LECTURE AND LAB SYLLABUS INTRO TO MARINE BIOLOGY, BI 11520 and 115L20

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Meeting Dates/Times Oct 6 – Dec 17; Lecture Tu 1730-2140, Lab Sa 0800-1210

<u>Course Description</u> 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.

<u>Course Objectives</u> 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, (7th ed.), by Castro and Huber, McGraw Hill, Boston.

2008. There is no laboratory manual; lab handouts will be provided.

<u>Grading</u> Lecture and lab are graded separately. Lecture grades will be based on

your performance on weekly quizzes, four article summaries, a final exam, and class participation and attendance (P/A). Quizzes will be given at the end of class 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 in either lecture or lab.

<u>LECTURE</u>		$\underline{\text{LAB}}$	
Quizzes (8 @ 30)	240 pts	Lab notebook	150 pts
Summaries (4 @ 20) 80 pts	Lab practical	50 pts
Final exam	100 pts	P/A	50 pts
P/A	30 pts		
TOTAL	450 pts	TOTAL	250 pts

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

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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. Electronic devices which may prove a distraction to yourself or others may not be used during class (e.g., absolutely no texting during class).

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, 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 a web site source, to your summary. Wikipedia may not be used as a web source.

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 notebook may be graded from time to time during the course, and will be used as a resource for part of the lab practical exam.

<u>IMPORTANT:</u> Chaminade requires that lab coats be worn in the labs. Disposable coats cost \$5 and must be purchased at the first lab meeting. Please bring the exact amount. Lab rules also prohibit food, drinks, shorts, and open-toe footwear.

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.

TENTATIVE COURSE SCHEDULE

Oct	6 10	T Sa (Campus)		nap. 2,3
	13 17	T Sa (Campus)	Basics of biology, microbes, algae Algae, plankton	4,5,6
	20 24	T* Sa (Campus)	Fishes Fish form and function, dissections	8
	27 31	T Sa (Makapuu)	Invertebrates Field trip – Makapuʻu Tidepools	7
Nov	3 7	T Sa (K Bay)	Marine reptiles and mammals, intro to ecology Field trip – Coconut Island	9,10
	10 14	T Sa (Paiko)	Intertidal communities, coral reefs Field trip – Paiko Lagoon	11,14
	17 21	T Sa (W Aq)	The epipelagic Field trip – Waikiki Aquarium	15
	24 28	T Sa (Campus)	Ocean depths Invertebrates; review for lab practical	16
Dec	1 5	T Sa (Campus)	Resources and human impacts Lab practical	17,18
	8 12	T Sa (Campus)	Review for final exam Final exam	
	15	T	Reserve day	

^{*} Marine article summaries due