

Biology, Ecology, Evolution, and Behavior (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 or M 408N or M 408R	Differential and Integral Calculus or Differential Calculus for Science or Differential and Integral Calculus for the Sciences	4
CH 301	Principles of Chemistry I	3
BIO 311C	Introductory Biology I	3
First-Year Signature Course (090)		3
Hours		13
Semester 2		
M 408S	Integral Calculus for Science	4
CH 302	Principles of Chemistry II	3
BIO 311D	Introductory Biology II	3
BIO 206L	Introductory Laboratory Experiments in Biology	2
RHE 306	Rhetoric and Writing	3
Hours		15
Semester 3		
American and Texas Government (070)		3
Hours		3
Year 2		
Semester 1		
CH 320M	Organic Chemistry I	3
BIO 325	Genetics	3
CH 204	Introduction to Chemical Practice	2
SDS 320E	Elements of Statistics	3
Free Elective		3
Hours		14
Semester 2		
CH 320N	Organic Chemistry II	3
CH 220C	Organic Chemistry Laboratory	2
INB 370	Evolution	3
Humanities (040)		3
Visual and Performing Arts (050)		3
Hours		14
Semester 3		
American and Texas Government (070)		3
Hours		3
Year 3		
Semester 1		
PHY 302K	General Physics Technical Course: Mechanics, Heat, and Sound	3
PHY 105M	Laboratory For Physics 302K, 303K, and 317K	1
INB 373	Ecology	3
BCH 369	Fundamentals of Biochemistry	3
Hours chosen from: upper-division BIO/INB		3
Free Elective		2
Hours		15

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
Social and Behavioral Sciences (080)		3
Hours chosen from: Taxon-Based BIO/INB		3
Free Elective		3
Hours		13
Year 4		
Semester 1		
Hours chosen from: upper-division BIO/INB		3
Hours chosen from: upper-division BIO/INB		3
Hours chosen from: upper-division BIO/INB Lab		3
U.S. History (060)		3
Free Elective		3
Hours		15
Semester 2		
Hours chosen from: upper-division BIO/INB		3
Hours chosen from: upper-division BIO/INB		3
Hours chosen from: upper-division BIO/INB		3
U.S. History (060)		3
Free Elective		3
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		
Area Course/Pairs		
Hours chosen from: (one course or pair of courses in each of the following areas)		9
Ecology:		
INB 373	Ecology	
MNS X20 & MNS X20L	Marine Ecology and Laboratory Studies in Marine Ecology	
Behavior and Comparative Physiology:		
INB X22 & INB X22L	Structure, Physiology, and Reproduction of Seed Plants and Structure, Physiology, and Reproduction of Seed Plants Laboratory	
INB 359K	Principles of Animal Behavior	
INB 361T	Comparative Animal Physiology	
Taxon-based Course:		
INB 321L	Aquatic Entomology	
INB X24 & INB X24L	Survey of the Plant Kingdom and Survey of the Plant Kingdom Laboratory	
INB 440L	Biology of Birds	
INB 448L	Invertebrate Biology	
INB 351	Economic Botany	
INB 352	Reproductive Biology of Flowering Plants	
INB 353F	Field Entomology	
INB 453L	Entomology	
INB 354L	Ichthyology	
INB 455L	Vertebrate Natural History	

INB 463L	Plant Systematics
INB 369F	Field Herpetology
INB 369L	Herpetology
MNS 352D	Marine Botany
MNS 354	Marine Invertebrates
MNS 354C	Biology of Fishes
MNS 354E	Aquatic Microbiology

Additional Courses/Pairs

Hours chosen from: chosen from the Area Course/Pairs section and from the following: 9

INB 438L	Animal Communication
INB 471G	Natural History Museum Science
BIO 456L	Limnology and Oceanography
INB 364	Microbial Ecology
INB 373L	Ecology Laboratory
INB X74 & INB X74L	Plant Anatomy with Histological Techniques and Laboratory in Plant Anatomy and Histological Techniques
INB 375	Conservation Biology
INB 478L	Comparative Vertebrate Anatomy
MNS 352C	Estuarine Ecology
MNS 354Q	Marine Environmental Science

Cellular, Developmental, Genetics, Microbiology, or Molecular Biology Course

Hours chosen from: 3

MBS 320	Cell Biology
MBS 320L	Cell Biology Laboratory
BIO 325L	Laboratory Experience in Genetics
MBS 325T	Human Genetics
MBS 326R	General Microbiology
MBS 328	Introductory Plant Physiology
MBS 331L	Laboratory Studies in Molecular Biology
MBS 344	Molecular Biology
MBS 350	Developmental, Stem Cell, and Regenerative Biology
MBS 349L	Experiments in Developmental Biology
MBS 350M	Plant Molecular Biology
MBS 366R	Molecular Genetics and Medicine

Laboratory Course/Pair

Laboratory course or pair of courses containing a substantial field component from the following: (A laboratory course or pair of courses may also count toward Area Course/Pairs, Additional Courses/Pairs, and Cellular, Developmental, Genetics, Microbiology, or Molecular Biology Course requirements) 3

INB 321L	Aquatic Entomology
INB 440L	Biology of Birds
INB 353F	Field Entomology
INB 453L	Entomology
INB 354L	Ichthyology
INB 455L	Vertebrate Natural History
BIO 456L	Limnology and Oceanography
INB 369L	Herpetology
INB 373L	Ecology Laboratory
MNS X20 & MNS X20L	Marine Ecology and Laboratory Studies in Marine Ecology
MNS 352C	Estuarine Ecology

MNS 352D	Marine Botany
MNS 354	Marine Invertebrates
MNS 354C	Biology of Fishes
MNS 354E	Aquatic Microbiology

Additional Laboratory Course

Hours chosen from: (One-hour laboratory courses may require credit for or registration in a complementary lecture course. A laboratory course may also count toward Area Course/Pairs, Additional Courses/Pairs, and Cellular, Developmental, Genetics, Microbiology, or Molecular Biology Course requirements. A course counted toward Laboratory Course/Pair requirement may not also count toward Additional Laboratory Course requirement) 1

MBS 320L	Cell Biology Laboratory
INB 321L	Aquatic Entomology
INB 124L	Survey of the Plant Kingdom Laboratory
BIO 325L	Laboratory Experience in Genetics
MBS 331L	Laboratory Studies in Molecular Biology
INB 438L	Animal Communication
INB 440L	Biology of Birds
INB 448L	Invertebrate Biology
MBS 349L	Experiments in Developmental Biology
INB 353F	Field Entomology
INB 453L	Entomology
INB 354L	Ichthyology
INB 455L	Vertebrate Natural History
BIO 456L	Limnology and Oceanography
INB 369L	Herpetology
INB 373L	Ecology Laboratory
INB 174L	Laboratory in Plant Anatomy and Histological Techniques
INB 478L	Comparative Vertebrate Anatomy
INB 359L	Animal Behavior Laboratory
INB 470L	Evolution Laboratory
MNS 120L	Laboratory Studies in Marine Ecology
MNS 352C	Estuarine Ecology
MNS 352D	Marine Botany
MNS 354	Marine Invertebrates
MNS 354C	Biology of Fishes
MNS 354E	Aquatic Microbiology
MNS 354Q	Marine Environmental Science

Additional Course

Hours chosen from: 3

INB 323	Mathematical Modeling for Biology
CH 320M	Organic Chemistry I
C S 303E	Elements of Computers and Programming
or C S 313E	Elements of Software Design
GEO 401	Physical Geology
or GEO 403	Introduction to Geology
SDS 324E	Elements of Regression Analysis
or SDS 322E	Elements of Data Science

Subtotal 28

Degree (see details below) 34

Free electives: Additional coursework to reach total hours required. 16

Subtotal 50

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.