1:30 to 3:00.

Biology 251 will expose you to a comprehensive overview of marine biology, with emphasis on basic principles. To learn more about marine organisms and habitats, you are encouraged to explore summer or semester programs "off campus." Kenyon has several affiliations that promote such study. The Marine Science Education Consortium includes Kenyon; courses are taught through Duke University at their Beaufort Marine Laboratory. We also participate in the Semester in Environmental Science, which provides courses at the Marine Biological Laboratory in Woods Hole. Kenyon is an affiliate institution with the School for Field Studies, with marine oriented programs in South Caicos Island (British West Indies). Finally, a former Kenyon professor works at the Shannon Point Marine Center in Anacortes, Washington; she encourages Kenyon students to attend sessions along the Pacific Ocean there. Numerous other programs are available.