B.S. IN BIOLOGY

Overview

The B.S. degree is recommended as preparation for medical school, veterinary school, dental school, masters and Ph.D. programs in biology, careers in biological research, conservation and environmental management, and teaching at the high school and college level. Biology majors can also choose to specialize their major through three ***optional*** tracks:

- Pre-Health
- Molecular, Cellular, and Developmental Biology (MCDB)
- Ecology and Evolutionary Biology (EEB)

Curriculum Requirements: General Biology

Code	Title	Credit Hours
Biology Core Courses		
Two semesters of introductory biology plus labs are required, usually taken in the first year:		
BIL 150	General Biology	4
BIL 151	General Biology Laboratory	1
or BIL 153	Introductory Biology/Chemistry Laboratory I	
BIL 160	Evolution and Biodiversity	4
BIL 161	Evolution and Biodiversity Laboratory	1
or BIL 163	Introductory Biology/Chemistry Laboratory II	
BIL 250	Genetics	3
Select three of the following upper level required biology core courses		9
BIL 255	Cellular and Molecular Biology	
BIL 320	Evolutionary Biology	
BIL 330	Ecology	
BIL 360	Comparative Physiology	
Additional BIL electives		**12**
At least three credit hours of additional BIL electives must be at the 400-level or higher		
At least one BIL elective must be a CAPSTONE course. Capstone courses can be located in Class Search under "Additional Search Criteria", subheading "Class Attributes". All seminars in Biology (BIL 374, BIL 375 and BIL 402) are capstones.		
Two biology laboratory or field courses beyond <BIL 151 or BIL 153> and <BIL 161 or BIL 163> are required as part of the additional BIL electives. Approved laboratory/field courses at the 300 level or higher in departments other than Biology (e.g., BMB, MIC, MSC, NEU) can be counted towards this lab requirement. Check with the Department of Biology to confirm that a specific course is allowed to fulfill this requirement.		
Up to eight credit hours toward the major may be selected from courses with a biological topic and numbered 300 or higher in MBE, MES, MSC, or OCE.		
A maximum of two credit hours of the following may be applied towards the major		
BIL 371	Readings in Biology	
BIL 372	Readings in Biology	
A maximum of six credit hours of the following may be applied towards the major. (Only one of these may be counted towards the lab/field course requirement.)		
BIL 495	Projects in Biology	
BIL 496	Projects in Biology	
BIL 497	Projects in Biology	
A maximum of three total credit hours from the following courses may be applied towards the major. The courses in this list may be taken more than once, but only one each will count towards the major. However, these courses may be taken additional times for general elective credit only.		
BIL 381	Workshop Leaders in Biology I	
BIL 382	Workshop Leaders in Biology II	
BIL 481	Undergraduate Teaching Assistant Training in Biology	
BIL 482	PRISM Teaching Fellow	
Chemistry		

Three semesters (16 credits) of chemistry are required for the biology major.		16
CHM 121 & CHM 113	Principles of Chemistry and Chemistry Laboratory I	
CHM 221 & CHM 205	Introduction to Structure and Dynamics and Chemical Dynamics Laboratory	
CHM 222 & CHM 206	Organic Reactions and Synthesis and Organic Reactions and Synthesis Laboratory	
Statistics or Computer Language/Programming		
Select one statistics or one computer language/programming course from the following. This will fulfill the mathematics/statistics/computer programming requirement under the College of Arts and Sciences General degree requirements for the Bachelor of Science.		3-4
BIL 511	Advanced Biostatistics	
ECS 204	Environmental Statistics	
MSC 204	Environmental Statistics	
MTH 224	Introduction to Probability and Statistics	
PSY 291	Introduction to Biobehavioral Statistics	
PSY 292	Introduction to Biobehavioral Statistics Section B	
CSC 120	Computer Programming I	
Physics		
Select one of the following Options:		10-11
Option One:		
PHY 101 & PHY 106	College Physics I and College Physics Laboratory I	
PHY 102 & PHY 108	College Physics II and College Physics Laboratory II	
Option Two:		
PHY 201 & PHY 106	University Physics I for the Sciences and College Physics Laboratory I	
PHY 202 & PHY 108	University Physics II for the Sciences and College Physics Laboratory II	
Option Three:		
PHY 211 & PHY 106	University Physics I for PRISM and College Physics Laboratory I	
PHY 212 & PHY 108	University Physics II for PRISM and College Physics Laboratory II	
Option Four:		
PHY 221	University Physics I	
PHY 222 & PHY 224	University Physics II and University Physics II Lab	
PHY 223 & PHY 225	University Physics III and University Physics III Lab	
Minor		**1-16**
Total credit hours for the minor will vary by department.		
The CHM requirement for the BS in biology fulfills either 12 or 15 (depending on which option is selected) of the 16 credits necessary for the minor in Chemistry. To complete the minor in Chemistry, only 1-4 additional credits in CHM are required beyond those necessary for the BS in Biology.		
General Education Requirements		
Written Communication Skills:		
WRS 105	First-Year Writing I	3
ENG 106	Writing About Literature and Culture	3
or WRS 106	First-Year Writing II	
or WRS 107	First-Year Writing II: STEM	
Quantitative Skills:		
MTH 161	Calculus I	4

Areas of Knowledge:		
Arts and Humanities Cognate		9
People and Society Cognate		9
STEM Cognate (9 credits) (fulfilled through the major)		
Additional Required Courses		
MTH 162	Calculus II	4
Language, one 200-level course		3
Electives		6-31
Total Credit Hours		**120-121**

Curriculum Requirements: Pre-Health Track

Code	Title	Credit Hours
Biology Core Courses		
Two semesters of introductory biology plus labs are required, usually taken in the first year:		
BIL 150	General Biology	4
BIL 151	General Biology Laboratory	1
or BIL 153	Introductory Biology/Chemistry Laboratory I	
BIL 160	Evolution and Biodiversity	4
BIL 161	Evolution and Biodiversity Laboratory	1
or BIL 163	Introductory Biology/Chemistry Laboratory II	
BIL 250	Genetics	3
BIL 255	Cellular and Molecular Biology	3
BIL 360	Comparative Physiology	3
BIL 320	Evolutionary Biology	3
or BIL 330	Ecology	
Additional BIL electives		**12**
At least three credit hours of additional BIL electives must be at the 400-level or higher		
At least one BIL elective must be a CAPSTONE course. Capstone courses can be located in Class Search under "Additional Search Criteria", subheading "Class Attributes". All seminars in Biology (BIL 374, BIL 375 and BIL 402) are capstones.		
Two biology laboratory or field courses beyond <BIL 151 or BIL 153> and <BIL 161 or BIL 163> are required as part of the additional BIL electives. Approved laboratory/field courses at the 300 level or higher in departments other than Biology (e.g., BMB, MIC, MSC, NEU) can be counted towards this lab requirement. Check with the Department of Biology to confirm that a specific course is allowed to fulfill this requirement.		
Up to eight credit hours toward the major may be selected from courses with a biological topic and numbered 300 or higher in MBE, MES, MSC, or OCE.		
A maximum of two credit hours of the following may be applied towards the major		
BIL 371	Readings in Biology	
BIL 372	Readings in Biology	
A maximum of six credit hours of the following may be applied towards the major. (Only one of these may be counted towards the lab/field course requirement.)		
BIL 495	Projects in Biology	
BIL 496	Projects in Biology	
BIL 497	Projects in Biology	
A maximum of three total credit hours from the following courses may be applied towards the major. Any course in this list may be taken only once to count towards the major. However, these courses may be taken additional times for general elective credit only.		
BIL 381	Workshop Leaders in Biology I	
BIL 382	Workshop Leaders in Biology II	
BIL 481	Undergraduate Teaching Assistant Training in Biology	
BIL 482	PRISM Teaching Fellow	
Chemistry		
Three semesters (16 credits) of chemistry are required for the biology major.		16

CHM 121 & CHM 113	Principles of Chemistry and Chemistry Laboratory I	
CHM 221 & CHM 205	Introduction to Structure and Dynamics and Chemical Dynamics Laboratory	
CHM 222 & CHM 206	Organic Reactions and Synthesis and Organic Reactions and Synthesis Laboratory	
Biochemistry		
BMB 401	Biochemistry for the Biomedical Sciences	4
Statistics or Computer Language/Programming		
Select one statistics or one computer language/programming course from the following. This will fulfill the mathematics/statistics/computer programming requirement under the College of Arts and Sciences General degree requirements for the Bachelor of Science.		3-4
BIL 511	Advanced Biostatistics	
ECS 204	Environmental Statistics	
MSC 204	Environmental Statistics	
MTH 224	Introduction to Probability and Statistics	
PSY 291	Introduction to Biobehavioral Statistics	
PSY 292	Introduction to Biobehavioral Statistics Section B	
CSC 120	Computer Programming I	
Physics		
Select one of the following Options:		10-11
Option One:		
PHY 101 & PHY 106	College Physics I and College Physics Laboratory I	
PHY 102 & PHY 108	College Physics II and College Physics Laboratory II	
Option Two:		
PHY 201 & PHY 106	University Physics I for the Sciences and College Physics Laboratory I	
PHY 202 & PHY 108	University Physics II for the Sciences and College Physics Laboratory II	
Option Three:		
PHY 211 & PHY 106	University Physics I for PRISM and College Physics Laboratory I	
PHY 212 & PHY 108	University Physics II for PRISM and College Physics Laboratory II	
Option Four:		
PHY 221	University Physics I	
PHY 222 & PHY 224	University Physics II and University Physics II Lab	
PHY 223 & PHY 225	University Physics III and University Physics III Lab	
Minor		**1-16**
Total credit hours for the minor will vary by department.		
The CHM requirement for the BS in biology fulfills either 12 or 15 (depending on which option is selected) of the 16 credits necessary for the minor in Chemistry. To complete the minor in Chemistry, only 1-4 additional credits in CHM are required beyond those necessary for the BS in Biology.		
General Education Requirements		
Written Communication Skills:		
WRS 105	First-Year Writing I	3
ENG 106	Writing About Literature and Culture	3
or WRS 106	First-Year Writing II	
or WRS 107	First-Year Writing II: STEM	
Quantitative Skills:		

MTH 161	Calculus I	4
Areas of Knowledge:		
Arts and Humanities Cognate		9
People and Society Cognate		9
STEM Cognate (9 credits) (fulfilled through the major)		
Additional Required Courses		
MTH 162	Calculus II	4
Language, one 200-level course		3
Electives		17-27
Total Credit Hours		**120-121**

Curriculum Requirements: Molecular, Cellular, and Developmental Biology Track

Code	Title	Credit Hours
Biology Core Courses		
Two semesters of introductory biology plus labs are required, usually taken in the first year:		
BIL 150	General Biology	4
BIL 151	General Biology Laboratory	1
or BIL 153	Introductory Biology/Chemistry Laboratory I	
BIL 160	Evolution and Biodiversity	4
BIL 161	Evolution and Biodiversity Laboratory	1
or BIL 163	Introductory Biology/Chemistry Laboratory II	
BIL 250	Genetics	3
BIL 255	Cellular and Molecular Biology	3
BIL 360	Comparative Physiology	3
BIL 320	Evolutionary Biology	3
or BIL 330	Ecology	
Additional BIL electives		
Two of the following:		6
BIL 268	Neurobiology	
BIL 354	Biology of Viruses	
BIL 365	Endocrinology	
BIL 369	Biology of Aging	
BIL 450	The Biology of Symbiosis	
BIL 455	Developmental Biology	
BIL 467	Biology of Cancer	
BIL 468	Developmental Neuroscience	
Or other, approved MCDB-related courses		
Other BIL electives		6
Two lab/field courses (BIL 495, BIL 496, or BIL 497 can count for one). At least one needs to be:		
BIL 251	Genetics Laboratory	
BIL 256	Cellular and Molecular Biology Laboratory	
BIL 351	Molecular Genetics Laboratory	
At least three credit hours of BIL electives must be at the 400-level or higher		
At least one BIL elective must be a CAPSTONE course. Capstone courses can be located in Class Search under "Additional Search Criteria", subheading "Class Attributes". All seminars in Biology (BIL 374, BIL 375 and BIL 402) are capstones.		
Up to eight credit hours toward the major may be selected from courses with a biological topic and numbered 300 or higher in MBE, MES, MSC, or OCE.		
A maximum of two credit hours of the following may be applied towards the major		
BIL 371	Readings in Biology	
BIL 372	Readings in Biology	
A maximum of six credit hours of the following may be applied towards the major. (Only one of these may be counted towards the lab/field course requirement.)		

BIL 495	Projects in Biology	
BIL 496	Projects in Biology	
BIL 497	Projects in Biology	
A maximum of three total credit hours from the following courses may be applied towards the major. Any course in this list may be taken only once to count towards the major. However, these courses may be taken additional times for general elective credit only.		
BIL 381	Workshop Leaders in Biology I	
BIL 382	Workshop Leaders in Biology II	
BIL 481	Undergraduate Teaching Assistant Training in Biology	
BIL 482	PRISM Teaching Fellow	
Chemistry		
Three semesters (16 credits) of chemistry are required for the biology major.		16
CHM 121 & CHM 113	Principles of Chemistry and Chemistry Laboratory I	
CHM 221 & CHM 205	Introduction to Structure and Dynamics and Chemical Dynamics Laboratory	
CHM 222 & CHM 206	Organic Reactions and Synthesis and Organic Reactions and Synthesis Laboratory	
Biochemistry		
BMB 401	Biochemistry for the Biomedical Sciences	4
Statistics or Computer Language/Programming		
Select one statistics or one computer language/programming course from the following. This will fulfill the mathematics/statistics/computer programming requirement under the College of Arts and Sciences General degree requirements for the Bachelor of Science.		3-4
BIL 511	Advanced Biostatistics	
ECS 204	Environmental Statistics	
MSC 204	Environmental Statistics	
MTH 224	Introduction to Probability and Statistics	
PSY 291	Introduction to Biobehavioral Statistics	
PSY 292	Introduction to Biobehavioral Statistics Section B	
CSC 120	Computer Programming I	
Physics		
Select one of the following Options:		10-11
Option One:		
PHY 101 & PHY 106	College Physics I and College Physics Laboratory I	
PHY 102 & PHY 108	College Physics II and College Physics Laboratory II	
Option Two:		
PHY 201 & PHY 106	University Physics I for the Sciences and College Physics Laboratory I	
PHY 202 & PHY 108	University Physics II for the Sciences and College Physics Laboratory II	
Option Three:		
PHY 211 & PHY 106	University Physics I for PRISM and College Physics Laboratory I	
PHY 212 & PHY 108	University Physics II for PRISM and College Physics Laboratory II	
Option Four:		
PHY 221	University Physics I	
PHY 222 & PHY 224	University Physics II and University Physics II Lab	
PHY 223 & PHY 225	University Physics III and University Physics III Lab	

Minor		**1-16**
Total credit hours for the minor will vary by department.		
The CHM requirement for the BS in biology fulfills either 12 or 15 (depending on which option is selected) of the 16 credits necessary for the minor in Chemistry. To complete the minor in Chemistry, only 1-4 additional credits in CHM are required beyond those necessary for the BS in Biology.		
General Education Requirements		
Written Communication Skills:		
WRS 105	First-Year Writing I	3
ENG 106	Writing About Literature and Culture	3
or WRS 106	First-Year Writing II	
or WRS 107	First-Year Writing II: STEM	
Quantitative Skills:		
MTH 161	Calculus I	4
Areas of Knowledge:		
Arts and Humanities Cognate		9
People and Society Cognate		9
STEM Cognate (9 credits) (fulfilled through the major)		
Additional Required Courses		
MTH 162	Calculus II	4
Language, one 200-level course		3
Electives		17-27
Total Credit Hours		**120-121**

Curriculum Requirements: Ecology and Evolutionary Biology Track

Code	Title	Credit Hours
Biology Core Courses		
Two semesters of introductory biology plus labs are required, usually taken in the first year:		
BIL 150	General Biology	4
BIL 151	General Biology Laboratory	1
or BIL 153	Introductory Biology/Chemistry Laboratory I	
BIL 160	Evolution and Biodiversity	4
BIL 161	Evolution and Biodiversity Laboratory	1
or BIL 163	Introductory Biology/Chemistry Laboratory II	
BIL 250	Genetics	3
BIL 320	Evolutionary Biology	3
BIL 330	Ecology	3
BIL 255	Cellular and Molecular Biology	3
or BIL 360	Comparative Physiology	
Additional BIL electives		
Four courses that represent diversity studies, conservation, animal behavior, ecology, or evolution. These might include:		12
BIL 222	Plant Diversity	
BIL 223	Plants and People	
BIL 226	General Botany	
BIL 261	High Altitude Biology and Medicine	
BIL 322	Biology of Fungi	
BIL 333	Conservation Biology	
BIL 334	Biogeography and Conservation	
BIL 340	Herpetology	
BIL 354	Biology of Viruses	
BIL 430	Tropical Ecology	
BIL 441	Animal Behavior	
BIL 450	The Biology of Symbiosis	

BIL 551	Population Genetics and Genomics	
BIL 556	Ecological and Evolutionary Genomics	
UM Galapagos Program courses		
Other approved EEB-eligible courses		
Other BIL electives		10
Three lab/field courses (BIL 495, BIL 496, or BIL 497 can count for one).		
At least three credit hours of BIL electives must be at the 400-level or higher		
At least one BIL elective must be a CAPSTONE course. Capstone courses can be located in Class Search under "Additional Search Criteria", subheading "Class Attributes". All seminars in Biology (BIL 374, BIL 375 and BIL 402) are capstones.		
Up to eight credit hours toward the major may be selected from courses with a biological topic and numbered 300 or higher in MBE, MES, MSC, or OCE.		
A maximum of two credit hours of the following may be applied towards the major		
BIL 371	Readings in Biology	
BIL 372	Readings in Biology	
A maximum of six credit hours of the following may be applied towards the major. (Only one of these may be counted towards the lab/field course requirement.)		
BIL 495	Projects in Biology	
BIL 496	Projects in Biology	
BIL 497	Projects in Biology	
A maximum of three total credit hours from the following courses may be applied towards the major. Any course in this list may be taken only once to count towards the major. However, these courses may be taken additional times for general elective credit only.		
BIL 381	Workshop Leaders in Biology I	
BIL 382	Workshop Leaders in Biology II	
BIL 481	Undergraduate Teaching Assistant Training in Biology	
BIL 482	PRISM Teaching Fellow	
Chemistry		
Two semesters (10 credits) of chemistry including labs are required.		10
CHM 121 & CHM 113	Principles of Chemistry and Chemistry Laboratory I	
CHM 221 & CHM 205	Introduction to Structure and Dynamics and Chemical Dynamics Laboratory	
Statistics or Computer Language/Programming		
Select one statistics or one computer language/programming course from the following. This will fulfill the mathematics/statistics/computer programming requirement under the College of Arts and Sciences General degree requirements for the Bachelor of Science.		3-4
BIL 511	Advanced Biostatistics	
ECS 204	Environmental Statistics	
MSC 204	Environmental Statistics	
MTH 224	Introduction to Probability and Statistics	
PSY 291	Introduction to Biobehavioral Statistics	
PSY 292	Introduction to Biobehavioral Statistics Section B	
CSC 120	Computer Programming I	
Physics		
Select one of the following:		5
PHY 101 & PHY 106	College Physics I and College Physics Laboratory I	
PHY 201 & PHY 106	University Physics I for the Sciences and College Physics Laboratory I	
PHY 211 & PHY 106	University Physics I for PRISM and College Physics Laboratory I	
Minor		**1-16**
Total credit hours for the minor will vary by department.		

The CHM requirement for the BS in biology fulfills either 12 or 15 (depending on which option is selected) of the 16 credits necessary for the minor in Chemistry. To complete the minor in Chemistry, only 1-4 additional credits in CHM are required beyond those necessary for the BS in Biology.		
General Education Requirements		
Written Communication Skills:		
WRS 105	First-Year Writing I	3
ENG 106	Writing About Literature and Culture	3
or WRS 106	First-Year Writing II	
or WRS 107	First-Year Writing II: STEM	
Quantitative Skills:		
MTH 161	Calculus I	4
Areas of Knowledge:		
Arts and Humanities Cognate		9
People and Society Cognate		9
STEM Cognate (9 credits) (fulfilled through the major)		
Additional Required Courses		
MTH 162	Calculus II	4
Language, one 200-level course		3
Electives		22-28
Total Credit Hours		**120-121**

Suggested Plan of Study: General Biology

Year One		
Fall		**Credit Hours**
BIL 150	General Biology	4
BIL 151 or 153	General Biology Laboratory or Introductory Biology/Chemistry Laboratory I	1
CHM 121	Principles of Chemistry	4
CHM 113	Chemistry Laboratory I	1
MTH 161	Calculus I	4
WRS 105	First-Year Writing I	3
	Credit Hours	**17**
Spring		
BIL 160	Evolution and Biodiversity	4
BIL 161 or 163	Evolution and Biodiversity Laboratory or Introductory Biology/Chemistry Laboratory II	1
CHM 221	Introduction to Structure and Dynamics	4
CHM 205	Chemical Dynamics Laboratory	1
WRS 106, 107, or ENG 106	First-Year Writing II or First-Year Writing II: STEM or Writing About Literature and Culture	3
MTH 162	Calculus II	4
	Credit Hours	**17**
Year Two		
Fall		
BIL 250 or 255	Genetics or Cellular and Molecular Biology	3
CHM 222	Organic Reactions and Synthesis	4
CHM 206	Organic Reactions and Synthesis Laboratory	2
Language 101		3
Statistics or Computer Science Course		3
Arts and Humanities Cognate Course		3
	Credit Hours	**18**

Spring		
BIL 250 or 255	Genetics or Cellular and Molecular Biology	3
BIL 330 or 320	Ecology or Evolutionary Biology	3
BIL 374, 375, or 402	Seminar in Biology or Seminar in Biology or Seminar in Biology	1
BIL Lab (note: Some BIL labs are available for WRI credit. Check course listings for more information.)		1-2
Language 102		3
People and Society Cognate course		3
Elective		3
	Credit Hours	**17-18**
Year Three		
Fall		
BIL 250, 255, or 360	Genetics or Cellular and Molecular Biology or Comparative Physiology	3
BIL 330 or 320	Ecology or Evolutionary Biology	3
PHY 101, 201, or 211	College Physics I or University Physics I for the Sciences or University Physics I for PRISM	4
PHY 106	College Physics Laboratory I	1
People and Society Cognate course (WRI)		3
Language 2XX		3
	Credit Hours	**17**
Spring		
Biology Lab/Field course		1-3
PHY 102, 202, or 212	College Physics II or University Physics II for the Sciences or University Physics II for PRISM	4
PHY 108	College Physics Laboratory II	1
Arts and Humanities Cognate (WRI)		3
Elective		6
	Credit Hours	**15-17**
Year Four		
Fall		
BIL Elective		3
Biology Lab/Field course		1-3
BIL Elective		3
Arts and Humanities Cognate		3
Elective (WRI)		3
BIL 375, 374, or 402	Seminar in Biology or Seminar in Biology or Seminar in Biology	1
	Credit Hours	**14-16**
Spring		
BIL Elective		3
BIL Elective		1
Elective (WRI)		3
People and Society Cognate		3
Elective		1-3

Elective		3
	Credit Hours	**14-16**
	Total Credit Hours	**129-136**

Suggested Plan of Study: Pre-Health Track Suggested Plan of Study

Year One		
Fall		**Credit Hours**
BIL 150	General Biology	4
BIL 151 or 153	General Biology Laboratory or Introductory Biology/Chemistry Laboratory I	1
CHM 121	Principles of Chemistry	4
CHM 113	Chemistry Laboratory I	1
MTH 161	Calculus I	4
WRS 105	First-Year Writing I	3
	Credit Hours	**17**
Spring		
BIL 160	Evolution and Biodiversity	4
BIL 161 or 163	Evolution and Biodiversity Laboratory or Introductory Biology/Chemistry Laboratory II	1
CHM 221	Introduction to Structure and Dynamics	4
CHM 205	Chemical Dynamics Laboratory	1
WRS 106, 107, or ENG 106	First-Year Writing II or First-Year Writing II: STEM or Writing About Literature and Culture	3
MTH 162	Calculus II	4
	Credit Hours	**17**
Year Two		
Fall		
BIL 250 or 255	Genetics or Cellular and Molecular Biology	3
CHM 222	Organic Reactions and Synthesis	4
CHM 206	Organic Reactions and Synthesis Laboratory	2
Language 101		3
Statistics or Computer Science Course		3
Arts and Humanities Cognate Course		3
	Credit Hours	**18**
Spring		
BIL 250 or 255	Genetics or Cellular and Molecular Biology	3
BIL 330 or 320	Ecology or Evolutionary Biology	3
BIL 374, 375, or 402	Seminar in Biology or Seminar in Biology or Seminar in Biology	1
BIL Lab with an MCDB focus (e.g. BIL 251, 256, or 351; note: Some BIL labs are available for WRI credit. Check course listings for more information.)		1-2
Language 102		3
People and Society Cognate course		3
Elective		3
	Credit Hours	**17-18**
Year Three		
Fall		
BIL 360	Comparative Physiology	3

BMB 401	Biochemistry for the Biomedical Sciences	4
PHY 101, 201, or 211	College Physics I or University Physics I for the Sciences or University Physics I for PRISM	4
PHY 106	College Physics Laboratory I	1
People and Society Cognate course (WRI)		3
Language 2XX		3
	Credit Hours	**18**
Spring		
Biology Lab/Field course		1-3
PHY 102, 202, or 212	College Physics II or University Physics II for the Sciences or University Physics II for PRISM	4
PHY 108	College Physics Laboratory II	1
Arts and Humanities Cognate (WRI)		3
Elective		6
	Credit Hours	**15-17**
Year Four		
Fall		
BIL Elective with an MCDB focus		3
Biology Lab/Field course		1-3
BIL Elective		3
Arts and Humanities Cognate		3
Elective (WRI)		3
BIL 375, 374, or 402	Seminar in Biology or Seminar in Biology or Seminar in Biology	1
	Credit Hours	**14-16**
Spring		
BIL Elective with an MCDB focus		3
BIL Elective		1
Elective (WRI)		3
People and Society Cognate		3
Elective		1-3
	Credit Hours	**11-13**
	Total Credit Hours	**127-134**

Suggested Plan of Study: Ecology and Evolutionary Biology (EEB) Track

Year One		
Fall		**Credit Hours**
BIL 150	General Biology	4
BIL 151 or 153	General Biology Laboratory or Introductory Biology/Chemistry Laboratory I	1
CHM 121	Principles of Chemistry	4
CHM 113	Chemistry Laboratory I	1
MTH 161	Calculus I	4
WRS 105	First-Year Writing I	3
	Credit Hours	**17**
Spring		
BIL 160	Evolution and Biodiversity	4
BIL 161 or 163	Evolution and Biodiversity Laboratory or Introductory Biology/Chemistry Laboratory II	1
CHM 221	Introduction to Structure and Dynamics	4

CHM 205	Chemical Dynamics Laboratory	1
WRS 106, 107, or ENG 106	First-Year Writing II or First-Year Writing II: STEM or Writing About Literature and Culture	3
MTH 162	Calculus II	4
	Credit Hours	**17**
Year Two		
Fall		
BIL 250	Genetics	3
BIL 255 or 360	Cellular and Molecular Biology or Comparative Physiology	3
Language 101		3
Statistics or Computer Science Course		3
Arts and Humanities Cognate Course		3
BIL 374, 375, or 402	Seminar in Biology or Seminar in Biology or Seminar in Biology	1
	Credit Hours	**16**
Spring		
BIL 330 or 320	Ecology or Evolutionary Biology	3
BIL Lab or field course (note: Some BIL labs are available for WRI credit. Check course listings for more information.)		1-3
Language 102		3
People and Society Cognate course		3
Elective		3
BIL elective with an EEB focus		3
	Credit Hours	**16-18**
Year Three		
Fall		
BIL 330 or 320	Ecology or Evolutionary Biology	3
BIL Lab or field course (note: Some BIL labs are available for WRI credit. Check course listings for more information.)		1-3
PHY 101, 201, or 211	College Physics I or University Physics I for the Sciences or University Physics I for PRISM	4
PHY 106	College Physics Laboratory I	1
People and Society Cognate course (WRI)		3
Language 2XX		3
	Credit Hours	**15-17**
Spring		
BIL 255 or 360	Cellular and Molecular Biology or Comparative Physiology	3
BIL Elective with an EEB focus		3
BIL Lab or field course (note: Some BIL labs are available for WRI credit. Check course listings for more information.)		1-3
Arts and Humanities Cognate (WRI)		3
Elective		6
	Credit Hours	**16-18**
Year Four		
Fall		
BIL Elective with an EEB focus		3
Biology Lab/Field course		1-3
BIL Elective		3
Arts and Humanities Cognate		3

Elective (WRI)		3
BIL 375, 374, or 402	Seminar in Biology or Seminar in Biology or Seminar in Biology	1
	Credit Hours	**14-16**
Spring		
BIL Elective with an EEB focus		3
BIL Elective		1
Elective (WRI)		3
People and Society Cognate		3
Elective		1-3
Elective		3
	Credit Hours	**14-16**
	Total Credit Hours	**125-135**

Student Learning Outcomes

- Students will, through a required core of courses including laboratories, demonstrate a broad knowledge base in Biology.
- Students will, through exposure to biological concepts, inquiry-based learning and biological research, develop the ability to think critically and to formulate and test hypotheses.
- Students will, through courses intensive in research presentations, develop presentation skills sufficient to communicate scientific information to professional and public audiences.
- Students will, through exposure to biological concepts, inquiry-based learning and biological research, develop the ability to think critically and understand proper application of the scientific method.