

# MARINE SCIENCE/BIOLOGY MAJOR, BS

Students pursuing a marine science degree typically demonstrate a strong interest in some aspect of the marine environment and in the sciences in general. High school preparation should include a solid background in mathematics and introductory biology and/or chemistry.

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## Admission into the Major

Students are expected to formally declare both majors no later than the fourth semester of full-time enrollment (or at 61 semester hours for transfer students). Students can declare a major by completing the Change of Major/Minor Application online under the Student tab of myBama.

## Special Opportunities

During the summer semester, a large suite of marine science courses is offered at the Dauphin Island campus of the Alabama Marine Environmental Sciences Consortium.

Students earning the bachelor of science (BS) degree in marine science/biology must complete all University, College and departmental degree requirements. These include the general education requirements, the following double major requirements and other sufficient credits to total a minimum of 120 applicable semester hours.

Code and Title	Hours
<b>Major Courses</b>	
Select one of the following:	4
BSC 114 Principles Of Biology I & BSC 115 and Laboratory Biology I	
BSC 118 Honors General Biology I	
Select one of the following:	4
BSC 116 Principles Biology II & BSC 117 and Biology II Laboratory	
BSC 120 Honors Gen Biology II	
BSC 300 Cell Biology	3
BSC 315 Genetics	3
BSC 385 Ecology and Evolution	3
BSC electives above 250	15
CH 101 or General Chemistry	4
CH 117 Honors General Chemistry	
CH 102 or General Chemistry	4
CH 118 Honors General Chemistry	
GEO 101 The Dynamic Earth	4
GEO 102 or The Earth Through Time	4
GEO 105 Sustainable Earth	
MS 304 Marine Geology	4
MS 306 Marine Biology	4
MS 448 Intro Oceanography	4
MS elective 300 or 400 level (Consult the marine science coordinator for appropriate MS electives)	4
Select one of the following:	4
PH 101 General Physics I	

PH 105 General Physics W/Calc I	
PH 125 Honors Gen Ph W/Calculus	
Select one of the following:	4
PH 102 General Physics II	
PH 106 General Physics W/Calc II	
PH 126 Honors Gen Ph W/Calculus II	
Credit Hours Subtotal:	72
<b>Ancillary Courses</b>	
Grades in ancillary courses are not computed in the major GPA. The major in marine science/biology requires the successful completion of the following courses outside the major:	
CH 231 Elem Organic Chemistry I	3
CH 232 Elem Organic Chem II & CH 237 and Elem Organic Chem Lab	5
MATH 125 or Calculus I	4
MATH 145 Honors Calculus I	
ST 260 or Statistical Data Analysis	3
BSC 380 Intro Stats Biology	
<b>Total Hours</b>	<b>87</b>

## Laboratory Courses

Other BSC courses numbered 250 and above including two laboratory courses from the following list of laboratory courses (also see "Additional Major Requirements"):

Code and Title	Hours
BSC 310 Microbiology	3
BSC 313 Gen Bacteriology Lab	3
BSC 320 Freshwater Studies	4
BSC 360 Plant Biology	4
BSC 373 Vertebrate Zoology	4
BSC 390 Honors Thesis Research	1-8
BSC 396 Resident Study	1-6
BSC 398 Undergraduate Research	1-4
BSC 400 Vertebrate Funct Morphol	4
BSC 425 Human Physiology Lab	2
BSC 428 Biology Of Fishes	4
BSC 432 Pathogenic Mibrobiol Lab	3
BSC 434 Plant Systematics	4
BSC 439 Bch/Molecular Biology Lab	3
BSC 442 Integrated Genomics	4
BSC 460 Human Developmental Biology	4
BSC 464 Biology Of Algae	4
BSC 469 Histology Of Vertebrates	4
BSC 472 Mycology	4
BSC 475 General Entomology	4
BSC 476 Aquatic Insects	4
BSC 490 Stream Ecology	4
MS 306 Marine Biology	4
MS 408 Marine Invertebrate Zoology	4
MS 419 Marine Ecology	4

MS 452	Marine Vertebrate Zoology	4
MS 453	Marine Botany	4

Learn more about opportunities in this field at the Career Center

## Grade Point Average

A 2.0 grade point average in each major is required for completion of the degree. Please see the Grades and Grade Points section of this catalog for an explanation on grade point average calculations.

## Upper-level Residency

A minimum of 12 hours of 300- and 400-level courses in each major must be earned on this campus.

## Required Minor

Marine science/biology does not require a minor.

## Additional Major Requirements

Students are not permitted to count the same required major courses toward completion of a second major or minor. Students may count required ancillary courses for one major toward the requirements of another major. The biology department offers a number of courses designed to enrich the learning experience of students beyond the traditional classroom setting. These courses include:

Code and Title	Hours
BSC 391 Tutorial In Biol Science	1-2
BSC 396 Resident Study	1-6
BSC 398 Undergraduate Research	1-4
BSC 403 Intro To Bsc Instruction	2
BSC 404 Honors Bsc Instruction	2
BSC 407 Honors Seminar In Bsc	1

Beyond specific restrictions listed for each course, a total of four hours from the group above, may be applied to the requirements of the biology major or minor. An additional four hours may be applied as electives to the requirement for 120 hours for the degree.

Students are responsible for ensuring that they have met all University, College, major and minor requirements. However, each student must meet with an adviser in the major department for academic planning and to be approved for registration each semester. College advisers are also available for additional assistance with minor, College and University requirements.

A dual major in marine science and biology/chemistry/geology prepares students for a wide variety of employment opportunities in environmentally related fields, industries concerning utilization of marine resources, biotechnology, policy, and education.

## Types of Jobs Accepted

Recent graduates have worked in entry-level positions in government agencies, ecotourism (e.g., SCUBA divemasters, whale or dolphin watching boats), and K-12 education. A large number of graduates enter professional school (e.g., medicine, dentistry, veterinary medicine, pharmacy) or graduate school (master's degree, Doctor of Philosophy [Ph.D.]).

## Jobs of Experienced Alumni

Marine biologist, marine geologist, conservation specialist, laboratory technician, teacher, professor, aquaculture industry specialist, oceanographer, environmental consultant, marine animal veterinarian.