



Florida International University

Department of Biological Sciences

For Summer
and Fall 2015
& Spring 2016

MARINE BIOLOGY BACHELOR OF SCIENCE PROGRAM OF STUDY

Students are encouraged plan their own course selections; PLEASE READ COURSE DESCRIPTIONS in the UNDERGRADUATE COURSE CATALOG at 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 see and print out your own PantherSoft Degree Audit (PDA) at my.fiu.edu. If you need assistance or have any questions you are encouraged to see an advisor prior to each registration period. There is a dedicated Marine Biology Advising Office at the Biscayne Bay Campus (e-mail mbioadv@fiu.edu), as well as a Marine Biology academic advisor at Biscayne Bay Campus located at Academic One, Room 300. Faculty in Biological Sciences, including Marine Biology faculty, are also available to provide academic and career advising. All Science and Math courses must be completed with a grade of "C" or better to satisfy the requirements.

LOWER DIVISION PROGRAM – MARINE BIOLOGY

- UCC – University Core Curriculum (Note: Transfer students with an AA degree from a Florida State System Community College or University are exempt from the UCC)
- Students entering the University with fewer than 60 hours must complete 9 hours of coursework during the summer semester
- Foreign Language requirements (see page 3)
- General science requirements

General Science Courses

- General Biology I and II

FIU () = credit hours

BSC 1010(3)+Lab(1)
BSC 1011(3)+Lab(1)

MDC equivalent

BSC 2010+Lab or BOT 1010+Lab
BSC 2011+Lab ZOO 1010+Lab

- General Chemistry I and II

CHM 1045(3)+Lab(1)
CHM 1046(3)+Lab(1)

CHM 1045+Lab or CHM 1040+Lab
CHM 1046+Lab CHM 1041+Lab

- Organic Chemistry I and II

CHM 2210(4)+Lab(1)
CHM 2211(3)+Lab(1)

CHM 2210+Lab
CHM 2211+Lab

- General Physics I and II

PHY 2053(4)+2048L(1)
PHY 2054(4)+2049L(1)
without Calculus
or
PHY 2048(4)+Lab(1)
PHY 2049(4)+Lab(1)
with Calculus

PHY 2053+Lab
PHY 2054+Lab

PHY 2048+Lab
PHY 2049+Lab

- Mathematics - Students must complete sub-requirements (A) and (B)

(A) Calculus I

MAC 2311(4)

MAC 2311

(B) Calculus II

MAC 2312(4)

MAC 2312

or

Statistics I and II

STA 2122(3) & 3123(3)

or

STA 3111(3) & 3112(3)

Note: Calculus I and Statistics I together do not satisfy the requirement

STUDENTS WHO TAKE STATISTICS I AND II MUST ALSO COMPLETE CALCULUS I

UPPER DIVISION PROGRAM – MARINE BIOLOGY

Required Courses		Credits	Prerequisites (grades of C or higher)
Ecology	PCB 3043 ● ◇ ■	3	BSC 1010 + BSC 1011
Genetics	PCB 3063 ● ◇ ■	3	BSC 1010
Cell Biology	PCB 4023 ● ◇ ■	3	PCB 3063 + CHM 1046
Evolution	PCB 4674 ● ◇ ■	3	PCB 3063 + PCB 3043
Marine Biology and Oceanography	OCB 3043 ◇ ■	3	BSC 1010 + BSC 1011
Marine Biology and Oceanography Lab	OCB 3043L ◇ ■	1	(coreq. or prereq.) OCB 3043
Physical Oceanography	OCP 3002 ◇	3	CHM 1045, (PHY 2048 or PHY 2053)
Senior Seminar	BSC 4931 ● ◇ ■	1	Senior standing (≥ 90 credits); (coreq. or prereq.) PCB 3043, PCB 3063, PCB 4023, PCB 4674

□ 4 Upper Division Marine Electives (at least 12 credits from among the following courses)

Marine Botany	BOT 4402C	4	BSC 1011
Phycology	BOT 4404 ■	3	BSC 1010 + BSC 1011
Ecology of Marine Vascular Plants	BOT 5647	3	
Marine Natural Products	CHM 5285	3	
Marine Chemistry	CHS 4600	3	CHM 2211 + Lab, ([CHM 3120 + Lab] or permission of instructor)
Marine Geology	GLY 4730	3	(OCE 3014 or OCP 3002), GLY 1010
Coral Reef Biology	OCB 3264	3	BSC 1011
Biological Oceanography at Sea I	OCB 4004	3	OCB 3043
Biological Oceanography at Sea II	OCB 4005C	4	OCB 4004
Coastal Marine Conservation	OCB 4070	3	(OCB 3043 or PCB 3043)
Biology of Marine Mammals	OCB 4303	3	BSC 1010 + BSC 1011, (PCB 3043 or OCB 3043)
Marine Microbial Ecology	OCB 4632	3	BSC 1010 + BSC 1011, OCB 3043
Marine Community Ecology	OCB 4633 ■	3	PCB 3043
Fisheries Science	OCB 4711	3	BSC 1010 + BSC 1011
Intro. to Wetland Ecology and Management	PCB 4452	3	PCB 3043
*Marine Protected Areas	PCB 4467C ◇	4	PCB 3043 is strongly recommended
Animal Physiology	PCB 4723 ■	3	BSC 1010 + BSC 1011, CHM 2211
Comparative Physiology	PCB 4724 ◇	3	BSC 1010 + BSC 1011, CHM 2210
Endocrinology	PCB 4805 ■	3	BSC 1011, CHM 2211
Invertebrate Zoology	ZOO 3205C ◇	4	BSC 1010 + BSC 1011
Fish Biology	ZOO 4454 ■	3	BSC 1010 + BSC 1011, PCB 3043
Field Methods in Marine Ecology	OCB 4104C ■	4	OCB 3043 or PCB 3043

● offered in Summer 2015; ◇ offered in Fall 2015; ■ offered in Spring 2016; * discipline-specific Global Learning course

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.

□ 4 Upper Division Labs – OCB 3043L plus 3 additional upper division labs. Labs may be selected from any Upper Division Required or Marine Elective courses (co-requisite or prerequisite: the corresponding lecture course). Course numbers followed by the letter C count as both a lecture and a lab.

Upper Division Labs offered in Summer 2014: PCB 3043L, PCB 3063L, PCB 4023L.

Upper Division Labs offered in Fall 2014: OCB 4104C, ZOO 3205C, PCB 4467C, OCB 3043L, PCB 3043L, PCB 3063L, PCB 4023L

Upper Division Labs offered in Spring 2015: BOT4404L, OCB 3043L, PCB 3043L, PCB 3063L, PCB 4023L,

□ Global Learning – One Global Learning foundations course (part of the UCC) and a second discipline-specific Global Learning course offered by any FIU department. See goglobal.fiu.edu/courses for a list of acceptable courses. (Note: Transfer students with an AA degree from a Florida State System Community College or University may take one GL foundations course and a second discipline-specific GL course, or two discipline-specific GL courses offered by any FIU department.)

- 9 credit hours of courses outside the major (see page 3) within the last 60 hours of enrollment
- 120 total credit hours required for graduation, including a minimum of 48 upper division (3000- and 4000-level courses)

GENERAL REMARKS – MARINE BIOLOGY

↗ Total number of credit hours needed for graduation	120
↗ Number of upper division credit hours needed	48
↗ Upper division credit hours with 10 biology or marine courses, 4 labs and Senior Seminar (Note, transfer students with >60 credits, must take at least half of their upper division credits at FIU)	35
↗ Credit hours needed outside major (see below) in last 60 hours of enrollment	9

Note: For the B.S. in Marine Biology, “outside the major” means outside all the Biological Sciences prefixes BCH, BOT, BSC, ENY, MCB, OCB, PCB, ZOO, and outside of the following courses in other departments: CHM 5285 Marine Natural Products, CHS 4600 Marine Chemistry, GLY 4730 Marine Geology, OCE 3014 Oceanography, OCP 3002 Physical Oceanography. Take these 9 credit hours outside the major from upper division courses to help you reach the 48 hours needed for graduation

Ex. 35 + 9 = 44 upper division credit hours

↗ Foreign Language requirements - You must satisfy the following two requirements:

- 1) FIU Flent/Flex requirement – 2 years of high school foreign language satisfy Flent/Flex
- 2) College of Arts & Sciences (CAS) requirement – With a grade of C or better, the student may meet the requirement by completing
 - a) the second semester of a two semester sequence of a basic language course for non-heritage learners (Ex. Spanish II) or an intermediate/ advanced language course designed for heritage learners
 - b) any second or third year foreign language course.....or:

The CAS foreign language requirement may also be met by acceptable scores in

- a) the AP exam (minimum score of 4)
- b) the CLEP exam (minimum score of 63 for Spanish, 59 for French) – **University Testing Centers at MMC (GL 120) or BBC (ACI 160)**
- c) the SAT II exam (minimum score of 699)
- d) any other approved tests

↗ Minor in Marine Biology

BSC 1010 and BSC 1011 with labs, OCB 3043 plus lab, and at least two Upper Division Marine Elective courses. Total upper division credits for OCB 3043 plus lab and Upper Division Marine Electives must number 10 or more. Grades of “C” or better are required for all courses and the labs.