



Marine Biology
Biology 17, Fall 2009
J. Bellemin

TENTATIVE LECTURE SCHEDULE

Class sections 1136 and 1138

Introduction to the Biology of Marine Life 9th ed. by J. Sumich and J. Morrissey

WEEK OF	LECTURE TOPIC	READING
Sep 1	Introduction to Marine Biology, classification of living things, Historical marine biology and early marine biologists.	page 48 Chapter 1
Sep 8	<i>The Ocean as a Habitat</i> Sea floor, plate tectonics,	Chapter 1
Sep 15	Seawater and its properties and movements, Waves, currents, tides, marine provinces.	
Sep 22	<i>Patterns of Associations</i> Spatial distribution, nekton, plankton, benthos. Evolution, taxonomy, classification. Energy relations, trophic structure; food chains, webs and pyramids	Chapter 2
Sep 29	EXAM I <i>Phytoplankton</i> Cyanobacteria, Chrysophyta, Dinophyta, Adaptations as plankton, size, sinking Productivity, measurement and factors affecting productivity	Chapter 3
Oct 6		
Oct 13	<i>Marine Plants</i> Sea weeds and sea grasses; geographic distribution, productivity	Chapter 4
Oct 20	<i>Marine Protozoa and Invertebrates</i> Protozoa, Porifera, Cnidaria, Platyhelminthes, Nematoda,	Chapter 5
Oct 27	Mollusca, Annelida,	Chapter 5
Nov 3	Arthropods, Echinoderms.	
Nov 10	EXAM II <i>Marine Vertebrates</i> Hallmarks of vertebrates, fish, Agnatha, Chondrichthyes, Osteichthyes, fish locomotion, behavior, reproduction strategies, Reptiles, natural history, behavior	Chapter 6
Nov 17		pg.170-193 pg. 274-286
Nov 24	EXAM III Marine Birds and Mammals	Chapter 9
Dec 1	biology, natural history, behavior,	Chapter 10
Dec 8	courtship, reproduction, exploitation	Chapter 12
Dec 15	<i>Harvesting Living Marine Resources</i> Overfishing and species declines	Chapter 13
Dec 17	FINAL EXAM and EXAM IV*	

Important Dates to Remember

September 25- Last day to withdraw without notation on permanent record.

November 20- Last day to withdraw and receive a W. If you do not drop yourself on or before this date I will not be able to give you a W.

Summary of Points Possible

Exam I	75 questions	75 points	My score _____
Exam II	75 questions	75 points	My score _____
Exam III	75 questions	75 points	My score _____
Exam IV	75 questions	75 points	My score _____

* (lowest score on one of the four exams will be dropped)

8 quizzes	each 5 questions	40 points	My scores _____
2 periodical reports	15 points each	30 points	My scores _____
Short term paper on a marine organism		60 points	My score _____
Comprehensive Final Exam	150 questions	<u>150 points</u>	My score _____
Total points possible		505 points	My total points _____

Grading Scale

90% - 100%	A
80% - 89%	B
65% - 79%	C
55% - 64%	D
0% - 54%	F

Explanation of Assignments and Requirements for Marine Biology Lecture

Exams:

For the four exams and final it is your responsibility to provide Scantron answer sheets (form no. 882-ES) and come with a #2 pencil. Take your Exams on time because **10 points** will be deducted for make-up Exams!

Quizzes:

Ten quizzes will be given this semester, some announced one or two lectures in advance, and some unannounced. Each quiz will be worth 5 points and will be given in the first 10 minutes of the lecture period. You will **not be allowed to make up the day's quiz if you arrive late, after the quiz has been passed out, or if you are absent that day.** I will use only 8 scores and will drop your lowest score or a 0 for a missed quiz.

Periodical Reports:

Each of the two reports should be a **one full page, typed** summary of an **approved** magazine article in the subject area of Marine Biology. Please include in each finished paper author, title, journal, volume, date, pages and your name. Reasonable sources include:

Science	Scientific American
Smithsonian	Discover
Nature	Natural History
Oceans	Outdoor California
National Geographic	National Wildlife

Or you may reference any legitimate Marine Biology journal. Several magazines and journals are available in the ECC library, but you are also encouraged to try at Cal State Long Beach Library which has a far larger selection, or various city libraries. Please bring the article title and source to me in advance for approval if you are uncertain that it will be acceptable. **I will not approve** articles from sport diving magazines, surfing or water sport magazines like Skin Diver, also quasi-science fiction magazines and cosmic awareness sorts of magazines with lots of pictures and no text.

These two papers may be turned in any time before or on **September 17 for the first report and October 15 for the second report.** Papers received after these dates will be **graded down one point for each day they are late!**

Short Term Paper:

The subject of your paper should be **one particular species of marine organism**, plant or animal that you find interesting and for which you can find several references, books or journal articles. Find out all you can about this organism; location, habitat, natural history, behavior, why it grows where it does and if it has any strange characteristics that make it particularly interesting or valuable to man.

The body of the paper should be at least four full pages in length, double-spaced, and typed. In addition to those four pages you must include a title page, footnotes and bibliography or literature cited using at

least 5 references from journals or books not including the current texts. If you have problems with format and composition you might visit the ECC Writing Center for this assignment.

Scientific journals and magazines in which articles about marine biology maybe found include:

Bulletin of the Southern California Academy of Sciences

National Geographic Magazine

National Wildlife Natural History

Nature Ocean Realm

Outdoor California Science

Scientific American Smithsonian

The Veliger Zoological Record

Some of these are in the El Camino Library or other city libraries and most all could be found in the libraries at CSU Long Beach or CSU Dominguez.

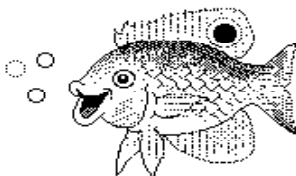
This will be due **November 19** although it may be turned in anytime before. It will be worth 60 points and will be graded on biological correctness, creativity, style, and presentation. **Each day late will demerit the paper 2 points.**

Marine Biology Extra Credit Opportunities:

There will be several other lectures field trips or boat trips offered outside of class time. These are not required but your attendance and participation will be rewarded with **10 extra credit points each**. In order to receive extra credit you must write a **one page, typed report about your experience or fill in a question sheet I have prepared** and show **proof of attendance**. You must make your own reservations, arrange for transportation, and pay any fees necessary.

I will announce dates and times as soon as they become available.

Contact Information: Jbellemi@elcamino.edu 310 6603593 ex 3354
Office located in Natural Science Building, Nats 110, office hour T – TH 11 AM



Selected Course Objectives: Upon completion of the course you should be able to:

1. Describe some of the earliest contributors to the field of Marine Biology: early cultures, explorers and researchers that began the field of Marine Biology.
2. Explain the origin of the present sea floor shape and the movement of continents to their present position.
3. Review the properties of water and how they are affected by salt to create the chemical and physical characteristics of seawater.
4. Explain the life processes of photosynthesis and cellular respiration and where they occur in the cells of marine organisms reflecting on the environmental limitations of the ocean.
5. List the basic marine plant groups giving local examples.
6. Review the major invertebrate animal phyla of the ocean and their distinguishing characteristics.
7. Describe the different classes of fish using common local examples.
8. Describe some reptiles and birds of the ocean listing their unique adaptations for marine life.
9. Explain the origin and adaptations that allowed marine mammals to return to the sea.
10. Recognize many of the overuses and abuses by man on marine organisms and the ocean in which they dwell.

