

Chaminade University
Summer 2007

LECTURE AND LAB SYLLABUS
INTRO TO MARINE BIOLOGY, BI 115-30-2 and 115L-30-2

Instructor Randy Honebrink (email Randy.Honebrink@adjunct.chaminade.edu; phone 587-0111 (b); 947-4543 (h)). Contact by email is preferred.

Meeting Dates/Times July 2 – Sept 12; Lecture Tu 1730-2140, Lab Sa 0800-1210

Course Description Introduction to Marine Biology is a 3-credit course which surveys the major areas of marine biology. Emphasis is on the structure and function of marine organisms, their interactions with their environment, and human impacts on the marine environment on a local and global scale. Topics include: physical and chemical properties of the marine environment, biodiversity, anatomy, physiology, behavior, and ecology. The 1-credit Biology 115L lab must be taken concurrently with lecture.

Course Objectives At the end of this course, the student will have general knowledge of the field of marine biology, including an understanding of: 1) basic concepts of chemistry, oceanography, and biological processes; 2) biodiversity and habitats; 3) how marine organisms are adapted to and interact within these habitats; and 4) effects of humans on marine ecosystems.

Required Text *Marine Biology*, (6th ed.), by Castro and Huber, McGraw Hill, Boston. 2007. There is no laboratory manual; lab handouts will be provided.

Grading Lectures and labs are graded separately. Lecture grades will be based on your performance on weekly quizzes, four biological summaries, a final exam, and class participation and attendance (P/A). Quizzes will be given each Tuesday and cover material presented the previous week. Lab grades will be based on lab write-ups and assignments placed in a lab notebook, a practical exam covering lab topics, and participation and attendance. There is no opportunity for extra-credit work.

| <u>LECTURE</u> | | <u>LAB</u> | |
|--------------------|---------|---------------|---------|
| Quizzes (8 @ 30) | 240 pts | Lab notebook | 150 pts |
| Summaries (4 @ 20) | 80 pts | Lab practical | 50 pts |
| Final exam | 100 pts | <u>P/A</u> | 50 pts |
| <u>P/A</u> | 30 pts | | |
| <i>TOTAL</i> | 450 pts | <i>TOTAL</i> | 250 pts |

General grading scale: 90%=A; 80%=B; 70%=C; 60%=D

Attendance

Attendance is expected for each lecture and lab. Attendance for labs is especially important, as labs cannot be made up. Excessive absences for lectures or labs will result in grade penalties to be determined by the instructor. Exams missed because of unexcused absences cannot be made up. Excused absences should be documented, e.g. note from superior or physician. Early exams will not be given.

Article Summaries

Four summaries of articles related to current topics in marine biology will be required at times indicated on the course schedule. Up to two of the summaries may be on a particular marine species. Each summary is worth 20 points, included in the lecture grade. Summaries must be from a newspaper, journal, magazine, or internet source not more than two years old, and pertain to marine biology. Each summary should be one to two pages long, word processed or typed, and double spaced.

The summary must begin with the title of article, author, source, date of publication, and page numbers. For web site publications, begin with title, URL (web address) author (if known), last date updated (if indicated), and date accessed. You must attach a copy of the article, or a print-out of the web site source, to your summary.

Lab Notebook

You should have separate notebooks for lecture and lab. The lab notebook should be bound (spiral is acceptable), and will be used for observations, drawings, notes, data, and answers to questions on lab handouts. The lab notebook may be graded from time to time during the course.

IMPORTANT: Chaminade campus lab rules prohibit food, drinks, shorts, and open-toe footwear. Lab coats (provided) are required.

Academic Honesty

Students are expected to comply with the rules governing academic honesty as published by Chaminade University. Students involved in cheating or plagiarism will be issued failing grades for the exam or assignment in question.

BI-115 Introduction to Marine Biology
 BI-115L Intro to Marine Biology Lab
 Summer 2007, Tripler AMC

TENTATIVE COURSE SCHEDULE

| | | | | |
|-----|----|-------------|---|-----------|
| Jul | 3 | T | Physical oceanography | Chap. 2,3 |
| | 7 | S (Campus) | Intro to lab, microscopes | |
| | 10 | T | Basics of biology, microbes, algae | 4,5,6 |
| | 14 | S (Campus) | Algae, plankton | |
| | 17 | T* | Fishes | 8 |
| | 21 | S (Campus) | Fish form and function, dissections | |
| | 24 | T | Invertebrates | 7 |
| | 28 | S (Makapuu) | Field trip – Makapu‘u tidepools | |
| | 31 | T* | Marine reptiles and mammals, intro to ecology | 9,10 |
| Aug | 4 | S (W Aq) | Field trip – Waikiki Aquarium | |
| | 7 | T | Intertidal communities, coral reefs | 11,14 |
| | 11 | S (Paiko) | Field trip – Paiko Lagoon | |
| | 14 | T* | The epipelagic | 15 |
| | 18 | S (Campus) | Invertebrates; review for lab practical | |
| | 21 | T | Ocean depths | 16 |
| | 25 | S (Kaneohe) | Field trip – Coconut Island | |
| | 28 | T* | | |
| Sep | 1 | S (Campus) | Lab practical | |
| | 4 | T | Resources and human impacts, review for final | 17,18 |
| | 8 | S (Campus) | Final exam | |
| | 11 | T | Reserve day | |

* Marine article summaries due