

Syllabus EEB Aquatic Communities Fall 2008

Instructor: **Patricia Halpin (Halpin@ucla.edu)**
 Office: **413 Botany** OH: **Mon 2:30-3:30, Th 2:30-3:30**

Lecture: Franz 2258A

Text: Nybakken and Bertness, 2005. Marine Biology: An Ecological Approach

Course Grade Based on 500 total points:

Midterm Exams (100 pts each)	200 pts
Final Exam	100 pts
Discussion	180 pts
Lecture participation	20 pts

Date	Subject	Reading
R Sept. 25	Introduction, Air and Water	Ch 1
T Sept. 30	Marine Habitats	Ch 1
R Oct. 2	Rocky Shores	Ch 6
T Oct. 7	Kelp Forests	Ch 5
R Oct. 9	Soft Bottom Communities	Ch 5, 6 (selected pp)
T Oct. 14	Deep Sea	Ch 4
R Oct. 16	Mangroves	
T Oct. 21	Coral Reefs	Ch 9
R Oct. 23	EXAM 1 (100 pts)	
T Oct. 28	Ocean Pelagic Zone	Ch 2
R Oct. 30	Ocean Pelagic Zone	Ch 3
T Nov. 4	Freshwater Habitats	
R Nov. 6	Rivers	
T Nov. 11	<i>No Class: Veterans Day</i>	
R Nov. 13	EXAM 2 (100 pts)	
T Nov. 18	Rivers	
R Nov. 20	Estuaries	Ch 8
T Nov. 25	Lakes	(No Discussion Section
R Nov. 27	<i>No class: Thanksgiving Holiday</i>	<i>meeting this week)</i>
T Dec. 2	Fisheries	Ch 11
R Dec. 4	Aquaculture	Ch 11
R Dec. 8	FINAL EXAM 3-6 PM (100 pts)	

LECTURE AND EXAMS

The course has three equally weighted exams, 100 pts each. The exams are non-cumulative. The first two exams are during class sessions. The third exam will be held during the assigned final time. Exams are short answer. There are no make-up exams, students must take the exams during the assigned time. In addition, there will be in class self-evaluations and group work, worth 20 additional points. These exercises are all or nothing points, but students must attend class and participate for credit.

DISCUSSION SESSIONS

Overview: The discussion sections are centered around reading and critically evaluating the primary peer-reviewed literature. Students will be required to read papers from the primary literature and discuss them in section. Additionally they will either have an open-note online quiz on the papers before section or turn in answers to questions that critically evaluate the literature. For one paper, the students will hand in a more extensive critique, using the skills they have developed during the quarter.

Readings for Discussion: Reading are available as pdfs on the class website.

Reading Quizzes: Reading quizzes on the assigned readings are conducted through blackboard. They are available until midnight the night prior to section. They are open note. You may take the quiz more than once, but if you start a quiz a second time, you must complete the attempt. Quizzes are available from on weeks where a quiz is given (weeks 2, 4, 7, and 10)

Questions: The questions are a written assignment due at the beginning of section in weeks 3, 5, and 6. The questions are designed promote critical reading and promote discussion during section. The questions are

1. What is the objective of the study and why is it important?
2. Did the authors approach and methods adequately test his or her hypothesis or answer the paper's stated objectives?
3. What are the papers most important results? Justify your answer.
4. What are the authors conclusions and does the data support them? Are there alternative explanations that fit the data?

Questions should be answered in complete sentences using clear, concise prose. Answers will be graded on thoroughness of answers, analysis, and clarity of prose. Maximum length: 1 page, double spaced.

Paper Critique: In Week 8, students will turn in a formal paper critique on Bertness and Hacker (1994). This will be a more in depth analysis than that of the questions, but using skills developed during those assignments. Analysis includes and overview of the paper combined with evaluation of the strengths and merits of the papers. Critiques will be uploaded to Turn It In. Maximum length: 3 pages, double spaced.

GRADING

If the class average for cumulative points is above 75%, letter grades will be based on a straight percentage of the 500 point maximum: 90-100%=A±, 80-89%=B±, 70-79%=C±, 60-69%=D±, <60%=F. Within each letter grade, a minus (-) will be assigned to the bottom three percentage points and a plus (+) will be assigned to the top three percentage points (e.g., 80-82.9% is a B-, 87-89.9% is a B+). If the class mean is *lower* than 75%, we will lower the cutoffs somewhat to compensate (e.g., 89% may become an A-).

DISCUSSION SCHEDULE**TA: Chris Chabot****Office: LS A806****Office Hours: T-Th 11-12:00****Section 1A: W 9:00 Lakretz 120****Section 1B: W 10:00 Lakretz 120**

<i>Dates/Topic</i>	<i>Article</i>	<i>Points</i>
Week 1, 9/29	Introduction	None
Week 2, 10/6 Marine Diversity	Sousa (1979)	Quiz (10) Participation (5)
Week 3, 10/13 Rocky Intertidal/Subtidal	Raimondi (1988)	Questions (20) Participation (5)
Week 4, 10/20 Soft Bottoms	Byers (2000)	Quiz (10) Participation (5)
Week 5, 10/27 Coral Reef Fishes	Doherty & Fowler (1994)	Questions (20) Participation (5)
Week 6, 11/3 Streams	Wooton et al. (1996)	Questions (20) Participation (5)
Week 7, 11/10 Lakes	Vander Zanden et al. (1999)	Quiz (10) Participation (5)
Week 8, 11/17 Wetlands	Bertness and Hacker (1994)	Critique (40) Participation (5)
Week 9, 11/24 HOLIDAY	(No discussion sections this week)	
Week 10, 12/1 Fisheries	Botsford et al. (1997) Lewison et al. (2004)	Quiz (10) Participation (5)

Grading for the discussion section is based on attendance, participation and homework. Attendance is mandatory and late homework is not accepted.

READINGS FOR DISCUSSION

Week 2

Sousa WP (1979) Disturbance in Marine Inter-Tidal Boulder Fields - the Non-Equilibrium Maintenance of Species-Diversity. *Ecology* 60:1225-1239

Week 3

Raimondi PT (1988) Settlement Cues and Determination of the Vertical Limit of an Intertidal Barnacle. *Ecology* 69:400-407

Week 4

Byers JE (2000) Competition between two estuarine snails: Implications for invasions of exotic species. *Ecology* 81:1225-1239

Week 5

Doherty P, Fowler T (1994) An Empirical-Test of Recruitment Limitation in a Coral-Reef Fish. *Science* 263:935-939

Week 6

Wootton JT, Parker MS, Power ME (1996) Effects of disturbance on river food webs. *Science* 273:1558-1561

Week 7

Vander Zanden MJ, Casselman JM, Rasmussen JB (1999) Stable isotope evidence for the food web consequences of species invasions in lakes. *Nature* 401:464-467

Week 8

Bertness MD, Hacker SD (1994) Physical Stress and Positive Associations among Marsh Plants. *American Naturalist* 144:363-372

Week 10

Botsford LW, Castilla JC, Peterson CH (1997) The management of fisheries and marine ecosystems. *Science* 277:509-515

Lewison RL, Crowder LB, Read AJ, Freeman SA (2004) Understanding impacts of fisheries bycatch on marine megafauna. *Trends in Ecology & Evolution* 19:598-604