

LECTURE AND LAB SYLLABUS
INTRO TO **MARINE** BIOLOGY 11560

Instructor: John Schmerfeld (Phone - 377-9200; email - john schmerfeld@fws.gov)

Meeting Dates/Times: July 6 - September 13, 1999; T - Th, 1645 - 2115

Course description: Introduction to Marine Biology is a 3-credit course which surveys the major areas of biological ocean science emphasizing the structure and function of living things, how they interact with their environments, and how humans **impact** the marine **environment** on a global scale. The topics **include:** **basic** ocean **chemistry**, **oceanography**, **biodiversity**, **MOW physiology**, and **ecology**. The 1-credit Biology 115 lab must be taken **concurrently with** lecture.

At the end of these courses, the **student** will have: (1) an **understanding** of some basic concepts of marine chemistry and oceanography; (2) an enhanced appreciation of Earth's complex marine biodiversity and marine habitats; (3) an appreciation of how marine **flora** and fauna are uniquely adapted to various habitats; and (4) general knowledge the **field** of marine ecology.

Required Text: *Marine Biology: An **Ecological** Approach*, (4th ed.), by James **Nybakken**, Harper **Collins**, N.Y., N.Y., 1997. Lab handouts will be provided.

Attendance: Students are expected to attend all classes and may receive grade level penalties for excessive absences. Students who are absent from class for any reason are still responsible for exams, labs, and assignments. Historically, there has been a strong correlation **between attendance** and final grades in my classes.

Grading: The grade in Biology 115 **lecture** will be based on your performance in two examinations, four biological summaries, quizzes, and class participation and attendance (P/A). The Biology 115 lab grade will be **based** on 10 of 13 possible lab assignments placed in a lab notebook that will be graded **twice** during the semester, and three short exams. The grading system follows:

GRADING SCALE (for lecture and lab)		
Exam 1	100 pts.	A = 90-100%
Exam 2	100 pts.	B = 80-89%
Summaries	100 pts. (25 pts. each)	C = 70-79%
Quizzes, P/A	50 pts.	D = 60-69%
TOTAL	350 pts.	F = <60%

LAB

Lab Exams	120 pts. (40 pts. each)
Lab Notebook	100 pts. (graded twice, 10 pts. per lab)
P/A	10 pts.
TOTAL	230 pts.

Academic Honesty: All **students** are expected to comply with the rules governing academic honesty as published by Chaminade University. **Students** involved with cheating or plagiarism will be issued failing grades for the **exam/assignment** in question. Severe cases of dishonesty will be formally submitted to the Academic Dean for disciplinary review.

TENTATIVE COURSE SCHEDULE

			<i>LECTURE</i>	<i>CHAPTER</i>	<i>LAB</i>
July	6	T	Introduction/Chemistry		Intro to Lab
	8	Th	Properties of Water, Nutrient Cycles	1+	Tools of Science
	13	T	Oceanography	1+	TBA
	15	Th	Ecology (S-I due)*	1+	Primary Productivity
	17	S***	Waikiki Aquarium (Host - Dr. Carol Hopper)	handouts	Faunal Habitat Adaptations
	22	Th	Alien Invasions (Guest - Chela Zabin, UH)	lecture quiz	Film
	27	T***	Applied Marine Research (Host - Katherine Unabia, KML)		Kewalo Marine Lab Tour
	29	Th	SHARKS!! (S-II due)* (Guest - Kevin Foster, USFWS)		Lab Exam 1
Aug,	3	T	Plankton	2	Plankton Tow(s) and Analysis
	5	Th	Nekton	3	Dissections
	10	T	EXAM 1		Lab Notebook Due
	12	Th***	Aquaculture (Host - Dr. Gary Karr)		oceanic Inst. Tour
	17	T	Deep-Sea Biology (S-III due)*	4	Hydrothermal Vents
	19	Th	Near-Shore Biology	5/6	Lab Exam 2
	24	T**	Coral Reefs	9/10	Biodiversity (CAMPUS)
	28	S***	Reef Assessment		
	31	T	Human Impacts (Guest - Dr. Woodward, Toxicologist)	11+	Contaminants in the NWHI
Sept.	2	Th***	Human Impacts (S-IV due)* (Host - Navy PWC)	11+	Fort Kam WWTP Tour
	7	T	Human Impacts, Overuse	11+	Lab Exam 3, Lab Notebook Due
	9	Th	EXAM 2		
	13	T	Reserve Day		

* Indicates the four dates on which your summaries of recent marine **biological** articles are due.

** Class **will** be held in the biology lab in Henry Hall at Chaminade Main Campus.

*** Indicates out of **class field** trips that **require** a signed **waiver**.