Biology, Marine Science (BSBio)

Total Hours Required: 120

Plan of Study

The Plan of Study is a suggested four-year course sequence to support academic planning and serves as a helpful guide. Currently enrolled students should meet with their academic advisor to tailor their course selections and timelines to their individual goals and circumstances.

Course	Title	Hours
Year 1		
Semester 1		
M 408C	Differential and Integral Calculus	4
CH 301	Principles of Chemistry I	3
BIO 311C	Introductory Biology I	3
RHE 306	Rhetoric and Writing	3
First-Year Signature Course (090)		3
	Hours	**16**
Semester 2		
M 408S	Integral Calculus for Science	4
CH 302	Principles of Chemistry II	3
BIO 311D	Introductory Biology II	3
CH 204	Introduction to Chemical Practice	2
Humanities (040)		3
	Hours	**15**
Year 2		
Semester 1		
CH 320M	Organic Chemistry I	3
BIO 325	Genetics	3
MNS 310	Fundamentals of Marine Science	3
SDS 320E	Elements of Statistics	3
American and Texas Government (070)		3
	Hours	**15**
Semester 2		
MNS 320	Marine Ecology	3
MNS 120L	Laboratory Studies in Marine Ecology	1
INB 370	Evolution	3
Visual and Performing Arts (050)		3
American and Texas Government (070)		3
Free Elective		3
	Hours	**16**
Year 3		
Semester 1		
MBS 326R	General Microbiology	3
MBS 226L	General Microbiology Laboratory	2
INB 373	Ecology	3
Hours chosen from: Upper-division MNS		3
Hours chosen from: Upper-division MNS		3
	Hours	**14**
Semester 2		
MNS 101	Seminar in Marine Science	1
Hours chosen from: Upper-division MNS		3
Hours chosen from: Upper-division MNS		3
Hours chosen from: Upper-division MNS		3
Hours chosen from: Upper-division MNS		3
	Hours	**13**
Year 4		
Semester 1		
PHY 302K	General Physics Technical Course: Mechanics, Heat, and Sound	3
PHY 105M	Laboratory For Physics 302K, 303K, and 317K	1
U.S. History (060)		3
Social and Behavioral Sciences (080)		3
Free Elective		3
Hours chosen from: Upper-division MNS		3
	Hours	**16**
Semester 2		
PHY 302L	General Physics Technical Course: Electricity and Magnetism, Light, Atomic and Nuclear Physics	3
PHY 105N	Laboratory For Physics 302L, 303L, and 317L	1
Hours chosen from: Upper-division MNS		3
U.S. History (060)		3
Free Elective		3
Free Elective		2
	Hours	**15**
	Total Hours	**120**

Requirements

All requirements are listed below, starting with the most specialized moving to the most general. Additional requirements may follow the table, so be sure to read the entire page. Some required courses listed below may also satisfy General Education requirements, including Core Curriculum.

Code	Title	Hours
Concentration		
CH 320M	Organic Chemistry I	3
MBS 326R	General Microbiology	3
INB 373	Ecology	3
MNS 101	Seminar in Marine Science	1
MNS 310	Fundamentals of Marine Science	3
MNS 320	Marine Ecology	3
MNS 120L	Laboratory Studies in Marine Ecology	1
Hours chosen from: Upper-division MNS (at least six hours of which must be completed at the Marine Science Institute in Port Aransas, Texas)		12
Hours chosen from:		6
MBS 320	Cell Biology	
INB 321L	Aquatic Entomology	
MBS 328	Introductory Plant Physiology	
MBS 344	Molecular Biology	
INB 354L	Ichthyology	
INB 361T	Comparative Animal Physiology	
INB 364	Microbial Ecology	
MBS 366	Microbial Genetics	
INB 375	Conservation Biology	
GEO 341G	Geomicrobiology	
Upper-division Marine Sciences coursework		
Subtotal		*35*
Degree (see details below)		**34**
Free electives: Additional coursework to reach total hours required.		9
Subtotal		*43*
General Education		
Core Curriculum		42
Foreign Language other than English, Beginning Proficiency		
Subtotal		*42*
College Requirements - Natural Sciences		

General University Requirements	
Total Hours	**120**

Degree-Bachelor of Science Biology (BSBio)

Code	Title	Hours
Hours chosen from:		4
M 408C	Differential and Integral Calculus	
M 408R	Differential and Integral Calculus for the Sciences	
M X08S & M X08N	Integral Calculus for Science and Differential Calculus for Science	
SDS 320E	Elements of Statistics	3
Hours chosen from:		3
CH 301	Principles of Chemistry I	
CH 301C	Foundations of Chemistry I	
CH 401	Principles of Chemistry I	
Hours chosen from:		3
CH 302	Principles of Chemistry II	
CH 302C	Foundations of Chemistry II	
CH 402	Principles of Chemistry II	
CH 204	Introduction to Chemical Practice	2
Hours chosen from a single sequence below:		8
Sequence 1		
PHY 317K	General Physics I	
PHY 117M	Laboratory for Physics 317K	
PHY 317L	General Physics II	
PHY 117N	Laboratory for Physics 317L	
Sequence 2		
PHY 301	Mechanics	
PHY 101L	Laboratory for Physics 301	
PHY 316	Electricity and Magnetism	
PHY 116L	Laboratory for Physics 316	
Sequence 3		
PHY 303K	Engineering Physics I	
PHY 103M	Laboratory for Physics 303K	
PHY 303L	Engineering Physics II	
PHY 103N	Laboratory for Physics 303L	
Sequence 4		
PHY 302K	General Physics Technical Course: Mechanics, Heat, and Sound	
PHY 102M	Laboratory for Physics 302K	
PHY 302L	General Physics Technical Course: Electricity and Magnetism, Light, Atomic and Nuclear Physics	
PHY 102N	Laboratory for Physics 302L	
Hours chosen from a single sequence below:		6
Sequence 1		
BIO 311C	Introductory Biology I	
BIO 311D	Introductory Biology II	
BIO 325	Genetics	
Sequence 2		
BIO 315H	Advanced Introduction to Genetics: Honors	
BIO 325H	Genetics: Honors	
BIO 206L	Introductory Laboratory Experiments in Biology	2
or INB 208L	Field Biology	
or MBS 226L	General Microbiology Laboratory	
INB 370	Evolution	3
All students must complete at least 36 semester hours of upper-division coursework; at least 21 semester hours of upper-division coursework in biology must be completed in residence at the University.		
Total Hours		**34**

Additional Requirements and Policy

Students in all Options must fulfill both the University's General Requirements for graduation and the college requirements. They must also earn a grade of at least *C-* in each mathematics and science course required for the degree, and a grade point average in these courses of at least 2.00. More information about grades and the grade point average is given in the *General Information Catalog*.

To graduate under Biology Honors, students must remain in good standing in the Dean's Scholars, Health Science Scholars, or Polymathic Scholars Honors Program, must submit an honors thesis, and present their research in an approved public forum, such as the college's annual Undergraduate Research Forum. More information about the Undergraduate Research Forum is available at https://cns.utexas.edu/.

Order and Choice of Work

Students begin the Bachelor of Science in Biology degree program with six hours of introductory biology for science majors (BIO 311C and BIO 311D), as well as CH 301 or CH 301C and CH 302 or CH 302C and M 408C, M 408N, or M 408R. Students should consult with academic advisors about specific concentrations within biology, about appropriate courses in mathematics and physical sciences, and about course load and the balance between laboratory and nonlaboratory work. Most students select a concentration by the end of the second year and take at least 21 hours of upper-division coursework in the major in the third and fourth years.

Additional Requirements and Policies

Students must take MBS 226L instead of either BIO 206L or INB 208L.