

**BIO 362 :: Marine Biology**  
**UNCW Spring 2017**  
**LAB SYLLABUS**

**Location:** Friday Hall 1010

**Time:** Mon, Tues, or Weds, 1:00 to 4:50

**Lab Instructors:**

M:	Emily Fox email: eef3807@uncw.edu Office: CMS
T:	Sean Hardison email: sbh4808@uncw.edu Office: CMS
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**Lecture Instructor:** Dr. J. Wilson White  
office: Friday Hall 1051  
phone: 910-962-3058  
email: whitejw@uncw.edu

**Course website:** <http://people.uncw.edu/whitejw/courses/Bio362/F2017.html>

**Course Description:**

This course is intended for Biology and Marine Biology majors and is designed to build student knowledge of marine organisms and environments in conjunction with lecture material. Laboratory activities are closely linked with class lectures and are designed to give students experiential knowledge and acquaint them with the regional marine fauna and flora.

This syllabus describes the lab component of the course only. See lecture syllabus for additional information on the lecture component of the course.

**Course Catalog Description:**

BIO 362 – Marine Biology. Prerequisite or corequisite: BIO 366. The coastal and oceanic biota and their relationship to the marine environment. Three lecture and four laboratory hours each week.

**Course Goals:**

This course qualifies as a Writing Intensive (WI) course in the UNCW University Studies curriculum.

Student Learning Outcomes (SLOs) for the WI requirement are:

- WI 1. Demonstrate an ability to produce written texts that reflect a knowledge and understanding of disciplinary conventions in terms of audience expectations, genre conventions, and/or citation practices. [Inquiry; Information Literacy; Critical Thinking; Thoughtful Expression]
- WI 2. Demonstrate the ability to employ an iterative writing process that includes invention, drafting, and revision in response to instructor feedback to complete a major writing project or series of written assignments. [Critical Thinking; Thoughtful Expression]

During this course, you will have the opportunity to achieve the following learning goals. This is not an exhaustive list but outlines the key topics that will be covered. Notation in brackets indicate alignment with WI SLOs.

- 1) Identify the key organisms within a variety of marine communities.
- 2) Compare the characteristics (biological, physical, chemical, geological) of various marine habitats.
- 3) Explain the ecological role of important organisms or groups of organisms within a marine community.
- 4) Evaluate, discuss, and critique papers from the scientific literature. [WI-1]
- 5) Learn and demonstrate the ability to write a scientific paper based on data collected in class, including appropriate citation of background literature, hypothesis development, appropriate data analysis and presentation, and discussion of findings in the context of the scientific literature. This writing process for this paper will be iterative, with opportunities for both peer and instructor feedback. [WI-1, WI-2]

### **Required Texts**

Pechenik, J.A. 2007. *A Short Guide to Writing About Biology*. Pearson-Longman Publishing. ISBN: 0-321-38592-6

(Any recent edition of this text is OK)

#### ***And one of the following:***

Gosner, K.L. 1999. *A Field Guide to the Atlantic Seashore*. Peterson Field Guide Series. Houghton Mifflin Harcourt. ISBN-10: 0-618-00209-X

Kaplan, E.H. 1999. *A Field Guide to the Southeastern and Caribbean Seashores*. Peterson Field Guide Series. Houghton Mifflin Harcourt. ISBN-10: 0-618-00211-1

Ruppert, E.E. and R.S. Fox. 1988. *Seashore Animals of the Southeast*. University of South Carolina Press. ISBN-10: 0-872-49535-3

### **Evaluations**

**1. Literature Critiques:** During the semester you will read two papers from the primary literature and write a one-page critique of each paper. Papers will be assigned by the instructor and will be related to material covered in class and lab. You should rely heavily on the information in Pechenik (2007) regarding how to read and critique a scientific paper as well as the grading rubric provided on the course website. The one-page (single-spaced) limit will be

strictly enforced – being concise is critical in modern scientific communication. A good critique will include a statement of critical findings and an evaluation of approach and techniques. Each critique will be worth 10% of your lab grade.

**2. Class Assignments:** You will be required to complete written assignments for most lab exercises; often in the form of handouts/worksheets. Each will be worth 2% of your lab grade. These assignments will be due at the beginning of the lab meeting (i.e., 1 pm) the following week.

**3. Lab Report:** You will prepare a formal lab report following the scientific format (as described by Pechenik [2007] and detailed in the rubric provided on the course website) based on data obtained during the Salt Marsh lab. You will turn in two drafts of this report and receive feedback on each draft (from your peers on draft 1 and from your TA on draft 2), so crafting the report will be a semester-long project with multiple revisions and improvements. Each draft of the lab report is required and constitutes an increasing proportion of your lab grade (first: 4%, second: 10%, final: 35%).

**4. Lab Exam:** An in-lab exam will be used to probe your knowledge of the material studied during labs. Questions will cover all aspects of material studied in each lab, including identification of living or preserved organisms, their distinguishing characteristics, as well as information about habitat, adaptations or physical and biological features of the environments studied, and all related concepts discussed in lab or in the background reading for labs. This assignment constitutes 15% of the lab grade.

**Late Assignments:** All lab assignments are due at 1pm on the day of your lab section, unless otherwise specified. Weekly lab assignments are due the following lab meeting; due dates for other assignments are posted on the course website. Any assignment turned in late will be penalized as follows: for weekly lab assignments and Literature Critiques 10 percentage points will be deducted per 24 hours (or part thereof) from the due date & time; for the Salt Marsh lab report drafts, 20 percentage points will be deducted per 24 hours (or part thereof).

**Attendance:** YOU MUST ATTEND LAB ON THE DAY FOR WHICH YOU ARE REGISTERED. You are required to attend all class meetings. You are expected to arrive on time for, and participate in, all class meetings. *There are no make-up exams or make-up labs.*

**Pre-lab assignments:** Each lab will have a pre-lab assignment associated with it. These are short assignments (a few questions) that require a bit of background reading to ensure you are prepared for the material covered in the lab. The pre-lab assignment must be turned in at the beginning of lab (1 pm). Student who have not completed the pre-lab on time will not be allowed to participate in the lab that day, and thus will not be able to complete the graded lab assignment.

## Grading Policy

The lab grade comprises 33% of the total course grade. The lab grade consists of the following components.

Assignment	Proportion
Lab Report (Draft 1)	0.04
Lab Report (Draft 2)	0.10
Lab Report (Final Draft)	0.35
Lab Exam (1)	0.15
Lab Assignments (8)	0.16
Literature Critiques (2)	0.20
<b>Total</b>	<b>1.00</b>

Note that the various drafts of the lab report comprise 49% of the lab grade. See the lecture syllabus for details on the final course grade.

## Class Meeting Calendar

Week of:	Topic	Comment
Jan 9	Introduction / Properties of Seawater	
Jan 16	<b>Martin Luther King Holiday</b>	<b>No Lab</b>
Jan 23	Plankton	
Jan 30	Nekton / Writing workshop	
Feb 6	Field Trip 1 – Fort Fisher Aquarium	Critique 1 Due
Feb 13	Field Trip 2 – Salt Marsh Communities	
Feb 20	Writing & stats workshop	Draft 1 of paper due (Intro & methods)
Feb 27	Field Trip 3 – Soft-sediment Communities	
Mar 6	<b>Spring Break</b>	<b>No Lab</b> Draft 2 of paper due (entire draft)
Mar 13	Meiofauna	
Mar 20	Tropical Communities	
Mar 27	Field Trip 4 – Cruise	Critique 2 Due
Apr 3	<b>Lab Quiz</b>	
Apr 10	<b>Easter Holiday</b>	<b>No Lab</b>
Apr 17	Marine fisheries management (cruise alternate)	Final Draft of paper due
Apr 24	Classes end	<b>No Lab</b>

## Field Trip Requirements and Recommendations:

We will be taking 4 field trips. Be prepared for appropriate weather conditions. Marine environments tend to be colder, sunnier, and windier than terrestrial habitats. Dress warmly in layers, with lots of sunscreen and a hat. Closed toed shoes are **required** (no sandals, crocs, or flip-flops). Boots are highly recommended, but tennis shoes are adequate. Prepare to get wet and muddy, and dress accordingly.

**State law requires that you wear a seatbelt while traveling in a state vehicle. Therefore, you will wear a seat belt while traveling in a van or other state vehicle.**

## Course policies

**Personal Electronics Policy:** All personal electronics should be turned off and stowed prior to entering class **and on field trips**. Tablets or laptop computers are permitted when used for note taking or other class business. **Computer privileges will be rescinded if you are found using devices inappropriately or off-task during class.**

**Classroom Conduct:** Please treat yourselves, your peers, and instructors with due respect. Feel free to ask questions or state your views in a respectful manner. Remember, your conduct includes what you do, what you say, how you act, and what you wear.

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If you are a person with a disability and anticipate needing accommodations of any type in order to participate in this class, you must notify Disability Services (Westside Hall #1033, 962-7555) provide the necessary documentation of the disability and arrange for the appropriate authorized accommodations. Once these accommodations are approved, please identify yourself to the instructors so that we can implement these accommodations.

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UNCW practices a zero-tolerance policy for violence and harassment of any kind. For emergencies contact UNCW CARE at 962-2273, Campus Police at 962-3184, or Wilmington Police at 911. For University or community resources visit <http://uncw.edu/wrc/crisis.htm>

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The Department of Biology and Marine Biology strongly supports the Academic Honor Code as stated in the "Student Handbook and Code of Student Life", and will not tolerate academic dishonesty of any type.

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Students are encouraged to learn about and use the services of the University Learning Center. Tutoring at ULC is NOT remediation: the ULC offers a different type of learning opportunity for those students who want to increase the quality of their education. ULC services are free to all UNCW students. For more information visit [www.uncw.edu/stuaff/ulc](http://www.uncw.edu/stuaff/ulc)