



MARINE BIOLOGY LABORATORY

OCB 4043L-001 (10246)(2 Credits)

Fall 2020

(Pre-requisite: BSC 1010, BSC 1010L, BSC 1011, BSC 1011L
And ZOO 2203, ZOO 2003L or PCB 4043

(Corequisite: OCB 4043) (request to unlink:
<https://cescos.wufoo.com/forms/r1jqgy9m1jbcqdk/>)

Biology Elective

Wednesdays 3:30 - 7:20 pm, SC 143

INSTRUCTOR of RECORD: **Dr. W. Randy Brooks**

E-MAIL ADDRESS: wbrooks@fau.edu

TEACHING ASSISTANT: **Angela Field**

EMAIL ADDRESS: afield2014@fau.edu

OCB OFFICE HOURS: Wednesday, 10:00 am – 12:00 pm, SC 256

COURSE CONTENT: Laboratory experiences of major concepts of marine science with an emphasis on local and regional habitats

Quickest Trip to a Bachelor's Degree

GENERAL ADVISING TIPS & STRATEGIES

For complete information, please visit the [Biology Advising Website](http://biology.fau.edu/academics/quickesttriptoabachelorsdegree.php) at
<http://biology.fau.edu/academics/quickesttriptoabachelorsdegree.php>

Don't waste your time and money! Use the below 4 tips to get and stay on track for a timely graduation!!!!

Step 1) Learn how to navigate the "MY FAU" web portal. Familiarize yourself with features available through "FAU Self-Service" located within the "Home" tab as well as the features available in the "Students", "Money Matters!" and "Success Network" tabs (<https://myfau.fau.edu/cp/home/displaylogin>)

Step 2) Use the flight plans available on the FAU website to build your own academic plan. The flight plans are suggested four-year course schedules leading to completion of the Biology B.A. or the Biology B.S. (blueprints for graduation within four years!). For Biology majors who wish to apply to a medical or professional program upon graduation, a suggested Pre-Health version of the Biology B.S. flight plan is also available (<http://biology.fau.edu/academics/quickesttriptoabachelorsdegree.php>).

Step 3) Use the "Departmental Schedule" (not the "Searchable Schedule") to see all courses available (by department) within a given semester when working to schedule your classes (https://banner.fau.edu/FAUPdad/lwskdsch.p_dept_schd)

Step 4) Use the Degree Audit Reporting System (DARS) to keep track of which requirements you still need to fulfill in order to graduate. When running your degree audit, you may audit your progress against the catalog year in which you first entered FAU (provided that you have maintained continuous enrollment) OR the current catalog year. You may also select alternate degree options to see if you are closer to completing one degree than another (e.g. compare the Biology B.S. with the Biology B.A.) (<https://www.fau.edu/registrar/graduation/degree-audit.php>)

***Please note the below [excess credit hour policy](#). It is your responsibility to work with your academic advisor to minimize additional costs to you associated with the completion of excess credits.

Credit Hour Policy: Excess Hours Surcharge

Florida Statute 1009.286 defines "excess hours" as credit hours that exceed the completion requirements for a baccalaureate degree program at state universities. For students enrolling in a state university or a Florida State College System institution for the first time in or after the fall 2009 semester, a tuition rate surcharge will be applied for excess hours. The surcharge is assessed only on the tuition portion of the semester hour cost, not on the fees. The amount of the surcharge and the allowable "excess hours" are determined by the initial term of entry as indicated in the catalog. For the complete Policy see <http://www.fau.edu/academic/registrar/FAUcatalog/academics.php#excess>.

Course Description:

An overview of the diversity of marine algae, plants and animals, emphasizing the marine biota of Florida, with field trips to local habitats.

Course Objectives

This course is intended to familiarize students with the dynamics of marine ecosystems (physics, chemistry, & biology), and some important ecological interactions found within the marine environments of southern Florida. Students participate in multiple class field trips and will be instructed on basic field sampling techniques. The laboratory portion of this class will be comprised of short lectures, as well as data collection and analysis of specimens collected in the field by the instructor and students.

Invertebrate Zoology Prerequisite Policy: To study marine science, among other topics, a strong foundation in animal taxonomy is required. While most biology students (through classes and perhaps life experiences) will inherently be familiar with vertebrates, most marine animals are invertebrates - thus, the reason for requiring an **Invertebrate Zoology** course (Lecture & Lab). However, I have allowed "some" students to take this course (lecture and/or lab) without this prerequisite. To ensure that all students are at least minimally prepared



with such background knowledge, **I am requiring the following work be completed and emailed to me (wbrooks@fau.edu) by 1pm on Friday, August 22nd** (this date is the last date to drop the course without the liability of fee payment for the course):

1) Read the following Chapters in the textbook **Introduction to Marine Biology** by Karleskint et al., 2013 (4th edition)(Must use this edition):

A. Chapter 8: Lower Invertebrates

B. Chapter 9: Higher Invertebrates

2) Do all **Multiple Choice, Matching, Short Answer** and **Thinking Critically** questions on the following pages:

A. Chapter 8: pp. 212-213

B. Chapter 9: pp. 254-255

Note: 1-2 paragraphs each will suffice for the Short Answer and Thinking Critically section. For the multiples choice questions, just type the question number followed by the choice (e.g., 1. = b). Your work is to be done independently – no group effort!

To validate that students have taken **Invertebrate Zoology**, I will require the 1st day of class a hard copy of your transcript highlighting that this course has been completed with a minimum grade of C-. Those students taking **Invertebrate Zoology** concurrently are also required to complete the assignment. Without such validation, all students will be required to complete the assignment above. **You must complete the assignment by the due date and time; otherwise, you will be withdrawn from the class automatically.**

Canvas: I will be using Canvas, an online program for managing communication and grade information.

Please go to the following website: <https://canvas.fau.edu/>

University Attendance Policy: Students are expected to **attend all** of their scheduled University classes and to satisfy all academic objectives as outlined by the instructor. The effect of absences upon grades is determined by the instructor, and the University reserves the right to deal at any time with individual cases of non-attendance. Students are responsible for arranging to make up work missed because of legitimate class absence, such as illness, family emergencies, military obligation, court-imposed legal obligations or participation in University approved activities. Examples of University-approved reasons for absences include participating on an athletic or scholastic team, musical and theatrical performances and debate activities. It is the student's responsibility to give the instructor notice prior to any anticipated absences and within a reasonable amount of time after an unanticipated absence, ordinarily by the next scheduled class meeting. Instructors must allow each student who is absent for a University-approved reason the opportunity to make up work missed without any reduction in the student's final course grade as a direct result of such absence (University Catalogue, 2018-2019).

Attendance on First Day of Class: "Students are required to attend the first day of class for any course in which they are registered. If a student misses the first day of class for any reason, the student may be administratively withdrawn from the course." (University Catalogue, 2018-2019).

Marine Biology Field Studies and Laboratory Attendance Policy:

Lab

This course is experiential and involves both laboratory and field studies, including traveling to and from sampling locations. Be on time. There is no excuse for being late. **Students should attend every lab;** however, **you are permitted to miss one lab class** for the entire semester for medical or other significant reasons **that can be verified by documentation.** Those students missing multiple labs with documentation will be required to take an incomplete or withdraw from the lab. Students who show up late or miss lab without providing verifiable documentation will have significant participation points subtracted from their final course grade. If you are unclear on any of these policies, speak with me after our first class.

Field Trips

There will be two field trips to the Florida Keys. **Attendance for these two trips is mandatory!!!!** Students who skip either of these trips will receive a failing course grade – no exceptions. Those students with verifiable, extraordinary circumstances who miss either of these field trips must take an incomplete (if the situation is deemed credible) and take the same field trip the next time the course is offered. Please take the time to check the dates of field trips on the following page to confirm that you do not have any conflicts. There will be no scheduling conflicts accepted; so check your personal schedule before the official add-drop deadline (Friday, August 22nd)

Lab Manual: We produce the Lab Manual and charge \$15 (Lab manual available during 1st or 2nd lab class)

Code of Academic Integrity Policy Statement: *Students at Florida Atlantic University are expected to maintain the highest ethical standards. Academic dishonesty 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.*
https://www.fau.edu/ctl/4.001_Code_of_Academic_Integrity.pdf

MBFSL Honor Code: Just don't cheat. Students who are caught cheating are automatically in violation of the university's honor code. Cheating will be grounds for immediate dismissal from the class and may go under review by the university.

Safety: Be safe in the lab. I will give you a complete introduction to safety equipment (location and how to use) as well as individual instruction before any lab or field trip to address potential risks. In general, take your time and arrive familiar with and prepared for the day's activities each time we meet.

MBFSL Fall 2020 Tentative Schedule (August 22nd – December 18th)

<u>Week</u>	<u>Dates</u>	<u>Class Exercises</u>	<u>Topics</u>	<u>Deadlines/Locations</u>
Week 1	August 21 st	Syllabus/ Exercise 1	Properties of Seawater	
Week 2	August 28 th	Exercise 3 A (& B if enough time)	Marine Invertebrate Taxonomy/ Coral ID/ Swim test	<i>Have snorkel gear purchased Bring swimsuit & OWL CARD</i>
Week 3	September 4 th	Exercise 3 C & D	Clam, urchin, anemone dissection/ sediment cores	@Boca Raton beaches
Week 4	September 11 th	Exercise 12	Marine Sci. Institutions	Harbor Branch Tour <i>Lab Report 1 Due</i>
Week 5	September 18 th	Exercise 7	Coral ID Practice/ Coral Reef Ecology	Snorkel @ LBS
.....	September 21 – 22nd	Field Trip Collect data	Marine Lab (MRDF), Key Largo, FL
Week 6	September 25 th	Exercise 2	Plankton Tows/ Practice Snorkeling	Snorkel @ Deerfield Beach
Week 7	October 2nd	EXAM 1 & PRACTICAL 1	<i>Exercises 1, 2, 3, & 7</i>
.....	October 5th	Field Trip Collect Data & Algae	Marine Lab (MRDF), Key Largo, FL
Week 8	October 9 th	Exercise 6	Algae/Aquatic Plants	
Week 9	October 16 th	Exercise 8	Coastal Ecology <i>Hiking/wading involved</i>	John D. Macarthur State Park, Palm Beach <i>Abstracts Due</i>
Week 10	October 23 rd	Exercise 4	Fish	Snorkel @ Blue Heron Bridge, W. Palm Beach
Week 11	October 30 th	Exercise 10	Intertidal Zones & Fouling Communities <i>Hiking/wading involved</i>	Spanish River Rocks, Boca Raton <i>Lab Report 2 Due</i>
Week 12	November 6 th	Exercise 11	Marine Reptiles and Mammals	Gumbo Limbo Nature Center, Boca Raton
Week 13	November 13th	EXAM 2 & PRACTICAL 2	<i>Exercises 4, 6, 8, 10, & 11 Lab Notebooks Due</i>
Week 14	November 20 th	Exercise 13 – Presentations	Student Presentations	
Week 15	November 27 th	Exercise 13 – Presentations	Student Presentations	
Scheduled Final Exam	Dec 11th 1:15 – 3:45pm	Exercise 13 – Presentations	Student Presentations	

**Note: Assignment deadlines are subject to changes. Major weekend field trip dates are tentative until departmental budget approvals are confirmed.*

Grading Policy

There are 500 total points available for students to earn in this class. The following grading scale is used:

Letter	Percentage (%)	Points (500 total)
A	90% and above	450 and above
B+	87%-89%	438 – 449
B	83%-86%	417 – 437
B-	80%-82%	400 - 416
C+	77%-79%	388 – 399
C	73%-76%	367 – 387
C-	70%-72%	350 – 366
D+	67%-69%	335 – 349
D	63%-66%	317 – 334
D-	60%-62%	300 – 316
F	59% and below	299 and below

Grade Breakdown

Assignment	Total Points	Date
Lab Report 1	30	September 11 th
Exam 1	75	October 2 nd
Presentation Abstract	5	October 16 th
Lab Report 2	70	October 30 th
Exam 2	100	November 13 th
Lab Notebook	20	November 13 th
Presentation (Exam 3)	100	November 20 th November 27 th December 11 th
Participation/ Class Assignments	100	N/A

Students with Special Needs

“In compliance with the Americans with Disabilities Act Amendments Act (ADAAA), students who require reasonable accommodations due to a disability to properly execute coursework must register with 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. For more information, please visit the SAS website at www.fau.edu/sas/.

The SAS office provides many valuable services for its registered students. It is important to make these arrangements in advance and allow your instructor ample time to prepare for and make all necessary accommodations. Additionally, ***certain aspects of Marine Biology lab require physical activities that might be restrictive for some types of disabilities.***

Religious Accommodations: *Students who wish to be excused from coursework, class activities or examinations must notify the instructor advance of their intention to participate in religious observation and request an excused absence.*

Counseling and Psychological Services (CAPS) Center: *“Life as a university student can be challenging physically, mentally and emotionally. Students who find stress negatively affecting their ability to achieve academic or personal goals may wish to consider utilizing FAU’s Counseling and Psychological Services (CAPS) Center. CAPS provides FAU students a range of services – individual counseling, support meetings, and psychiatric services, to name a few – offered to help improve and maintain emotional well being. For more information, go to <http://www.fau.edu/counseling>”*