OCB 4633 -001 CRN#17922 Spring, 2017

Department of Biological Sciences
Charles E. Schmidt College of Science
Florida Atlantic University

Marine Ecology
3 Credits
Course Syllabus

Instructor: James Masterson
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Office Hours: Harbor Branch (HBOI) campus, Marine Science II Room 217, Tue 10:00-11:00AM or by appointment

TA Contact Information: TBD

This syllabus is subject to change at any time by the instructor. Changes may be announced online via Blackboard or verbally in class or by email to the class.

Course Location and Time: Johnson Education Center, HBOI. 210 M, Th 10:40AM–12:00PM

Course Description: Basic and advanced concepts of marine ecology, including the history of the field, population dynamics in marine systems and the internal and external mechanisms that control marine populations. The final third of the class is an overview of the major marine ecosystems of the world.

Course Objective/Student Learning Outcomes: The objective of the course is to provide students with a broad understanding of marine ecology. This course will cover basic and advanced concepts of marine ecology, including the history of the field, population dynamics in marine systems and the internal and external mechanisms that control marine populations. Physiological ecology, competition, predation, genetic ecology, landscape ecology, and evolutionary ecology are among the key topics addressed. The final third of the class is an overview of the major marine ecosystems of the world.

Primary Text: Barnes and Hughes. Marine Ecology. 3^{d} edition or later.
Secondary Text: Levinton. Marine Ecology (1982).
Additional readings, including current and classic/historic primary literature from the field of marine ecology will be assigned during the semester.

Course Co-requisite: OCB 4633L Marine Ecology Lab

Course Prerequisites: CHM 2045 Minimum Grade of C-, and CHM 2045L Minimum Grade of C-, and CHM 2046 Minimum Grade of C-, and CHM 2046L Minimum Grade of C-

1. Course Grading:
a. Grade Calculation: Grades will be based as a percentage of the possible points/student.

The total point value for the OCB 4633 lecture component is broken down as follows
Hour Exam 1 (100 points)
Hour Exam 2 (100 points)

Hour Exam 3 (100 points)
Class Participation (50 points) — incl. participation in class discussion of assigned reading
Total Points Possible: 350

b. Hour Exams: Hour Exams will include a combination of short answer (one or a few words up to a couple sentences; multiple choice/matching and true/false questions are also fair game) and longer essay questions based on lecture topics, text readings and additional text and paper reading assignments. Although not cumulative per se, lecture material frequently makes references to or elaborates on topics introduced in earlier lectures and exam questions will reflect this. Note that Hour Exam 3 will be given during the final exam time slot as officially scheduled by the university.

c. Grading Scale: The following scale will be used for computing the final grade.

A = 92 -100%	C+= 78 - 79%
A- = 90 - 91%	C = 72 - 77%
B+= 88 - 89%	C- = 70 - 71%
B = 82 - 87%	D = 60 - 69%
B- = 80 - 81%	F = less than 60%

2. Attendance Policy: As class attendance is requisite for in-class participation, attendance at lectures is expected. Regular absence from lectures will be reflected in a poor class participation grade. Students missing a large number of lectures will also find it difficult or impossible to perform well on Hour Exams. In (hopefully rare) cases of unavoidable absence it is the student's responsibility to ask the instructor for copies of missed classed handouts and to find out if any readings or other assignments were missed. As a courtesy, please inform the instructor if you know ahead of time you will be absent for a lecture.

Students will not be penalized for absences due to participation in University-approved activities, including athletic or scholastics teams, musical and theatrical performances, and debate activities. These students will be allowed to make up missed work without any reduction in the student's final course grade. Reasonable accommodation will also be made for students participating in a religious observance.

Attendance for Hour Exams during the scheduled exam times is required unless alternate arrangements for taking the exam have been discussed and approved by the instructor in advance of the scheduled exam time. In cases of illness or other unforeseen emergency constituting a legitimate absence as defined by FAU Academic Policies and Regulations, students with a valid excuse and proper documentation will be allowed to make up a missed Hour Exam.

Rescheduling make-up exams (including writing a new exam where necessary) is inconvenient and time-consuming and is therefore strongly discouraged unless absolutely necessary.

3. Incomplete Grade: Students who register for a course but fail to complete the course requirements without dropping the course will receive a grade of "F" from the course instructor. A student who is passing a course but has not completed all the required work because of exceptional circumstances may, with the approval of the instructor, temporarily receive a grade of "I" (incomplete). The grade of "I" is neither passing nor failing, and it is not used in computing a student's grade point average. The "I" grade is not to be used to allow students to do extra work to raise the grade earned during the regular term. It indicates a grade deferral and must be changed to a grade other than "I" within a specified time frame, not to exceed one calendar year from the end of the semester during which the course was taken. Additional information on

Incomplete Grades and the steps required to resolve them can be found at: http://www.fau.edu/academic/registrar/FAUcatalog/academics.php

4. **Safety:** No food or drinks other than water bottles are permitted in the classroom.

5. **Classroom Etiquette Policy:** University policy on the use of electronic devices states: "In order to enhance and maintain a productive atmosphere for education, personal communication devices, such as cellular telephones and pagers, are to be disabled in class sessions." You may be asked to leave the class session for noncompliance.

6. **Student Honor Policy:** Students at Florida Atlantic University are expected to maintain the highest ethical standards. Academic dishonesty, including cheating and plagiarism, is considered a serious breach of these ethical standards, because it interferes with the University mission to provide a high quality education in which no student enjoys an unfair advantage over any other. Academic dishonesty is also destructive of the University community, which is grounded in a system of mutual trust and places high value on personal integrity and individual responsibility. Harsh penalties are associated with academic dishonesty. For more information, see University Regulation 4.001 at http://www.fau.edu/ctl/4.001_Code_of_Academic_Integrity.pdf

Cheating is a serious offense. If you are caught cheating on an exam, you may receive an F for that exam or for the course. In addition, you may be referred to the Dean of Student Services and charged with an academic crime. Test procedures and rules will be stated at the beginning of each exam. Keep your eyes on your own exam. Study Hard. Strive for the best grade you can achieve but accept the grade YOU earn. Cheating isn't worth it.

Disabilities Statement: In compliance with the Americans with Disabilities Act (ADA), students who require reasonable accommodations due to a disability to properly execute coursework must register with the Office of Student Accessibility Services (SAS) and follow all SAS procedures. SAS has offices across three of FAU's campuses- Boca Raton, Davie, and Jupiter, however, disability services are available for students on all campuses.

Important Dates: The following dates are based upon the current university academic calendar. Changes to these critical dates have occurred in the past and you are responsible for checking the academic calendar on the university website for any changes during the academic term.
http://www.fau.edu/registrar/pdf/acadcal1617.pdf

Classes start	- January 9
M.L.K. Jr. Holiday	- January 16
Last day to withdraw w/o receiving an "F"	- April 7
Spring Break	- March 6-12
Reading days	- April 25-26
Final Examination	- TBD

MARINE ECOLOGY
Spring 2017 Schedule
Instructor: Dr. James Masterson

Week	Date	Lecture, Lab, Field	Reading
1	9 Jan	Historic perspectives on Marine Ecology. Some basic concepts	Levinton 51-69
	11	**Lab: Lab Intro/housekeeping; Report grading policy. Introduction to experimental design and data analysis (Bivalve Lab); Statistics primer.**	
	12	Logistic and exponential population growth models. Demography, life tables, density-dependent population response.	
2	16	Martin Luther King, Jr. Day (NO CLASS)	Levinton 138-159
	18	No Lab	
	19	Metapoulation dynamics and the consequences of recruitment variation	
3	23	Resource limitation. The dynamics of plankton and nekton	B&H 191-206
	25	**Lab/Field: Intertidal Zonation. Sampling spatial patterns in an intertidal community. <u>Bivalve Lab Report Due</u>.**	
	26	Larval ecology: Gamete and spore production, fertilization, larval dispersal and mortality, settlement	
4	30	Primary productivity 1	Levinton 208-231
	1 Feb	No Lab	
	2	Primary productivity 2	
5	6	**EXAM 1 (Covers 7 lectures)**	Levinton 83-85
	8	**Lab/Field: IRL Benthic Ecology PART 1: Soft sediment community (core sampling infauna and sediments, seagrass habitat characterization) <u>Intertidal Zonation Lab Report Due</u>.**	
	9	Stability, disturbance, succession, and diversity	
6	13	Competition 1	B&H 62-64; 68-70; 129-131
	15	No Lab	
	16	Competition 2	
7	20	Trophodynamics and food webs	B&H 43-48
	22	**Lab/Field: IRL Benthic Ecology PART 2: (Sample Processing)**	
	23	Foraging strategies	
8	27	Predator-prey interactions	B&H 189-191
	1 March	No Lab	
	2	Chemical ecology in marine systems	

9	6	SPRING BREAK (No Class)	
	8	SPRING BREAK (No Class)	
	9	SPRING BREAK (No Class)	
10	13	Pelagic communities (Will NOT be covered on Exam 2)	B&H 150-153
	15	**Lab/Field: Recruitment Part 1 (Deployment)** **Benthic Ecology Lab Report Due.**	
	16	**EXAM 2 (Covers 7 lectures)**	
11	20	OCEAN DISCOVERY CRUISE (No Class)	
	22	OCEAN DISCOVERY CRUISE (No Class)	
	23	OCEAN DISCOVERY CRUISE (No Class)	
12	27	Littoral hard bottom/Rocky shore communities	B&H 85-106; 54-76
	29	No Lab	
	30	Soft bottom communities (littoral/neritic/shelf)	
13	3 April	Seagrass and macroalgal communities	B&H 77-84
	5	**Lab/Field: Recruitment Part 2 (Processing)**	
	6	Mangrove and salt marsh communities.	
14	10	Coral reef communities	B&H 117-141 B&H 207-221
	12	No Lab	
	13	Speciation and marine biogeography	
15	17	Life at the extremes 1: Polar and deep-sea communities	Levinton 379-393 Van Dover 397-407
	19	**Lab TBD. Recruitment Lab Report Due.**	
	20	Life at the extremes 2: Hydrothermal vents; cold seeps	
16	24	Marine Ecology and our changing oceans	B&H 238-255
	26	READING DAY (No Classes)	
	27		
	TBD	**EXAM 3 (Covers 10 lectures)**	