

Marine Biology Program

The Marine Biology BS at FIU is administered through the Department of Biological Sciences within the College of Arts and Sciences. The program emphasizes basic sciences for all students in order to provide a thorough introduction to the physical and biological basis for aquatic life. The curriculum emphasizes the physical and chemical characteristics of the oceans and the adaptive nature of life against this backdrop. Progressing from a standardized core of basic sciences to a series of options among the upper division electives, the students will have the ability to tailor the program to their particular interests.

Students trained by this program will have specific learning outcomes that include technical competence in and familiarity with biotic and abiotic factors in the marine environment, opportunities for individualized research experience, ability in scientific and technical writing, and a scientific perspective based on a sound knowledge of fundamental principles. Our students will have training and exposure in currently accelerated areas of technical development, such as DNA technology, which are vital to their academic competitiveness, without sacrificing the development of familiarity with more traditional scientific subdisciplines.

Admission to the Program

Students wishing to pursue the BS in Marine Biology must meet the same entry requirements as identified for admission to the BS in Biological Sciences.

Marine Biology Program activities and upper-division coursework will be concentrated at the Biscayne Bay Campus, although course requirements may be met elsewhere at FIU.

Bachelor of Science in Marine Biology

Degree Program Hours: 120

Courses Required for the Degree

Lower Division Program

Common Prerequisites

A grade of "C" or better required.

BSC 1010	General Biology I
BSC 1010L	General Biology I Lab
BSC 1011	General Biology II
BSC 1011L	General Biology II Lab
CHM 1045	General Chemistry I
CHM 1045L	General Chemistry I Lab
CHM 1046	General Chemistry II
CHM 1046L	General Chemistry II Lab
CHM 2210	Organic Chemistry I¹
CHM 2210L	Organic Chemistry I Lab¹
CHM 2211	Organic Chemistry II¹

CHM 2211L	Organic Chemistry II Lab¹
PHY 2048	Physics with Calculus I^{1,2}
PHY 2048L	General Physics Lab I^{1,2}
PHY 2049	Physics with Calculus II^{1,2}
PHY 2049L	General Physics Lab II^{1,2}
MAC 2311	Calculus I³

MAC 2312	Calculus II³
OR	
STA 2122	Intro to Statistics I³
STA 3123	Intro to Statistics II³

¹Organic chemistry sequence or physics sequence must be taken at the Lower Division.

²Physics without Calculus I and II and corresponding labs can be substituted (PHY 2053, and PHY 2054).

³Calculus I and Calculus II must be taken in the Lower Division. If Statistics I is taken, it must be taken in the Lower Division. Calculus I and Statistics I alone are not sufficient to meet the requirements for the degree. STA 3111 and STA 3112 may be substituted for STA 2122 and STA 3123.

To qualify for admission to the department, FIU undergraduates must have met all the lower division requirements including CLAST, completed 60 semester hours, and must be otherwise acceptable to the department.

Upper Division Program

The upper-division requirements for the BS in Marine Biology include a selection of five common requirements and a choice of four marine electives, including selections from among the physical sciences. The Biological Sciences Distribution Requirement does not apply to the BS in Marine Biology.

Common Requirements

PCB 3043	Ecology	3
PCB 3063	Genetics	3
PCB 4023	Cell Biology	3
OCB 3043	Marine Biology and Oceanography	3
BSC 4931	Senior Seminar	1

Upper Division Electives 12

Students are required to choose four lecture courses from the following upper division Marine Biology electives:

PCB 4674	Evolution
BCH 3033	General Biochemistry I
BOT 5647	Ecology of Marine Plants
PCB 4805	Endocrinology
ZOO 5456	Ichthyology
OCB 4303	Biology of Marine Mammals
OCB 3264	Biology of Coral Reefs
PCB 4724	Comparative Physiology
OCB 4632	Marine Microbial Ecology
BOT 4404	Phycology

OCE 3014	Oceanography
GLY 4730	Marine Geology
ZOO 3203C	Invertebrate Biology
Not assigned	Coastal Marine Ecology
Not assigned	Marine Community Ecology

Laboratory Requirement (labs) 4

The student is required to take a minimum of four laboratories of Upper Division Required or Elective courses.

Electives Outside Major 9

Nine credit hours of Upper Division courses must be taken in the last 60 semester hours at FIU. These credits are required to be taken outside of the Biological Sciences Department and Marine Biology Program curriculum

Upper Division Credit Hour Requirement 48

A minimum of 48 credit hours of Upper Division courses must be earned in order to obtain a Bachelor of Science degree.

Minor in Marine Biology

Students must complete with a grade of C or better, General Biology I (BSC 1010), General Biology II (BSC 1011) with labs (BSC 1010L and BSC 1011L), Marine Biology and Oceanography (OCB 3043) and OCB 3043L, and at least three courses (lecture along with the accompanying labs when available) from among the selection of Upper Division Electives listed as meeting the BS in Marine Biology requirement.