

Bergen Community College
Division of Mathematics, Science, and Technology
Department of Biology and Horticulture

Tropical Marine Ecology (BIO-229)

General Course Syllabus
Revised: Spring 2015

Semester and year:
Section number:
Meeting times and locations:

Instructor:
Office Location:
Phone:
Office Hours:
Email Address:

Course Title: Tropical Marine Ecology (BIO-229)

Course Description: This course covers characteristics of populations, communities, and ecosystems found in tropical regions. Taught at the Keys Marine Laboratory in Long Key, Florida, during the spring semester break, students will study coral reef, structure and ecology, the intertidal zone, mangrove and terrestrial communities, interstitial organisms, and trophic relationships. Lab sessions will include field experiences, group projects and report writing.

Prerequisites: BIO-101 General Biology I and BIO-203 General Biology II (or permission of instructor)

General Education Course: No
Course credits: 4.0

Hours per week: 6.0: 3 hours lecture and 3 hours lab

Course Coordinator: Robert Dill

Required Lecture Textbook: Marine Biology, An Ecological Approach, Nybakken, current edition.
Laboratory manual: Exploring Marine Biology, Laboratory and Field Exercises, Haefner, P.A., D.C. Heath Company, Lexington, MA, current edition.

SPECIFIC OBJECTIVES: To acquire an understanding of the general principles of tropical marine ecology and the role of marine organisms in global tropical ecosystems. To become proficient in biological methods and techniques which measure various parameters of the tropical marine environment.

Student Learning Objectives

The student will be able to:

1. Students will investigate the major principles of tropical marine ecology and the relationship of tropical marine organisms to all tropical ecosystems. Assessment will be based upon performance on exam questions. Assessment can also be based on research projects.
2. Students will model proper scientific procedure to identify various types of tropical marine organisms. Students will learn the physical, chemical, and biological methods which measure various parameters of the tropical marine environment. Assessment will be based on performance on laboratory practical exams.
3. Students will be able to explain the scientific basis for techniques used in lab, and the field. Students will be required to demonstrate their retention and acquisition of this knowledge by answering exam questions.
4. Students will demonstrate proper scientific laboratory record keeping. Students will be evaluated by grading of lab notebooks.
5. Students will model critical thinking skills, and apply them to lecture material and the analysis of laboratory data. Students will be evaluated by analysis of experimental results in laboratory reports and research project.

Student Assessment Tools:

The above student learning objectives will be generally assessed or evaluated by instructors using a variety of **assessment instruments** including **lecture exams, laboratory exams, quizzes, laboratory reports, written reports, presentations, projects, etc.** The decisions concerning the type or types and number of instruments that are used in a specific section of the course will be left to the instructor of that section. This information, when given by the instructor should be recorded by the student in the **Student Assessment Section** of this document.

COURSE CONTENT:

<u>UNIT</u>	<u>TOPIC</u>	<u>READINGS</u>
1	Ecological Principles Terrestrial and Marine Ecosystems	Chapter 1
2	Ecology of Coral Reefs Trophic Relationships Primary Productivity	Chapter 9 Chapter 2
3	Higher Trophic Levels Detritus and Dissolved Organic Matter	Chapter 2, 3
4	Intertidal Ecology Rocky Intertidal Sandy Intertidal Muddy Shores	Chapter 6
5	Mangrove Ecology Ecology of Reef Fish	Chapter 9 Chapter 3
6	Shallow-water Subtidal Benthic Ecology Terrestrial Ecosystems	Chapter 5
7	Fouling Communities <u>Sargassum</u> and associated organisms	Chapter 8
8	Marine Mammals	Handout

LABORATORY SCHEDULE:

Laboratory	1	Sandy Intertidal Ecology
Laboratory	2	Patch Reef Ecology
Laboratory	3	Mangrove Ecology
Laboratory	4	Offshore Reef Ecology
Laboratory	5	Rocky Intertidal Ecology

Laboratory	6	Gulf of Mexico Reef Ecology
Laboratory	7	Seagrass Communities
Laboratory	8	Independent/Group Research Project

Student Assessment:	Lecture Examinations_____	_____%
	Laboratory Component_____	_____%
	Student Project/Report _____	_____%
	Class Participation _____	_____%
	Other_____	_____%
	Total	100%

If you have a medical condition or develop a medical condition during this semester, which prevents you from fulfilling the requirements of this course, you must notify your physician. You and your physician must decide whether or not it is appropriate for you to remain in this course. If the decision is to remain in this course, please obtain a letter from your physician indicating that your continued participation in this course is appropriate and present it to the Department Chair.

Faculty Addenda: As per individual faculty member

Lecture Attendance: As per instructor;

Lab Attendance: As per instructor;

Policy Concerning Late Assignments: As per instructor;

Policy Concerning Make-Up Testing: As per instructor;

Safety Information: As per instructor and assigned exercise;

College Policies:

Student Responsibility

Students will be held responsible for reading all pertinent information in college publications regarding withdrawals, course drops, college deadlines, and tuition refunds. Students are responsible for compliance with the rules and regulations as stated in college publications.

Absence of Instructor

Students are expected to wait twenty minutes for a faculty member to come to class. If at the end of twenty minutes, the faculty member does not come, the students should sign an attendance sheet, which indicates the course, date, and time. A student should deliver the attendance sheet to the divisional office (A304) if between 9:00 a.m. and 5:00 p.m. or to the Evening Office (C107) if before 9:00 a.m. or after 5:00 p.m. Students cannot be penalized by faculty for not waiting longer than twenty minutes.

Academic Dishonesty and Plagiarism

Bergen Community College is committed to academic integrity – the honest, fair and continuing pursuit of knowledge, free from fraud or deception. Students are responsible for their own work. Faculty and academic support services staff will take appropriate measures to discourage academic dishonesty. **Plagiarism** is a form of academic dishonesty and may be a violation of U.S. Copyright laws. Plagiarism is defined as the act of taking someone else's words, opinions, or ideas and claiming them as one's own.

Consequences of Violations Academic Integrity

A. Instructor's Sanctions for a Violation

The faculty member will determine the course of action to be followed. This may include:

- Assigning a failing grade on the assignment;
- Assigning a lower final course grade;
- Failing the student in the course
- Other penalties appropriate to the violation;

In all cases, the instructor shall notify the Vice President of Student Services of the violation and the penalty imposed. The student has the right to appeal the decision of the instructor to the appropriate department head.

B. Institutional Sanctions for Violations

When a violation of academic integrity has been reported regarding a student, the Vice President of Student Services may impose disciplinary penalties beyond those imposed by the course instructor, which may include suspension or dismissal from the College. The student shall have the right to a hearing before the Vice President of Student Services or a designated judicial affairs committee. Judicial procedures governing violations of academic integrity are contained in the student handbook.

Class Attendance

All students are expected to attend punctually every scheduled meeting of each course in which they are registered. Attendance and lateness policies and sanctions are to be determined by the instructor for each section of each course. These will be established in writing on the individual course outline. Attendance will be kept by the instructor for administrative and counseling purposes.

Eating and Drinking

Eating or drinking in classrooms, lecture rooms, laboratories, gymnasium, swimming pool, or passageways is forbidden. Covered beverages only are permitted in the library. Eating and drinking are permitted in cafeteria and vending areas only.

Learning Assistance

Henry and Edith Cerullo Learning Assistance Center

The Tutoring Center, English Language Resource Center, Math Walk-In Center and Writing Center are collectively known as the Henry and Edith Cerullo Learning Assistance Center. The Cerullo Learning Assistance Center is located in the Pitkin Education Building, in Room L-125. The telephone number is (201) 447-7489. The Learning Assistance Center, staffed with peer and professional tutors, offers free individual and group tutoring, supplemental instruction, and online tutoring for subjects offered at the College. The Center provides alternative approaches to problem solving and organizational skills. Tutors help clarify classroom lectures and textbooks and help students prepare for exams. These services build student self-confidence and reduce fear of failure. The Center is equipped with the latest technology and software, including tapes, books, review sheets, exercises and software.

Services for Students with Disabilities

The Office of Specialized Services/ Deaf Services, located in L-115 in the Pitkin Education Center provides accommodations and auxiliary services to students with disabilities attending Bergen Community College. Students are encouraged to submit documentation to OSS during the early stages of the admission process. The suggested deadlines for submitting documentation are as follows: August 1st for fall semesters, December 1st for spring semesters. For more information please contact our office at 201-612-5270 or at www.bergen.edu/oss.

Sidney Silverman Library

Main Building, Pitkin Education Center, L-wing, 2nd Floor.

Paramus Library Hours: (201) 447-7131 or visit
<http://www.bergen.edu/library/calendar/gcal.htm>

Paramus Service Desk: (201) 447-7970

Meadowlands Location: 1280 Wall Street, Lyndhurst 2nd Floor

Meadowlands Library Hours: <http://www.bergen.edu/library/calendar/gcal.htm>

Meadowlands Service Desk: (201) 301-9692

www.bergen.edu/library

Testing Services

The Bergen Community College Office of Testing Services (OTS) is located in Room S-127. OTS serves the college community by identifying, developing, procuring, administering, processing, and/or evaluating examinations, which meet a variety of administrative and instructional needs. To contact the OTS, please call (201) 447-7202. The Office of Testing Services administers makeup tests as a service for students who, for compelling and exceptional reasons, have missed a scheduled classroom examination. Students must receive prior permission from and make arrangements with their course instructors to take these examinations, under specific conditions, in the Office of Testing Services, Room S-127.

WebAdvisor

WebAdvisor is a web interface that allows students to access information contained in Datatel's Colleague, the administrative database used by Bergen Community College. Students may use WebAdvisor to register for classes, to pay tuition and fees, to view their class schedules, to check grades, to check on progress toward degree requirements, etc. WebAdvisor accounts are available for all students enrolled in credit programs. New students are strongly encouraged to attend an in-person registration or advisement session before using a WebAdvisor account. Eligible students without WebAdvisor user names and passwords may access their WebAdvisor account by going to go.bergen.edu and selecting "I'm new to WebAdvisor." Then, follow the on-screen directions. Check the WebAdvisor FAQ for answers to common questions, such as how to reset your password. Students must have a valid e-mail address on file with the College to use WebAdvisor