

BIOLOGY UNDERGRADUATE MAJOR (BS, HBS)

This major offers the following option(s):

- Ecology (<http://catalog.oregonstate.edu/college-departments/science/school-life-sciences/integrative-biology/biology-bs-hbs/ecology-option/>)
- Genetics (<http://catalog.oregonstate.edu/college-departments/science/school-life-sciences/integrative-biology/biology-bs-hbs/genetics-option/>)
- Marine Biology (<http://catalog.oregonstate.edu/college-departments/science/school-life-sciences/integrative-biology/biology-bs-hbs/marine-biology-option/>)
- Physiology and Behavior (<http://catalog.oregonstate.edu/college-departments/science/school-life-sciences/integrative-biology/biology-bs-hbs/physiology-behavior-option/>)
- Pre-Dentistry/Biology (<http://catalog.oregonstate.edu/college-departments/science/school-life-sciences/integrative-biology/biology-bs-hbs/pre-dentistrybiology-option/>)
- Pre-Education Biology (<http://catalog.oregonstate.edu/college-departments/science/school-life-sciences/integrative-biology/biology-bs-hbs/pre-education-biology-option/>)
- Pre-Medicine/Biology (<http://catalog.oregonstate.edu/college-departments/science/school-life-sciences/integrative-biology/biology-bs-hbs/pre-medicinebiology-option/>)
- Pre-Veterinary Medicine (<http://catalog.oregonstate.edu/college-departments/science/school-life-sciences/integrative-biology/biology-bs-hbs/pre-veterinary-medicine-option/>)

Also available at OSU-Cascades.

Administered by the Department of Integrative Biology under the School of Life Sciences.

The undergraduate BS degree in Biology is designed for students seeking an interdisciplinary background in the life sciences. The major couples a comprehensive biological, physical and quantitative sciences core with a variety of electives that can be catered to meet diverse professional goals. Undergraduate research, internship, teaching and study abroad experience are strongly recommended, and credits can be integrated with major requirements. Biology majors receive excellent training for graduate and professional programs.

Corvallis Campus students may choose to complete one transcript-visible option in Ecology (<http://catalog.oregonstate.edu/college-departments/science/school-life-sciences/integrative-biology/biology-bs-hbs/ecology-option/>), Genetics (<http://catalog.oregonstate.edu/college-departments/science/school-life-sciences/integrative-biology/biology-bs-hbs/genetics-option/>), Marine Biology (<http://catalog.oregonstate.edu/college-departments/science/school-life-sciences/integrative-biology/biology-bs-hbs/marine-biology-option/>), Physiology and Behavior (<http://catalog.oregonstate.edu/college-departments/science/school-life-sciences/integrative-biology/biology-bs-hbs/physiology-behavior-option/>), Pre-Dentistry/Biology (<http://catalog.oregonstate.edu/college-departments/science/school-life-sciences/integrative-biology/biology-bs-hbs/pre-dentistrybiology-option/>), Pre-Education Biology (<http://catalog.oregonstate.edu/college-departments/science/school-life-sciences/integrative-biology/biology-bs-hbs/pre-education-biology-option/>), Pre-Medicine/Biology (<http://catalog.oregonstate.edu/college-departments/science/school-life-sciences/integrative-biology/biology-bs-hbs/pre-medicinebiology-option/>), or Pre-Veterinary Medicine (<http://catalog.oregonstate.edu/college-departments/science/school-life-sciences/integrative-biology/biology-bs-hbs/pre-veterinary-medicine-option/>).

departments/science/school-life-sciences/integrative-biology/biology-bs-hbs/pre-medicinebiology-option/), or Pre-Veterinary Medicine (<http://catalog.oregonstate.edu/college-departments/science/school-life-sciences/integrative-biology/biology-bs-hbs/pre-veterinary-medicine-option/>). Options in the Biology major require fifteen or fewer additional credits (one term) beyond the basic Biology major, and most students can complete the additional option course work in four years.

Major Code: 509

- Explain and apply the fundamental concepts of the biological sciences, including inquiry in these four areas: PO1-A Cell Biology and Biochemistry; PO1-B Molecular Biology and Genetics; PO1-C Organismal Biology; and PO1-D Ecology and Evolution.
- Explain and apply the fundamental concepts in cell biology and biochemistry.
- Explain and apply the fundamental concepts in molecular biology and genetics.
- Explain and apply fundamental concepts in organismal biology.
- explain and apply fundamental concepts in population genetics, evolution and ecology.
- Apply the process of science through three different aspects.
- Access primary literature, identify relevant works for a particular topic, and evaluate the scientific content of these works.
- Formulate testable hypotheses based on observation, gather data to address these hypotheses and analyze those data to assess the degree to which their hypothesis is supported.
- Employ fundamental quantitative and statistical principles to present and critique scientific findings.
- Communicate scientific information through effective formal and informal writing and speaking in a format used by practicing scientists.
- Integrate and analyze information across levels of organization ranging from biochemistry and molecular biology to ecosystems within the biological sciences to formulate arguments and critically evaluate scientific claims.
- Conduct background research and apply fundamental biological science principles to make informed decisions on socio-scientific issues.

Students in the Biology major must complete BI 221, BI 222 and BI 223 (or the honors version of this series) with a C– or better to continue on to upper-division Biology (BI) and Zoology (Z) coursework. Students must also complete CH 231/CH 261, CH 232/CH 262 or CH 233/CH 263 and CH 331 and CH 332 with a C– or better to continue on to upper-division Chemistry (CH) coursework.

Students majoring in Biology cannot seek a dual or double major in Biochemistry and Biophysics, Biochemistry and Molecular Biology, Biohealth Sciences, Microbiology or Zoology.

Declaring an option can modify the statistics and elective areas of the major. For further information, see MyDegrees or the Integrative Biology (<http://ib.oregonstate.edu>) website.

Code	Title	Credits
Biology Core Courses		
<i>Biology Seminars</i>		
BI 197	PROFESSIONAL DEVELOPMENT I: HEALTH PROFESSIONS	1
or BI 198	PROFESSIONAL DEVELOPMENT I: BIOLOGY AND ZOOLOGY	
BI 298	PROFESSIONAL DEVELOPMENT FOR BIOLOGISTS II	1

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Baccalaureate Core Communications

COMM 111	*PUBLIC SPEAKING	3
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Baccalaureate Core Writing II

WR 327	*TECHNICAL WRITING	3
or WR 362	*SCIENCE WRITING	

Mathematics and Statistics Core

MTH 251 & MTH 252	*DIFFERENTIAL CALCULUS and INTEGRAL CALCULUS	8
or MTH 227 & MTH 228	*CALCULUS AND PROBABILITY FOR THE LIFE SCIENCES I and CALCULUS AND PROBABILITY FOR THE LIFE SCIENCES II	
ST 351	INTRODUCTION TO STATISTICAL METHODS	4
ST 352	INTRODUCTION TO STATISTICAL METHODS ¹	4-8
or ST 411 & ST 412	METHODS OF DATA ANALYSIS and METHODS OF DATA ANALYSIS	

Chemistry Core

CH 231 & CH 261	GENERAL CHEMISTRY and *LABORATORY FOR CHEMISTRY 231	5
CH 232 & CH 262	GENERAL CHEMISTRY and *LABORATORY FOR CHEMISTRY 232	5
CH 233 & CH 263	GENERAL CHEMISTRY and *LABORATORY FOR CHEMISTRY 233	5
CH 331 & CH 332 & CH 337	ORGANIC CHEMISTRY and ORGANIC CHEMISTRY and ORGANIC CHEMISTRY LABORATORY	12
BB 450 & BB 451	GENERAL BIOCHEMISTRY and GENERAL BIOCHEMISTRY	7

Biological Sciences Core

These courses are arranged in the order they are generally taken:

BI 221 & BI 222 & BI 223	*PRINCIPLES OF BIOLOGY: CELLS and *PRINCIPLES OF BIOLOGY: ORGANISMS and *PRINCIPLES OF BIOLOGY: POPULATIONS (or the honors version of this series)	12
BI 370	ECOLOGY	3
BI 311	GENETICS	4
BB 314	CELL AND MOLECULAR BIOLOGY	4
BI 445	EVOLUTION	3
MB 302	GENERAL MICROBIOLOGY	3
MB 303	GENERAL MICROBIOLOGY LABORATORY	2

Senior Biology Major Field Test

BI 498	SENIOR BIOLOGY FIELD TEST ²	0
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Electives ³

Biology and Society

Select one BCC course from the following or see option: 3-4

AEC 351	*NATURAL RESOURCE ECONOMICS AND POLICY	
AEC 352/ECON 352	*ENVIRONMENTAL ECONOMICS AND POLICY	
BB 331	*INTRODUCTION TO MOLECULAR BIOLOGY	
BB 332	*MOLECULAR MEDICINE	
BI 175	*GENOMES, IDENTITIES AND SOCIETIES	
BI 301	*HUMAN IMPACTS ON ECOSYSTEMS	
BI 306	*ENVIRONMENTAL ECOLOGY	
BI 345	*INTRODUCTION TO EVOLUTION	
BI 347	*OCEANS IN PERIL	
BI 348	*HUMAN ECOLOGY	
BI 420	*VIRUSES IN MODERN SOCIETY	
BOT 324	*FUNGI IN SOCIETY	
FES 435/TOX 435	*GENES AND CHEMICALS IN AGRICULTURE: VALUE AND RISK	
FW 350	*ENDANGERED SPECIES, SOCIETY AND SUSTAINABILITY	
H 312	*HIV/AIDS AND STIS IN MODERN SOCIETY	
HSTS 416	*HISTORY OF MEDICINE PRE-1800	
MB 330	*DISEASE AND SOCIETY	
PHL 443/REL 443	*WORLD VIEWS AND ENVIRONMENTAL VALUES	
Z 349	*BIODIVERSITY: CAUSES, CONSEQUENCES, AND CONSERVATION	

Physics or Computer Science and Quantitative Applications

Select one of the following tracks or see option: 14-16

Track I Physics

PH 201 & PH 202 & PH 203	*GENERAL PHYSICS and *GENERAL PHYSICS and *GENERAL PHYSICS (required for most human health professions)
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Track II Computer Science and Quantitative Applications

CS 201	COMPUTER PROGRAMMING FOR NON-CS MAJORS
or CS 161	INTRODUCTION TO COMPUTER SCIENCE I
BDS 211	USE AND ABUSE OF DATA: CRITICAL THINKING IN SCIENCE
or CS 162	INTRODUCTION TO COMPUTER SCIENCE II

Select two additional courses from the following:

BB 485	APPLIED BIOINFORMATICS
BDS 491	CAPSTONE PROJECTS IN BIOLOGICAL DATA SCIENCE I
BI 456	PHYLOGENETICS
BI 481	BIOGEOGRAPHY
BI 483	POPULATION BIOLOGY
BOT 458	ECOSYSTEMS GENOMICS
BOT 460	FUNCTIONAL GENOMICS
BOT 475	COMPARATIVE GENOMICS
BOT 476	INTRODUCTION TO COMPUTING IN THE LIFE SCIENCES
FW 433	POPULATION DYNAMICS FOR CONSERVATION
GEOG 360	GISCIENCE I: GEOGRAPHIC INFORMATION SYSTEMS AND THEORY
GEOG 361	GISCIENCE II: ANALYSIS AND APPLICATIONS
or GEOG 362	GIS AND SPATIAL DATA SCIENCE
OC 449	ECOLOGICAL THEORIES IN BIOLOGICAL AND FISHERIES OCEANOGRAPHY DATA
ST 431	SAMPLING METHODS
ST 435	QUANTITATIVE ECOLOGY

Other courses by approval

Organismal Biology

Select one course from the following or see option: 3-5

BI 427	PALEOBIOLOGY
BOT 321	PLANT SYSTEMATICS
BOT 416	AQUATIC BOTANY
BOT 461	MYCOLOGY
Z 361 & Z 362	INVERTEBRATE BIOLOGY and INVERTEBRATE BIOLOGY LABORATORY
Z 371 & Z 372	VERTEBRATE BIOLOGY and VERTEBRATE BIOLOGY LABORATORY
Z 422	COMPARATIVE/FUNCTIONAL VERTEBRATE ANATOMY
Z 461	MARINE AND ESTUARINE INVERTEBRATE ZOOLOGY (taught at Hatfield Marine Science Center)
Z 477	AQUATIC ENTOMOLOGY

Physiology

Select one course from the following or see option: 3-5

BI 331 & BI 341 & BI 332 & BI 342	ADVANCED HUMAN ANATOMY AND PHYSIOLOGY and ADVANCED HUMAN ANATOMY AND PHYSIOLOGY LABORATORY and ADVANCED HUMAN ANATOMY AND PHYSIOLOGY and ADVANCED HUMAN ANATOMY AND PHYSIOLOGY LABORATORY
BOT 331	PLANT PHYSIOLOGY
BOT 488	ENVIRONMENTAL PHYSIOLOGY OF PLANTS
Z 423	ENVIRONMENTAL PHYSIOLOGY
Z 425	EMBRYOLOGY AND DEVELOPMENT
Z 431	VERTEBRATE PHYSIOLOGY I

Writing Intensive Course (WIC)

Select one course from the following or see option: 3-4

BI 319	*THEORY, PRACTICE AND DISCOURSE IN THE LIFE SCIENCES
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BI 371	^ECOLOGICAL METHODS
BI 373	^FIELD METHODS IN MARINE ECOLOGY
BOT 323	^FLOWERING PLANTS OF THE WORLD
MB 385	^EMERGING INFECTIOUS DISEASES AND EPIDEMICS

Experiential Learning or Integrative Biology Elective

Select one of the following two tracks or an option: 3-4

Track I Experiential Learning Credits

Select any combination of three credits from the following:

BI 309	TEACHING PRACTICUM (by approval)
BI 401	RESEARCH AND SCHOLARSHIP (by approval)
BI 406	PROJECTS: CURATORIAL ASSISTANT (by approval)
BI 409	ADVANCED TEACHING PRACTICUM (by approval)
BI 410	INTERNSHIP (by approval)

OSU international internships (INTL credits) by approval

Track II Integrative Biology Course

Select one course from the following:

BI 333 & BI 343	ADVANCED HUMAN ANATOMY AND PHYSIOLOGY and ADVANCED HUMAN ANATOMY AND PHYSIOLOGY LABORATORY
BI 353	PACIFIC NORTHWEST COASTAL ECOSYSTEMS (taught at Hatfield Marine Science Center)
BI 358	SYMBIOSES AND THE ENVIRONMENT
BI 375	FIELD METHODS IN ECOLOGICAL RESTORATION (taught at OSU Cascades)
BI 427	PALEOBIOLOGY (if not used above)
BI 450	^MARINE BIOLOGY AND ECOLOGY (taught at Hatfield Marine Science Center) ⁴
BI 454	EVOLUTIONARY GENOMICS
BI 456	PHYLOGENETICS (if not used above)
BI 481	BIOGEOGRAPHY
BI 483	POPULATION BIOLOGY (if not used above)
BI 485	MONSTER BIOLOGY
BI 495	DISEASE ECOLOGY
Z 350	ANIMAL BEHAVIOR
Z 361 & Z 362	INVERTEBRATE BIOLOGY and INVERTEBRATE BIOLOGY LABORATORY (if not used above)
Z 365	BIOLOGY OF INSECTS
Z 371 & Z 372	VERTEBRATE BIOLOGY and VERTEBRATE BIOLOGY LABORATORY (if not used above)
Z 425	EMBRYOLOGY AND DEVELOPMENT (if not used above)
Z 432 & Z 442	VERTEBRATE PHYSIOLOGY II and VERTEBRATE PHYSIOLOGY LABORATORY
Z 438	BEHAVIORAL NEUROBIOLOGY
Z 473	HERPETOLOGY

Total credits required for graduation 180

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Baccalaureate Core Course (BCC)

^
Writing Intensive Course (WIC)

1
Alternative series is ST 351, ST 411 and ST 412

2
Biology majors are required to take BI 498, a comprehensive, two-hour Biology Major Field Test (<http://ib.oregonstate.edu/advising/MFT-info/>), in their final OSU term (or spring term if they will graduate in summer) in order to graduate

3

Declaring an option will alter the elective categories below, and all options automatically clear the upper-division science electives requirement. See the individual options or MyDegrees for details. Biology and Society electives also count as BCC

4

BI 450 (taught at Hatfield Marine Science Center) is by application only and may count for other major requirements

Major Code: 509

Biology - TRACK I

First Year

Fall		Credits
BI 197 or BI 198	PROFESSIONAL DEVELOPMENT I: HEALTH PROFESSIONS or PROFESSIONAL DEVELOPMENT I: BIOLOGY AND ZOOLOGY	1
CH 231 & CH 261	GENERAL CHEMISTRY and *LABORATORY FOR CHEMISTRY 231	5
MTH 111 or MTH 112	*COLLEGE ALGEBRA or *ELEMENTARY FUNCTIONS	4
Bacc Core		3
HHS 231	*LIFETIME FITNESS FOR HEALTH (or PAC Course)	2
Credits		15

Winter

CH 232 & CH 262	GENERAL CHEMISTRY and *LABORATORY FOR CHEMISTRY 232	5
MTH 112	*ELEMENTARY FUNCTIONS	4
Two Bacc Core courses		6
Credits		15

Spring

BI 298	PROFESSIONAL DEVELOPMENT FOR BIOLOGISTS II	1
CH 233 & CH 263	GENERAL CHEMISTRY and *LABORATORY FOR CHEMISTRY 233	5
MTH 251 or MTH 227	*DIFFERENTIAL CALCULUS or *CALCULUS AND PROBABILITY FOR THE LIFE SCIENCES I	4
Two Bacc Core courses		6
Credits		16

Second Year

Fall

BI 221	*PRINCIPLES OF BIOLOGY: CELLS	4
CH 331	ORGANIC CHEMISTRY	4
MTH 252 or MTH 228	INTEGRAL CALCULUS or CALCULUS AND PROBABILITY FOR THE LIFE SCIENCES II	4
Bacc Core		3
Credits		15

Winter

BI 222	*PRINCIPLES OF BIOLOGY: ORGANISMS	4
CH 332	ORGANIC CHEMISTRY	4
ST 351	INTRODUCTION TO STATISTICAL METHODS	4
Bacc Core		3
Credits		15

Spring

BI 223	*PRINCIPLES OF BIOLOGY: POPULATIONS	4
CH 337	ORGANIC CHEMISTRY LABORATORY	4
ST 352	INTRODUCTION TO STATISTICAL METHODS	4
Bacc Core		3
Credits		15

Third Year**Fall**

BB 450	GENERAL BIOCHEMISTRY	4
Select one of the following:		3-4
BI 311	GENETICS	
BB 314	CELL AND MOLECULAR BIOLOGY	
BI 370	ECOLOGY	
PH 201	*GENERAL PHYSICS	5
Bacc Core		3
Credits		16

Winter

BB 451	GENERAL BIOCHEMISTRY	3
Select one of the following:		3-4
BI 311	GENETICS	
BB 314	CELL AND MOLECULAR BIOLOGY	
BI 370	ECOLOGY	
PH 202	*GENERAL PHYSICS	5
Bacc Core		3
Credits		15

Spring

Select one of the following:		3-4
BI 311	GENETICS	
BB 314	CELL AND MOLECULAR BIOLOGY	
BI 370	ECOLOGY	
BI 445	EVOLUTION	
PH 203	*GENERAL PHYSICS	5
Select one of the following:		3
Biology and Society		
Organismal Biology		
Physiology		
Writing Intensive Course		
Bacc Core		3
Credits		15

Fourth Year**Fall**

Select one of the following:		3-4
BI 311	GENETICS	
BB 314	CELL AND MOLECULAR BIOLOGY	
BI 370	ECOLOGY	
BI 445	EVOLUTION	
MB 302	GENERAL MICROBIOLOGY	3
MB 303	GENERAL MICROBIOLOGY LABORATORY	2
Select one of the following:		3
Biology and Society		
Organismal Biology		
Physiology		
Writing Intensive Course		
Electives		4
Credits		16

Winter

Select one of the following:		3
Biology and Society		
Organismal Biology		
Physiology		
Writing Intensive Course		
Experiential Learning or Integrative Biology Elective		3
Electives		6-10
Credits		14

Spring

BI 498	SENIOR BIOLOGY FIELD TEST	0
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Electives	11-15
Credits	13
Total Credits	180

Biology - TRACK II**First Year**

Fall		Credits
BI 197 or BI 198	PROFESSIONAL DEVELOPMENT I: HEALTH PROFESSIONS or PROFESSIONAL DEVELOPMENT I: BIOLOGY AND ZOOLOGY	1
BI 221	*PRINCIPLES OF BIOLOGY: CELLS	4
CH 231 & CH 261	GENERAL CHEMISTRY and *LABORATORY FOR CHEMISTRY 231	5
Bacc Core		3
HHS 231	*LIFETIME FITNESS FOR HEALTH (or PAC Course)	1-2
Credits		15
Winter		
BI 222	*PRINCIPLES OF BIOLOGY: ORGANISMS	4
CH 232 & CH 262	GENERAL CHEMISTRY and *LABORATORY FOR CHEMISTRY 232	5
Two Bacc Core courses		6
Credits		15

Spring

BI 298	PROFESSIONAL DEVELOPMENT FOR BIOLOGISTS II	1
BI 223	*PRINCIPLES OF BIOLOGY: POPULATIONS	4
CH 233 & CH 263	GENERAL CHEMISTRY and *LABORATORY FOR CHEMISTRY 233	5
MTH 251 or MTH 227	*DIFFERENTIAL CALCULUS or *CALCULUS AND PROBABILITY FOR THE LIFE SCIENCES I	4
Bacc Core		3
Credits		17

Second Year**Fall**

CH 331	ORGANIC CHEMISTRY	4
PH 201	*GENERAL PHYSICS	5
MTH 252 or MTH 228	INTEGRAL CALCULUS or CALCULUS AND PROBABILITY FOR THE LIFE SCIENCES II	4
Bacc Core		3
Credits		16

Winter

Select one of the following:		3-4
BI 311	GENETICS	
BB 314	CELL AND MOLECULAR BIOLOGY	
BI 370	ECOLOGY	
CH 332	ORGANIC CHEMISTRY	4
PH 202	*GENERAL PHYSICS	5
Bacc Core		3
Credits		16

Spring

Select one of the following:		3-4
BI 311	GENETICS	
BB 314	CELL AND MOLECULAR BIOLOGY	
BI 370	ECOLOGY	
CH 337	ORGANIC CHEMISTRY LABORATORY	4
PH 203	*GENERAL PHYSICS	5
Bacc Core		3
Credits		16

Third Year

Fall		
BB 450	GENERAL BIOCHEMISTRY	4
Select one of the following:		3-4
BI 311	GENETICS	
BB 314	CELL AND MOLECULAR BIOLOGY	
BI 370	ECOLOGY	
BI 445	EVOLUTION	
ST 351	INTRODUCTION TO STATISTICAL METHODS	4
Bacc Core		3
Credits		15

Winter		
BB 451	GENERAL BIOCHEMISTRY	3
Select one of the following:		3-4
BI 311	GENETICS	
BB 314	CELL AND MOLECULAR BIOLOGY	
BI 370	ECOLOGY	
BI 445	EVOLUTION	
ST 352	INTRODUCTION TO STATISTICAL METHODS	4
Bacc Core		3
Credits		14

Spring		
Select one of the following:		3-4
BI 311	GENETICS	
BB 314	CELL AND MOLECULAR BIOLOGY	
BI 370	ECOLOGY	
BI 445	EVOLUTION	
Select one of the following:		3
Biology and Society		
Organismal Biology		
Physiology		
Writing Intensive Course		
MB 302	GENERAL MICROBIOLOGY	3
MB 303	GENERAL MICROBIOLOGY LABORATORY	2
Bacc Core		3
Credits		14-15

Fourth Year		
Fall		
Select one of the following:		3
Biology and Society		
Organismal Biology		
Physiology		
Writing Intensive Course		
Bacc Core		3
Electives		6-10
Credits		14

Winter		
Select one of the following:		3
Biology and Society		
Organismal Biology		
Physiology		
Writing Intensive Course		
Experiential Learning or Integrative Biology Elective		3
Electives		6-10
Credits		14

Spring		
BI 498	SENIOR BIOLOGY FIELD TEST	0
Select one of the following:		3
Biology and Society		
Organismal Biology		
Physiology		

Writing Intensive Course	
Electives	8-12
Credits	14
Total Credits	180-181

Biology - TRACK III

First Year		
Fall		
BI 197 or BI 198	PROFESSIONAL DEVELOPMENT I: HEALTH PROFESSIONS or PROFESSIONAL DEVELOPMENT I: BIOLOGY AND ZOOLOGY	1
BI 221	*PRINCIPLES OF BIOLOGY: CELLS	4
CH 231 & CH 261	GENERAL CHEMISTRY and *LABORATORY FOR CHEMISTRY 231	5
Bacc Core		3
HHS 231	*LIFETIME FITNESS FOR HEALTH (or PAC Course)	1-2
Credits		15
Winter		
BI 222	*PRINCIPLES OF BIOLOGY: ORGANISMS	4
CH 232 & CH 262	GENERAL CHEMISTRY and *LABORATORY FOR CHEMISTRY 232	5
Two Bacc Core courses		6
Credits		15

Spring		
BI 298	PROFESSIONAL DEVELOPMENT FOR BIOLOGISTS II	1
BI 223	*PRINCIPLES OF BIOLOGY: POPULATIONS	4
CH 233 & CH 263	GENERAL CHEMISTRY and *LABORATORY FOR CHEMISTRY 233	5
MTH 251 or MTH 227	*DIFFERENTIAL CALCULUS or *CALCULUS AND PROBABILITY FOR THE LIFE SCIENCES I	4
Bacc Core		3
Credits		17

Second Year		
Fall		
Select one of the following:		3-4
BI 311	GENETICS	
BB 314	CELL AND MOLECULAR BIOLOGY	
BI 370	ECOLOGY	
BI 445	EVOLUTION	
CH 331	ORGANIC CHEMISTRY	4
MTH 252 or MTH 228	INTEGRAL CALCULUS or CALCULUS AND PROBABILITY FOR THE LIFE SCIENCES II	4
Bacc Core		3
Credits		15

Winter		
Select one of the following:		3-4
BI 311	GENETICS	
BB 314	CELL AND MOLECULAR BIOLOGY	
BI 370	ECOLOGY	
BI 445	EVOLUTION	
CH 332	ORGANIC CHEMISTRY	4
ST 351	INTRODUCTION TO STATISTICAL METHODS	4
Bacc Core		3
Credits		15

Spring		
Select one of the following:		3-4
BI 311	GENETICS	
BB 314	CELL AND MOLECULAR BIOLOGY	
BI 370	ECOLOGY	
BI 445	EVOLUTION	

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CH 337	ORGANIC CHEMISTRY LABORATORY	4
ST 352	INTRODUCTION TO STATISTICAL METHODS	4
Bacc Core		3
	Credits	15

Third Year

Fall		
BB 450	GENERAL BIOCHEMISTRY	4
Select one of the following:		3-4
BI 311	GENETICS	
BB 314	CELL AND MOLECULAR BIOLOGY	
BI 370	ECOLOGY	
BI 445	EVOLUTION	
PH 201	*GENERAL PHYSICS	5
Bacc Core		3
	Credits	16

Winter

BB 451	GENERAL BIOCHEMISTRY	3
PH 202	*GENERAL PHYSICS	5
Select one of the following:		3
Biology and Society		
Organismal Biology		
Physiology		
Writing Intensive Course		
Bacc Core		3
	Credits	14

Spring

MB 302	GENERAL MICROBIOLOGY	3
MB 303	GENERAL MICROBIOLOGY LABORATORY	2
PH 203	*GENERAL PHYSICS	5
Select one of the following:		3
Biology and Society		
Organismal Biology		
Physiology		
Writing Intensive Course		
Elective		3
	Credits	16

Fourth Year

Fall		
Select one of the following:		3
Biology and Society		
Organismal Biology		
Physiology		
Writing Intensive Course		
Electives		8-12
	Credits	13

Winter

Select one of the following:		3
Biology and Society		
Organismal Biology		
Physiology		
Writing Intensive Course		
Experiential Learning or Integrative Biology Elective		3
Electives		5-10
	Credits	14

Spring

BI 498	SENIOR BIOLOGY FIELD TEST	0
Electives		15
	Credits	15
	Total Credits	180