

Department of Biological Sciences
BACHELOR OF SCIENCE
PROGRAM OF STUDY

Marine Biology BS
(MRNBIO:BS)

Revised as of Fall 2026. Please meet with your advisor each semester for the latest advising sheet, as program requirements, distribution designations and/or prerequisites may change.

PLEASE READ COURSE DESCRIPTIONS in the UNDERGRADUATE COURSE CATALOG (catalog.fiu.edu). Most elective courses have prerequisites that must be taken BEFORE you take the elective course. To see your own progress, you can view your Panther Degree Audit from your My FIU. If you need assistance or have any questions, you are encouraged to see an advisor prior to each registration period by making an appointment via the Panther Success Network. All Science and Math courses must be completed with a grade of “C” or better to satisfy the requirements. The Marine Biology BS degree has enrollment and completion success markers that will be used to monitor your progress in the major. In cases where students are not making good progress, a change of major may be required.

LOWER DIVISION PROGRAM

Course		Credit Hours
OCB 1930	Marine Biology at FIU (Traditionally offered in Fall Only)	1
BSC 2010 & 2010L	General Biology I and Lab	3 + 1
BSC 2011 & 2011L	General Biology II and Lab	3 + 1
CHM 1045 & 1045L	General Chemistry I and Lab	3 + 1
CHM 1046 & 1046L	General Chemistry II and Lab	3 + 1
CHM 2210 & 2210L	Organic Chemistry I and Lab	4 + 1
CHM 2211 & 2211L or CAP 2752	Organic Chemistry II and Lab* or Data Science for All*	3 + 1 or 3
General Physics I	Choose 1 course: PHY2053 – Physics without Calculus I (Uses Algebra and Trigonometry) PHY2048 – Physics with Calculus II (Uses Calculus I and II)	4
PHY2048L	Physics I Lab	1
General Physics II or CAP 2752	Choose 1 course: PHY2054 – Physics without Calculus I (Uses Algebra and Trigonometry)* PHY2049 – Physics with Calculus II (Uses Calculus I and II)* or Data Science for All*	4 or 3
PHY2049L	Physics II Lab*	1
MAC2311	Calculus I Students should take MAC 1147 as a prerequisite for MAC 2311. Only students who have started the MAC 1114/MAC 1140 sequence at their previous institution may request permission from the Math Department to get into the next course in the sequence.	4
MAC2312 or Statistics I and II	Choose 1 option Calculus II or STA 2023 - Statistical Methods* STA 3123 - Statistics for Behavioral and Social Sciences II* *Consult with academic advisor to discuss the possibility of substituting this course with other approved Statistics courses.	4 or 3 3

*Data Science for All – CAP 2752 (3) can be used to substitute either Organic Chemistry II and Lab or Physics II and Lab for the Marine Biological Sciences BS. Please consult with your advisor to confirm this course falls in the appropriate category on the degree audit; also confirm whether this course is appropriate for career goals.

Note: The Department of Biological Sciences does not accept MAC2233 (Applied Calculus) as a substitute for MAC2311 (Calculus I). Calculus I and Statistics I together do not satisfy the math requirement. STUDENTS WHO TAKE STATISTICS I AND II MUST ALSO COMPLETE CALCULUS I.

UPPER DIVISION PROGRAM (35 credits)

Core Course	Course Legend*	Credit Hours
	f = offered in Fall s = offered in Spring ss = offered in Summer	
BSC 3848 (f/s/ss)	Junior Seminar in Biology: Evidence, Communication & Career**	1
PCB 3043 (f/s/ss)	Ecology	3
PCB 3063 (f/s/ss)	Genetics	3
PCB 4674 (f/s/ss)	Evolution	3
OCB 3043 (f/s)	Marine Biology & Oceanography	3
OCB 3043L (f/s)	Marine Biology & Oceanography Lab	1
OCP 3002 (f/s)	Physical Oceanography	3

* Course availability is subject to change; discuss with your Academic Advisor.

** Course designed for Marine Biology majors in their junior year, this course prepares students for research, advanced coursework, and post-graduation pathways.

5 Upper Division Elective Courses – Distribution Requirement (15 credits) – One Elective lecture course in each of the following Areas plus one additional class from any of the four areas:

- ☐ Area A: Biology and Physiology of Marine Organisms (3)
- ☐ Area B: Marine Ecology and Conservation Biology (3)
- ☐ Area C: Field Marine Biology Experience (3)
- ☐ Area D: Marine Molecular Biology (3)
- ☐ Additional Upper Division Marine Biology elective in any of the areas above (3)

ELECTIVES COURSES - DISTRIBUTION REQUIREMENT

Courses listed may be subject to change. Please confirm course availability by searching for courses on your MyFIU.

Course Legend: f = offered in Fall s = offered in Spring ss = offered in Summer * = not offered this academic year		
Area A: Biology and Physiology of Marine Organisms		
Course		Credit Hours
BOT 4402 (s)	Marine Botany	3
BOT 4404C (f)	Phycology	4
OCB 4303 (s)	Biology of Marine Mammals	3
PCB 4723 (s)	Animal Physiology	3
PCB 4724 (*)	Comparative Physiology	3
PCB 4776 (*)	Physiology and Behavioral Ecology of Marine Animals	3
ZOO 3205C (f)**	Invertebrate Zoology	3
ZOO 4454 (s)	Fish Biology	3

** This course may be accepted for Area A or C, but not both. Please discuss this with your assigned Academic Advisor.

Area B: Marine Ecology and Conservation Biology		
Course		Credit Hours
OCB 3264 (f)	Coral Reef Biology	3
OCB 4070 (f)	Coastal Marine Conservation	3
OCB 4633 (f)	Marine Community Ecology	3
OCB 4711 (s)	Fisheries Science	3
PCB 4401 (f)	Global Change Ecology	3
PCB 4414 (s/ss)	Behavioral Ecology	3
PCB 4467C (f/s/ss)	Marine Protected Areas/Marine Reserves	4

Area C: Field Marine Biology Experience		
Course		Credit Hours
BSC 3915 (f/s/ss)**	Student Research Lab	3
BSC 4473C (f/s/ss)***	Scientific Diving	3
BSC 4970 (f/s/ss)**	Honors Thesis	3
OCB 3075C (s)	Mariculture for Conservation and Restoration	4
OCB 4004 (*)	Biological Oceanography at Sea I	3
OCB 4005C (s)	Biological Oceanography at Sea II	4
OCB 4104C (f)	Field Methods in Marine Ecology	4
ZOO 3205C (f)****	Invertebrate Zoology	4

**Independent study with a Marine Biology Faculty member; must be approved by the Undergraduate Program Director.

***Introduction to Scientific Diving Prerequisites: (OCB3043+lab or PCB3043+lab or CHS4600 or OCE3014), open water diving certification, permission of the instructor, FIU Diving Medical clearance, pass standardized swim test, at least 18 years old. Lab fee of \$1,158 applied. Does not count as an Upper Division Marine Biology Lab.

****This course may be accepted for Area A or C, but not both. Please discuss this with your assigned Academic Advisor.

Area D: Marine Molecular Biology		
Course		Credit Hours
BSC 4434 (s)	Bioinformatics for Biologists	3
MCB 4603 (f)	Microbial Ecology	3
PCB 4023 (f/s/ss)	Cell Biology	3
PCB 4233(f/s)	Immunology	3
PCB 4524 (f/s)	Molecular Biology	3
PCB 4553 (s)	General Population Genetics	3
PCB 4561 (s)	Epigenetics	3

4 Upper Division Laboratory Requirement (4 credits)

- ☐ 4 Upper Division Marine Biology Labs (1 credit each)

Marine Biology Labs	
Courses	Credit Hours
BOT 4402L: Marine Botany (*)	1
BOT 4404C: Phycology (f)	4
PCB 3043L: Ecology Lab (f/s/ss)	1
PCB 3063L: Genetics Lab (f/s/ss)	1
PCB 4023L: Cell Biology Lab (f/s/ss)	1
PCB 4467C: Marine Protected Areas/Marine Reserves (f/s/ss)	4
OCB 3043L: Marine Biology and Oceanography (f/s)	1
OCB 3075C: Mariculture for Conservation and Restoration (s)	4
OCB 4005C: Biological Oceanography at Sea II (s)	4
OCB 4104C: Field Methods in Marine Ecology (f)	4
ZOO 3205C: Invertebrate Zoology (f)	4

Other courses, *as approved in advance* by the Marine Biology Undergraduate Program Director, may also be used. Prerequisites may be waived with the permission of the instructor only.

Other graduation requirements:

University Requirements

- ☐ UCC: University Core Curriculum (Note: Transfer students with an AA degree from a Florida College System or other Florida State University are exempt from the UCC).
- ☐ FLENT/FLEX Foreign Language requirement
- ☐ Summer Enrollment: Students entering the University with fewer than 60 hours must complete 9 hours of coursework during the summer semester
- ☐ Civic Literacy Requirement
- ☐ 120 Total credit hours required

For more information on these requirements, please visit: <https://transfer.fiu.edu/transfer-101/guidesresources/graduation-requirements/index.html>

College of Arts, Sciences & Education Requirements

- ☐ 45 Upper Division hours required
- ☐ 9 Credit hours of courses outside the major required within the last 60 hours of enrollment

Success Markers are guideposts that help students remain on track for graduation. The Biological Sciences Department has identified important courses in the major that indicate you are on track for successful degree completion.

- 30 credits: Complete OCB 1930 with a C or better
- 30 credits: Complete MAC 1105 (or higher) with a C or better
- 30 credits: Complete CHM 1045/CHM 1045L with a C or better
- 45 credits: Complete MAC 1147 (or higher) with a C or better
- 45 credits: Complete BSC 2010/2010L or BSC 2011/2011L with a C or better
- 45 credits: Enroll in CHM 1046/1046L
- 60 credits: Enroll in CHM 2210/L or PHY 2048 (or PHY 2053)/PHY 2048L
- 75 credits: Pass CHM 2210/L and PHY 2048 (or PHY 2053)/2048L with a C or better
- 75 credits: Enroll in CHM 2211/L and PHY 2049 (or PHY 2054)/PHY 2049L
- 90 credits: Complete OCB 3043 and OCB 3043L with a C or better
- 90 credits: Complete PCB 3043 and PCB 3063 or PCB 4674 with a C or better

In cases where students are not making good progress, a change of major may be required.

Minor in Marine Biology: The requirements to complete a Minor in Marine Biology can be found here: <https://case.fiu.edu/advising/case-minor/marine-biology-minor.pdf>. Students who would like to request the addition of a minor may submit their request online at: <https://go.fiu.edu/CASEminor>