

## BIOLOGY 325OL: LIFE IN THE SEA

### Spring Semester 2010

**Instructor:** Dr. Michael Franklin

**Ticket #:** 16014; Arrange, on-line

**Telephone:** 677-7145 (office), or 677-3356 (Biology office to leave a message)

**Office Hours:** MT 1100-1230, or by appointment

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**Required Texts:** *Marine Biology*, 7<sup>th</sup> Edition, by Peter Castro and Michael Huber (2007). *The Elements of Style*, 4<sup>th</sup> Edition, by William Strunk Jr. And E.B. White (2000).

**\*\*NOTE\*\*** There may also be handouts and reading material that you will have to obtain from the library. This information will be posted on the lecture site.

### SCHEDULE OF TOPICS

#### LECTURE TOPIC(S)

(In order of posting...)

#### READING(S) (Chapter)

Introduction/Overview; Marine Biology as a Science;	1
Formation of Oceans & Plate Tectonics	2
Properties of Seawater/Oceanography:	3
Currents, Waves, Tides	
Biological Processes, Diversity	4, 5
of Marine Organisms: The Algae	6
Diversity of Marine Organisms: The Invertebrates	7
Energy Flow and Nutrient Cycling	10
Marine Community Ecology/Life on the Benthos:	11
Intertidal Communities	
Life on the Benthos: Subtidal,	11 - 13
Deep-Sea Communities	
Life in the Water Column: Plankton	15
Life in the Water Column: Nekton, Fishes!	15, 16
Marine Birds, Reptiles and Mammals	8, 9
Special Habitats: Estuaries and Coral Reefs	12, 14
Marine Mammals	9
Food from the Sea; Human Impact on the Oceans	17
Marine Conservation	18
Introduction to Marine Ecology	
Fisheries Management and the Future of Marine Stocks	19

Course goals: Over 75% of the Earth's surface is covered by the world oceans, and most of the life on this planet exists in these seas. We have always been fascinated by the seas and its inhabitants, and we have come to depend on the oceans for various resources. Moreover, we continue to affect marine communities and habitats. Can we continue to turn to the seas for our resources? This course covers general aspects of marine biology (e.g., physical and biological oceanography, biological processes, ecology). You should (1) *gain an appreciation and understanding for the diversity of life in marine systems*, (2) *learn biological processes and ecological concepts relevant to individuals, populations, and communities in the world oceans*, and (3) *finally, we will examine how human interactions have affected marine populations, as*

*well as whaling policies, pollution, habitat restoration and conservation.*

Class: Lectures will be posted on the WebCT site. You will also have occasional video presentations will help us to get into a 'virtual sea'.

NOTE: material covered will come from several sources, including but not exclusively from the text. You are responsible for all readings, lectures, and video/slide presentations that will be in the assignments

Grading and Exams: One short report (6-8 pages typed, double spaced @ 50 pts, 12 out of 14 posted and graded assignments @ 20 pts each (240pts), a self guided tour of the Cabrillo Aquarium and the handout (100 pts), and a video assignment write up (50 pts), and 10 points for an visit to an online virtual undersea lab, for a possible total of 450 points. Grades will be based on the percentage of total points accumulated. I will utilize the following grading scale throughout the semester: 94-100% = A; 89-93% = A-; 88-86% =B+; 85-82% = B; 79-81%= B-; 76-78% = C+; 69.5-75%=C; 65-69.4%=C-; 62-64%=D+; 57-61%=D; 54-56%=D-; below 54% = F. Improvement is also taken into consideration, but don't expect miracles, *you* are responsible for your grade. As a rule, and a general policy, *I do not assign incomplete's (I), unless there is a compelling reason to do so* (not doing well in the class is **NOT** a compelling reason). Also note, *withdrawals will not permitted during the last three weeks of the semester* (again the reason must be valid and verifiable). Be sure to refer to the schedule of classes and the CSUN catalog.

**Course Assignments:** These will be posted on a separate page and will follow the above point convention. Your participation is expected. Directions and due dates will be included for each assignment. Your two lowest scores will be dropped and your grade will be on all of the other assignments. *The Elements of Style* will help you to put together clear and concise reports.

Biology Department Withdrawal Policy: Unrestricted class withdrawals are permitted only until the end of the third week. Thereafter, requests to withdraw will be honored only when a verifiable serious and compelling reason exists and when there is no viable alternative to withdrawal. Poor performance is not an acceptable reason for dropping a class; in fact, you must be passing in order to withdraw. During the last three weeks of class, withdrawals will not be approved except when a student is withdrawing from all classes for verifiable medical reasons.

Cheating and Plagiarism: Academic dishonesty in any form will not be tolerated and violators of this policy will be punished as per university policy (please see the Catalog). You should cite your sources when you write a paper. Provided that you do give the citation, it is acceptable to relate someone else's findings or arguments in your own words. Copying another individuals work without proper citation is theft (of intellectual property). Like cheating on exams, this is not to be taken lightly, and will be punished according to university policy (when in doubt, please check your Catalog). Go out of your way to avoid the temptation of academic dishonesty in any form. The consequences far outweigh the "benefits". I do make use of software to check for plagiarism in reports, so in short, don't do it.

Special Note: There may be the opportunity to go out into the field once or twice this semester. The outings will help to illustrate some of the concepts covered in class, and you will observe many local marine organisms. This trip (or series of trips) are still in the planning stage, and your participation is optional.

**Recommended Corequisite:** BIOL 325L. May be used to satisfy the lab requirement in Natural Sciences of General Education, Section B.1, provided BIOL 325 is also completed. If you have any questions, don't hesitate to ask me. If my office hours don't fit your schedule, we will set up an appointment.

**GOOD LUCK!!!!**