BIOLOGY, B.S. - MARINE BIOLOGY OPTION

The Marine Biology option prepares students for careers in marine biology and graduate study. Our affiliation with the Marine Science Consortium and its field station at Wallops Island, Virginia gives students hands-on experience and training with marine organisms and environments. Students in this program take several three-week long intensive courses during the summer at the field station.

Major in Biology, BS

Code	Title	Hours
CORE COURSES (C- or higher required)		24
Foundations of Biology - See Appendix 1		
BIOL 211	Concepts of Zoology	
BIOL 221	Concepts of Botany	
BIOL 343	Principles of Ecology & Evolution	
BIOL 362	Cell and Developmental Biology	
BIOL 364	Foundations of Genetics & Molecular Biology	
Option in Marine Biology - See separate block		
Total Hours		**24**

Appendix 1. Foundations of Biology

Code	Title	Hours
Foundations of Biology C- or Higher		4
BIOL 101	Foundations of Biology	

Concentration in Marine Biology

Code	Title	Hours

Students majoring in Marine Biology are encouraged to consider completing a minor in Oceanography and, in consultation with their advisor, to take further courses in mathematics.

REQUIRED MARINE BIOLOGY COURSES		
Required Marine Biology (4 credits) - Choose 1 of the following options 1-2:		4
Option 1. Marine Biology		
BIOL 291	Marine Biology	
Option 2. Coastal Marine Biology and Problem Solving Marine Biol		
BIOL 290	Coastal Marine Biology	
BIOL 292	Problem Solving in Marine Biol	
BIOL 295	Marine Invertebrates	3
BIOL 375	Biometry	3
BIOL 396	Ichthyology	3
Biological Oceanography - Choose 1 of the following:		3
BIOL 495	Biological Oceanography	
ESCI 465	Biological Oceanography	
Seminar in Marine Biology		2
BIOL 472	Seminar In Biology	
ELECTIVES		
undefined - Choose 5 hours from:		5
Any 3-level BIOL course(s)		
Any 4-level BIOL course(s)		

Note: This requirement may not be satisfied with BIOL 340 or BIOL 390.

In consultation with your advisor, choose additional courses at the 300-level or higher and approved for Biology majors to bring total credits in major to the minimum 47.

MARINE SCIENCE FIELD COURSES		
undefined - Choose 2 classes totaling at least 6 hours from:		6
BIOL 293	Coastal Ornithology	
BIOL 294	Coral Reef Ecology	
BIOL 295	Marine Invertebrates	
BIOL 296	Marine Ecology	
BIOL 392	Marine Mammals	
BIOL 397	Marine Botany	
Any course(s) with DWLOCATION = W		
At least 2 courses (6 credits) of a student's biology courses (required marine biology or biology electives) must be taken at a marine field site.		
Total Hours		**29**

Req Related for Biology, BS

Code	Title	Hours

For Biology Majors the G2 block of the Liberal Arts Core will be fulfilled by your required related coursework.

CHEMISTRY AND EARTH SCIENCES		

A C- or higher in CHEM 111 and 112 is a pre-requisite for CHEM 235. A C- or higher in CHEM 231 is a pre-requisite for CHEM 232. Students interested in graduate or professional school should take CHEM 231 and 232.

ESCI 261	Introduction to Oceanography	4
CHEM 111	Introductory Chemistry 1	4
CHEM 112	Introductory Chemistry 2	4
Organic Chemistry - Choose 1 of the following options 1-2:		4-8
Option 1. Organic Chemistry I and II		
CHEM 231	Organic Chemistry 1	
CHEM 232	Organic Chemistry 2	
Option 2. Short Course in Organic Chemistry		
CHEM 235	Organic Chemistry	
Environmental Chem or Chem Oceanography - Choose 1 of the following:		3-4
CHEM 375	Environmental Chemistry	
ESCI 363	Chemical Oceanography	
MATHEMATICS FOR MARINE BIOLOGY		
Calculus for Mgt, Calculus I or Honors Calculus - Choose 1 of the following:		4-5
MATH 151	Calculus for Management	
MATH 161	Calculus 1	
MATH 163H	Honors Calculus 1	
PHYSICS		
undefined - Choose 1 of the following options 1-2:		8-10
Option 1. Physics with Algebra		
PHYS 131	Physics 1 with Algebra	
PHYS 132	Physics 2 with Algebra	
Option 2. Physics with Calculus		
PHYS 231	Physics 1 with Calculus	

PHYS 232	Physics 2 with Calculus	
Total Hours		**31-39**