

## Marine Biology Syllabus

Marine Biology  
COA 301, 301L  
First Summer Term  
June 5–30, 2017

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Teaching Assistant: TBD

The course is designed as an introduction to the study of life in marine environments. We will examine the biology of a variety of organisms and the abiotic and biotic factors that influence their distribution and abundance. The course will be framed by evolutionary and ecological processes that drive patterns of diversity, and will focus primarily on habitats in the northern Gulf of Mexico. This is an intensive five credit hour class, consisting of separate, graded lecture (three hours) and lab (two hours) sections that must be taken concurrently. However, learning is cumulative, and because of the time restraints of this class, topics covered in “lecture” and “lab” will often overlap. As such, fieldwork will make up a large portion of the course, and participation in field excursions is mandatory. Please read the **Fieldwork** section below.

**Lecture:** Unless we are in the field, we will have lectures daily from 8:30 until 11:45. The format will consist of both PowerPoint presentations and “chalk and talk” written notes. A pdf of the PowerPoint presentations will be made available after each class. Please ensure that you take notes during lecture, preferably using a pen or pencil in a notebook.

- **Text:** Jeffrey Levinton, *Marine Biology: Function, Biodiversity, Ecology* 4<sup>th</sup> Edition ISBN 0199857121. Supplemental texts will be on reserve in the library that may be useful to you, and additional readings will be given to you in either a printed or electronic form. The text book is NOT required for you to purchase.
- **Exams:** Exams are **cumulative**, and will be based largely on lecture presentations, readings, discussions, student presentations (only on the final), and will include discussions and observations from field trips.
- **Paper:** You will complete an abstract and a paper on a selected topic. Abstracts will be restricted to 250 words and will be due before the beginning of class on Friday, June 10<sup>th</sup>. The paper is tentatively due before the beginning of class on Monday, June 27<sup>th</sup>. Papers will be based on research from the primary literature, from a list of topics that I will provide. I am also open to suggestions from you if a particular topic is not listed. Instructions for both the abstract and paper will be provided in class.
- **Presentation:** You will be required to give a presentation that is between 12 and 15 minutes. 12 minutes is the ideal number to leave 3 minutes for questions (as you continue with your career the 12+3 presentation is the standard for conferences). The presentation topic will be the same as your paper.
- **Grades:** Lecture grades will be based on two exams, the paper, and presentations. Grades will be calculated as follows:  
Exam 1: 30%                  Exam 2: 35%                  Paper: 25%                  Presentation: 10%

**Laboratory:** The laboratory section of the course will include both field excursions and lab exercises. Lab exercises will be related to the day’s lecture topic.

- **Laboratory/field notebook:** You should keep and have a notebook with you at all times! Your notebook will not be graded, but the information that is disseminated during field/ lab activities will be on quizzes and the practical. Keeping information in your notebook will also be very helpful when writing your lab reports.

## Marine Biology Syllabus

- **Lab reports:** You will be required to write two lab reports, but these will be group lab reports. Each report needs to include an Abstract, Introduction, Methods, Results, Discussion, and Literature Cited. Tentatively, one report will compare two different seagrass communities and the other will examine the biota of the lower Pascagoula River estuary.
- **Boat trips:** When we have a boat day, the boat leaves the pier at **8 am!!!** This means be on board the vessel before 8 am.
- **Fieldwork:** In addition to boat trips, we will spend some of our lab time outdoors. Students will be held responsible for information discussed by the instructor and teaching assistant during field excursions. Please refer to the student handbook regarding appropriate preparation and dress for fieldwork. We will be conducting activities in clear to brown water, in marshes to beaches, and around seagrass beds to sharp oysters; therefore, flip-flops, sandals, crocks, and bare feet **are not permissible**. Please bring an old pair of sneakers that you do not mind ruining, or purchase a cheap pair of sneakers (thrift stores are great for this!). Most “aquashoes” are also not permissible because they slip off in mud. Footwear that protects the entire foot **is also required** on all USM field trips and vessels. Sunscreen, sunglasses, and clothing that minimizes sun exposure are highly recommended. You may wear a swimsuit under your clothes if you anticipate getting wet. We **will** snorkel on some trips; snorkel gear will be provided, but you may bring your own if you have it.
- **Participation:** In addition to the execution of lab exercises and field trips, you will be expected to pitch in and help as needed. All students will assist in maintaining/cleaning the lab space, loading/storing equipment, recording data, and working gear/instruments.
- **Grades:** Lab grades will be based on one practical, quizzes, two lab reports, and participation in activities/trips. Grades will be calculated as follows:  
Practical: 35%    Lab report x 2: 22.5% total    Quizzes: 10%    Participation: 10%

**Grading scale:** All grades (lecture and lab) will be assigned according to a ten-point scale:  
100-90 = A    89-80 = B    79-70 = C    69-60 = D    <59 = F

**Extra credit:** There will be no extra credit assignments, but exams may have a question or two.

**Course Schedule:** The schedule outlined below is a very, very **tentative** list of topics we will cover and the approximate timeline. Dates/topics are subject to change due to changes in field trip schedules (weather happens, machinery breaks down, and plans change).

### **Introduction to the Marine Environment**

Water and Basic Oceanography

### **Marine Organisms**

Marine Microbes

Multicellular Primary Producers

Marine Invertebrates

Marine Fishes

Marine Reptiles, Birds, and Mammals

### **Structure and Function of Marine**

#### **Ecosystems**

Estuaries and Salt Marshes

Shallow Water/Subtidal Communities

Tropical Communities

Epipelagic Communities

Deep Sea Communities

## Marine Biology Syllabus

**Plagiarism:** As stated in the undergraduate bulletin: Plagiarism is scholarly theft, and it is defined as the unacknowledged use of secondary sources. More specifically, any written or oral presentation which the writer or speaker does not distinguish clearly between original and borrowed material constitutes plagiarism. Because students, as scholars, must make frequent use of the concepts and facts developed by other scholars, plagiarism is not the mere use of another's facts and ideas. However, it is plagiarism when students present the work of other scholars as if it were their own work. **Plagiarism is a serious offense.** An act of plagiarism may lead to a failing grade on the paper and in the course, as well as sanctions that may be imposed by the student judicial system.

### Disability Accommodations

If a student has a disability that qualifies under the Americans with Disabilities Act (ADA) and requires accommodations, he/she should contact the Office for Disability Accommodations (ODA) for information on appropriate policies and procedures. Disabilities covered by ADA may include learning, psychiatric, physical disabilities, or chronic health disorders. Students can contact ODA if they are not certain whether a medical condition/disability qualifies.

#### Address:

The University of Southern Mississippi  
Office for Disability Accommodations  
118 College Drive # 8586  
Hattiesburg, MS 39406-0001

**Voice Telephone:** 601.266.5024 or 228.214.3232

**Fax:** 601.266.6035

Individuals with hearing impairments can contact ODA using the **Mississippi Relay Service** at 1.800.582.2233 (TTY) or emailing ODA at [oda@usm.edu](mailto:oda@usm.edu).

### Academic Integrity

All students at the University of Southern Mississippi are expected to demonstrate the highest levels of academic integrity in all that they do. Forms of academic dishonesty include (but are not limited to):

1. Cheating (including copying from others' work)
2. Plagiarism (representing another person's words or ideas as your own; failure to properly cite the source of your information, argument, or concepts)
3. Falsification of documents
4. Disclosure of test or other assignment content to another student
5. Submission of the same paper or other assignment to more than one class without the explicit approval of all faculty members' involved
6. Unauthorized academic collaboration with others
7. Conspiracy to engage in academic misconduct

Engaging in any of these behaviors or supporting others who do so will result in academic penalties and/or other sanctions. If a faculty member determines that a student has violated our Academic Integrity Policy, sanctions ranging from resubmission of work to course failure may occur, including the possibility of receiving a grade of "XF" for the course, which will be on the student's transcript with the notation "Failure due to academic misconduct." For more details, please see the University's [Academic Integrity Policy](#). Note that repeated acts of academic misconduct will lead to expulsion from the University.