# **Biology Major**

#### Area of Emphasis

Students must complete requirements in one of the following areas of emphasis:

- Animal Biology
- Animal Biology (Accelerated) Integrated with graduate Environmental Science & Policy program
- Aquaculture
- Aquatic Ecology and Fisheries Emphasis
- · Biology for Educators
- Cell/Molecular
- Ecology and Conservation
  - Ecology and Conservation (Accelerated) Integrated with graduate Environmental Science & Policy Program
- Microbiology
- Pre-Veterinary

#### **Animal Biology**

Code Supporting Courses	Title	Credits 25-29
BIOLOGY 201 & BIOLOGY 202	Principles of Biology: Cellular and Molecular Processes and Principles of Biology Lab: Cellular and Molecular Processes	20 23
BIOLOGY 203 & BIOLOGY 204	Principles of Biology: Organisms, Ecology, and Evolution and Principles of Biology Lab: Organisms, Ecology, and Evolution	
CHEM 211 & CHEM 213	Principles of Chemistry I and Principles of Chemistry I Laboratory	
CHEM 212 & CHEM 214	Principles of Chemistry II and Principles of Chemistry II Laboratory	
MATH 260	Introductory Statistics	
Mathematics (choose one cours	se):	
MATH 104	Precalculus	
MATH 202	Calculus and Analytic Geometry I	
ENV SCI 336	Environmental Statistics	
ENV SCI 337	Environmental GIS	
Writing (choose one course): <sup>1</sup>		
INFO SCI 390	Technical Writing	
WF 105	Research and Rhetoric	
Upper Level Courses		30-33
Required courses		
BIOLOGY 303	Genetics	
BIOLOGY 306	Principles of Ecology	
BIOLOGY 309	Evolutionary Biology	
BIOLOGY 311	Plant Physiology	
or BIOLOGY 346	Comparative Physiology	
Cell or Microbiology (choose or	ne):	
BIOLOGY 307	Cell Biology	
& BIOLOGY 308	and Cell Biology Laboratory	
BIOLOGY 323	Principles of Microbiology	
& BIOLOGY 324	and Principles of Microbiology Laboratory	
BIOLOGY 322	Environmental Microbiology	
Choose 12-14 credits from the f	ollowing courses:	
BIOLOGY 304	Genetics Laboratory	
BIOLOGY 310	Plant Biodiversity	
BIOLOGY 320	Field Botany	

BIOLOGY 322	Environmental Microbiology
BIOLOGY 340	Comparative Anatomy of Vertebrates
BIOLOGY 341	Ichthyology
BIOLOGY 342	Ornithology
BIOLOGY 343	Mammalogy
BIOLOGY 345	Animal Behavior
BIOLOGY 346	Comparative Physiology
BIOLOGY 355	Entomology
BIOLOGY 357	Marine Biology
BIOLOGY 365	Aquatic Invertebrates
BIOLOGY 401	Fish and Wildlife Population Dynamics
BIOLOGY 410	Developmental Biology
BIOLOGY 411	Developmental Biology Laboratory
ENV SCI 337	Environmental GIS
ENV SCI 401	Stream Ecology
ENV SCI 403	Limnology
HUM BIOL 402	Human Physiology
HUM BIOL 403	Human Physiology Laboratory
HUM BIOL 413	Neurobiology
HUM BIOL 422	Immunology
HUM BIOL 423	Immunology Lab
HUM BIOL 444	Endocrinology
BIOLOGY 449	Wetland Ecology
Seminar, 1 credit required	
BIOLOGY 490	Biology Seminar
otal Credits	55-62

1 Satisfied with an ACT English score of 32 or higher

#### Animal Biology (Accelerated) - Integrated with graduate Environmental Science & Policy program

Code	Title	Credits
Supporting Courses		25-29
BIOLOGY 201 & BIOLOGY 202	Principles of Biology: Cellular and Molecular Processes and Principles of Biology Lab: Cellular and Molecular Processes	
BIOLOGY 203 & BIOLOGY 204	Principles of Biology: Organisms, Ecology, and Evolution and Principles of Biology Lab: Organisms, Ecology, and Evolution	
CHEM 211 & CHEM 213	Principles of Chemistry I and Principles of Chemistry I Laboratory	
CHEM 212 & CHEM 214	Principles of Chemistry II and Principles of Chemistry II Laboratory	
MATH 260	Introductory Statistics	
Mathematics (choose one cour	se):	
MATH 104	Precalculus	
MATH 202	Calculus and Analytic Geometry I	
ENV SCI 336	Environmental Statistics	
ENV SCI 337	Environmental GIS	
Writing (choose one course): <sup>1</sup>		
INFO SCI 390	Technical Writing	
WF 105	Research and Rhetoric	
Upper Level Courses		30-33
Required courses		
BIOLOGY 303	Genetics	

т	otal Credits		55-62
	BIOLOGY 490	Biology Seminar	
	Seminar, 1 credit required		
	HUM BIOL 444	Endocrinology	
	HUM BIOL 423	Immunology Lab	
	HUM BIOL 422	Immunology	
	HUM BIOL 413	Neurobiology	
	HUM BIOL 403	Human Physiology Laboratory	
	HUM BIOL 402/602	Human Physiology #	
	ENV SCI 403/603	Limnology #	
	ENV SCI 401/601	Stream Ecology #	
	ENV SCI 337/537	Environmental GIS <sup>#</sup>	
	BIOLOGY 411	Developmental Biology Laboratory	
	BIOLOGY 410	Developmental Biology	
	BIOLOGY 401/601	Fish and Wildlife Population Dynamics #	
	BIOLOGY 365	Aquatic Invertebrates	
	BIOLOGY 357/557	Marine Biology <sup>#</sup>	
	BIOLOGY 355/555	Entomology #	
	BIOLOGY 346	Comparative Physiology	
	BIOLOGY 345	Animal Behavior	
	BIOLOGY 343/543	Mammalogy #	
	BIOLOGY 342/542	Ornithology <sup>#</sup>	
	BIOLOGY 341/541	Ichthyology <sup>#</sup>	
	BIOLOGY 340	Comparative Anatomy of Vertebrates	
	BIOLOGY 322/522	Environmental Microbiology #	
	BIOLOGY 320/520	Field Botany #	
	BIOLOGY 310/510	Plant Biodiversity #	
	BIOLOGY 304	Genetics Laboratory	
	Choose 12-14 credits from the fo	ollowing courses:	
	BIOLOGY 322/522	Environmental Microbiology #	
	BIOLOGY 323 & BIOLOGY 324	Principles of Microbiology and Principles of Microbiology Laboratory	
	BIOLOGY 307 & BIOLOGY 308	Cell Biology and Cell Biology Laboratory	
	Cell or Microbiology (choose on	-	
	or BIOLOGY 346	Comparative Physiology	
	BIOLOGY 311/511	Plant Physiology #	
	BIOLOGY 309	Evolutionary Biology	
	BIOLOGY 306	Principles of Ecology	

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# Students must be granted permission through the department to enroll in graduate level coursework. For more information, contact the graduate Environmental Science & Policy office or refer to the graduate catalog (http://catalog.uwgb.edu/graduate/general-information/academic-rulesregulations/undergrad-in-accelerated/).

## Aquaculture

Code	Title	Credits
Supporting Courses		28
BIOLOGY 201 & BIOLOGY 202	Principles of Biology: Cellular and Molecular Processes and Principles of Biology Lab: Cellular and Molecular Processes	
BIOLOGY 203 & BIOLOGY 204	Principles of Biology: Organisms, Ecology, and Evolution and Principles of Biology Lab: Organisms, Ecology, and Evolution	
CHEM 207	Laboratory Safety	

Тс	otal Credits		65
	BIOLOGY 490	Biology Seminar	
Se	eminar		1
	or BIOLOGY 346	Comparative Physiology	
	BIOLOGY 309	Evolutionary Biology	
	Choose one of the following cou	irses:	
	BIOLOGY 322	Environmental Microbiology	
	& BIOLOGY 323	and Principles of Microbiology Laboratory	
	& BIOLOGY 308 BIOLOGY 323	and Cell Biology Laboratory Principles of Microbiology	
	BIOLOGY 307	Cell Biology	
	Cell or Microbiology (choose on	e):	
	ENV SCI 403	Limnology	
	CHEM 300 & CHEM 301	Bio-Organic Chemistry and Bio-Organic Chemistry Laboratory	
	BIOLOGY 461	Advanced Aquaculture	
	BIOLOGY 361	Introduction to Aquaculture	
	BIOLOGY 360	Early Life History of Fish	
	BIOLOGY 341	Ichthyology	
	BIOLOGY 306	Principles of Ecology	
	BIOLOGY 303	Genetics	
	Required Courses		
U	oper Level Courses		36
	INFO SCI 390	Technical Writing	
	WF 105	Research and Rhetoric	
	Writing (choose one course):		
	ENV SCI 337	Environmental GIS	
	ENV SCI 336	Environmental Statistics	
	MATH 202	Calculus and Analytic Geometry I	
	MATH 104	Precalculus	
	Mathematics (choose one course		
	MATH 260	Introductory Statistics	
	CHEM 212 & CHEM 214	Principles of Chemistry II and Principles of Chemistry II Laboratory	
	CHEM 211 & CHEM 213	Principles of Chemistry I and Principles of Chemistry I Laboratory	

# Aquatic Ecology and Fisheries

Code	Title	Credits
Supporting Courses		28
BIOLOGY 201 & BIOLOGY 202	Principles of Biology: Cellular and Molecular Processes and Principles of Biology Lab: Cellular and Molecular Processes	
BIOLOGY 203 & BIOLOGY 204	Principles of Biology: Organisms, Ecology, and Evolution and Principles of Biology Lab: Organisms, Ecology, and Evolution	
CHEM 207	Laboratory Safety	
CHEM 211 & CHEM 213	Principles of Chemistry I and Principles of Chemistry I Laboratory	
CHEM 212 & CHEM 214	Principles of Chemistry II and Principles of Chemistry II Laboratory	
MATH 260	Introductory Statistics	
Mathematics (choose one cours	se):	
MATH 104	Precalculus	
MATH 202	Calculus and Analytic Geometry I	

Total Credits		65
BIOLOGY 490	Biology Seminar	
Seminar		1
BIOLOGY 401	Fish and Wildlife Population Dynamics	
BIOLOGY 370	Fisheries Research and Management	
Choose one of the follo	owing courses:	
ENV SCI 403	Limnology	
ENV SCI 401	Stream Ecology	
Choose one of the follo	owing courses:	
BIOLOGY 365	Aquatic Invertebrates	
BIOLOGY 341	Ichthyology	
Choose one of the follo	owing courses:	
BIOLOGY 449	Wetland Ecology	
BIOLOGY 360	Early Life History of Fish	
BIOLOGY 346	Comparative Physiology	
BIOLOGY 322	Environmental Microbiology	
BIOLOGY 309	Evolutionary Biology	
BIOLOGY 306	Principles of Ecology	
BIOLOGY 303	Genetics	
Required Courses		
Upper Level Courses		36
INFO SCI 390	Technical Writing	
WF 105	Research and Rhetoric	
Writing (choose one co	ourse):	
ENV SCI 337	Environmental GIS	
ENV SCI 336	Environmental Statistics	

## **Biology for Educators**

Code	Title	Credits
Supporting Courses		25-29
BIOLOGY 201 & BIOLOGY 202	Principles of Biology: Cellular and Molecular Processes and Principles of Biology Lab: Cellular and Molecular Processes	
BIOLOGY 203 & BIOLOGY 204	Principles of Biology: Organisms, Ecology, and Evolution and Principles of Biology Lab: Organisms, Ecology, and Evolution	
CHEM 211 & CHEM 213	Principles of Chemistry I and Principles of Chemistry I Laboratory	
CHEM 212 & CHEM 214	Principles of Chemistry II and Principles of Chemistry II Laboratory	
MATH 260	Introductory Statistics	
Mathematics (choose one course	se):	
MATH 104	Precalculus	
MATH 202	Calculus and Analytic Geometry I	
ENV SCI 336	Environmental Statistics	
ENV SCI 337	Environmental GIS	
Writing (choose one course):		
INFO SCI 390	Technical Writing	
WF 105	Research and Rhetoric	
Upper Level Courses		30-33
Required courses		
BIOLOGY 303	Genetics	
BIOLOGY 306	Principles of Ecology	
BIOLOGY 309	Evolutionary Biology	

BIOLOGY 311	Plant Physiology
or BIOLOGY 346	Comparative Physiology
Cell or Microbiology (ch	oose one course):
BIOLOGY 307 & BIOLOGY 308	Cell Biology and Cell Biology Laboratory
BIOLOGY 323 & BIOLOGY 324	Principles of Microbiology and Principles of Microbiology Laboratory
Choose 12-14 credits of	the following areas:
Animal Biology (minimu	m of one course):
BIOLOGY 304	Genetics Laboratory
BIOLOGY 340	Comparative Anatomy of Vertebrates
BIOLOGY 342	Ornithology
BIOLOGY 343	Mammalogy
BIOLOGY 345	Animal Behavior
BIOLOGY 346	Comparative Physiology
BIOLOGY 353	Invertebrate Biology
BIOLOGY 355	Entomology
BIOLOGY 365	Aquatic Invertebrates
BIOLOGY 410	Developmental Biology
BIOLOGY 411	Developmental Biology Laboratory
Ecology and Conservation	on Biology (minimum of one course):
BIOLOGY 310	Plant Biodiversity
BIOLOGY 320	Field Botany
BIOLOGY 342	Ornithology
BIOLOGY 343	Mammalogy
BIOLOGY 353	Invertebrate Biology
BIOLOGY 355	Entomology
BIOLOGY 469	Conservation Biology
ENV SCI 467	Capstone in Environmental Science
ENV SCI 499	Travel Course
Cell/Molecular Biology (	minimum of one course):
BIOLOGY 304	Genetics Laboratory
BIOLOGY 307	Cell Biology
BIOLOGY 312	Mycology
BIOLOGY 323	Principles of Microbiology
BIOLOGY 402	Advanced Microbiology
BIOLOGY 407	Molecular Biology
BIOLOGY 408	Molecular Biology Laboratory
CHEM 330	Biochemistry
CHEM 331	Biochemistry Laboratory
HUM BIOL 422	Immunology
HUM BIOL 423	Immunology Lab
HUM BIOL 444	Endocrinology
Seminar, 1 credit require	ed
BIOLOGY 490	Biology Seminar
Total Credits	55-62

1

Satisfied with an ACT English score of 32 or higher

#### Cell/Molecular

Code	Title	Credits
Supporting Courses		28-29
BIOLOGY 201 & BIOLOGY 202	Principles of Biology: Cellular and Molecular Processes and Principles of Biology Lab: Cellular and Molecular Processes	
BIOLOGY 203 & BIOLOGY 204	Principles of Biology: Organisms, Ecology, and Evolution and Principles of Biology Lab: Organisms, Ecology, and Evolution	
CHEM 211 & CHEM 213	Principles of Chemistry I and Principles of Chemistry I Laboratory	
CHEM 212 & CHEM 214	Principles of Chemistry II and Principles of Chemistry II Laboratory	
MATH 260	Introductory Statistics	
Mathematics (choose one cours	se):	
MATH 104	Precalculus	
MATH 202	Calculus and Analytic Geometry I	
ENV SCI 336	Environmental Statistics	
ENV SCI 337	Environmental GIS	
Writing (choose one course): <sup>1</sup>		
INFO SCI 390	Technical Writing	
WF 105	Research and Rhetoric	
Upper Level Courses		30-33
Required courses		
BIOLOGY 303	Genetics	
BIOLOGY 306	Principles of Ecology	
BIOLOGY 307	Cell Biology	
BIOLOGY 308	Cell Biology Laboratory	
BIOLOGY 309	Evolutionary Biology	
BIOLOGY 311	Plant Physiology	
or BIOLOGY 346	Comparative Physiology	
BIOLOGY 323 & BIOLOGY 324	Principles of Microbiology and Principles of Microbiology Laboratory	
BIOLOGY 407	Molecular Biology	
Minimum of 4 credits of the follo	owing courses:	
CHEM 300 & CHEM 301	Bio-Organic Chemistry and Bio-Organic Chemistry Laboratory	
CHEM 302 & CHEM 304	Organic Chemistry I and Organic Chemistry Laboratory I	
Choose a minimum of 5 credits	from the following courses:	
BIOLOGY 304	Genetics Laboratory	
BIOLOGY 312	Mycology	
BIOLOGY 322	Environmental Microbiology	
BIOLOGY 402	Advanced Microbiology	
BIOLOGY 408	Molecular Biology Laboratory	
BIOLOGY 410	Developmental Biology	
BIOLOGY 411	Developmental Biology Laboratory	
CHEM 330	Biochemistry	
CHEM 331	Biochemistry Laboratory	
HUM BIOL 422	Immunology	
HUM BIOL 423	Immunology Lab	
HUM BIOL 444	Endocrinology	
Seminar, 1 credit required		

**BIOLOGY 490** 

**Biology Seminar** 

#### **Total Credits**

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Satisfied with an ACT English score of 32 or higher

### **Ecology and Conservation**

Code	Title	Credits
Supporting Courses		25-29
BIOLOGY 201 & BIOLOGY 202	Principles of Biology: Cellular and Molecular Processes and Principles of Biology Lab: Cellular and Molecular Processes	
BIOLOGY 203 & BIOLOGY 204	Principles of Biology: Organisms, Ecology, and Evolution and Principles of Biology Lab: Organisms, Ecology, and Evolution	
CHEM 211 & CHEM 213	Principles of Chemistry I and Principles of Chemistry I Laboratory	
CHEM 212 & CHEM 214	Principles of Chemistry II and Principles of Chemistry II Laboratory	
MATH 260	Introductory Statistics	
Mathematics (choose one cours	•	
COMP SCI 256	Introduction to Software Design	
MATH 104	Precalculus	
MATH 202	Calculus and Analytic Geometry I	
Writing (choose one course): <sup>1</sup>		
INFO SCI 390	Technical Writing	
WF 105	Research and Rhetoric	
Upper Level Courses		30-33
Required Courses		
BIOLOGY 303	Genetics	
BIOLOGY 306	Principles of Ecology	
BIOLOGY 309	Evolutionary Biology	
BIOLOGY 469	Conservation Biology	
Cell or Microbiology (choose or	ne):	
BIOLOGY 307 & BIOLOGY 308	Cell Biology and Cell Biology Laboratory	
BIOLOGY 322	Environmental Microbiology	
BIOLOGY 323 & BIOLOGY 324	Principles of Microbiology and Principles of Microbiology Laboratory	
Physiology Course (choose one	e):	
BIOLOGY 311	Plant Physiology	
or BIOLOGY 346	Comparative Physiology	
Choose a minimum of 8 credits	from the following courses:	
BIOLOGY 310	Plant Biodiversity	
BIOLOGY 311	Plant Physiology	
BIOLOGY 312	Mycology	
BIOLOGY 320	Field Botany	
BIOLOGY 322	Environmental Microbiology	
BIOLOGY 342	Ornithology	
BIOLOGY 343	Mammalogy	
BIOLOGY 355	Entomology	
BIOLOGY 365	Aquatic Invertebrates	
ENV SCI 401	Stream Ecology	
BIOLOGY 357	Marine Biology	
BIOLOGY 401	Fish and Wildlife Population Dynamics	
ENV SCI 337	Environmental GIS	

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Total Credits		55-62
BIOLOGY 490	Biology Seminar	
Seminar, 1 credit required		
ENV SCI 499	Travel Course	
BIOLOGY 449	Wetland Ecology	
ENV SCI 467	Capstone in Environmental Science	
ENV SCI 403	Limnology	

1 Satisfied with an ACT English score of 32 or higher

#### Ecology and Conservation (Accelerated) - Integrated with graduate Environmental Science & Policy program

Code	Title	Credits
Supporting Courses		25-29
BIOLOGY 201 & BIOLOGY 202	Principles of Biology: Cellular and Molecular Processes and Principles of Biology Lab: Cellular and Molecular Processes	
BIOLOGY 203 & BIOLOGY 204	Principles of Biology: Organisms, Ecology, and Evolution and Principles of Biology Lab: Organisms, Ecology, and Evolution	
CHEM 211 & CHEM 213	Principles of Chemistry I and Principles of Chemistry I Laboratory	
CHEM 212 & CHEM 214	Principles of Chemistry II and Principles of Chemistry II Laboratory	
MATH 260	Introductory Statistics	
Mathematics (choose one course	se):	
COMP SCI 256	Introduction to Software Design	
MATH 104	Precalculus	
MATH 202	Calculus and Analytic Geometry I	
Writing (choose one course): <sup>1</sup>		
ENG COMP 105	English Composition II: Composition and Rhetoric	
INFO SCI 390	Technical Writing	
Upper Level Courses		30-33
Required Courses		
BIOLOGY 303	Genetics	
BIOLOGY 306	Principles of Ecology	
BIOLOGY 309	Evolutionary Biology	
BIOLOGY 469	Conservation Biology	
Cell or Microbiology (Choose o	ne):	
BIOLOGY 307 & BIOLOGY 308	Cell Biology and Cell Biology Laboratory	
BIOLOGY 322	Environmental Microbiology	
BIOLOGY 323 & BIOLOGY 324	Principles of Microbiology and Principles of Microbiology Laboratory	
Physiology Course (choose on	e):	
BIOLOGY 311	Plant Physiology	
or BIOLOGY 346	Comparative Physiology	
Choose a minimum of 8 credits	from the following courses:	
BIOLOGY 310/510	Plant Biodiversity <sup>#</sup>	
BIOLOGY 311/511	Plant Physiology <sup>#</sup>	
BIOLOGY 312/512	Mycology <sup>#</sup>	
BIOLOGY 320/520	Field Botany #	
BIOLOGY 322/522	Environmental Microbiology #	
BIOLOGY 342/542	Ornithology #	
BIOLOGY 343/543	Mammalogy <sup>#</sup>	

BIOLOGY 490	Biology Seminar
Seminar, 1 credit require	ed
ENV SCI 499	Travel Course
ENV SCI 467	Capstone in Environmental Science
ENV SCI 403/603	Limnology #
ENV SCI 401/601	Stream Ecology #
ENV SCI 337/537	Environmental GIS <sup>#</sup>
BIOLOGY 450/650	Ecological Restoration #
BIOLOGY 449	Wetland Ecology
BIOLOGY 401/601	Fish and Wildlife Population Dynamics #
BIOLOGY 365	Aquatic Invertebrates
BIOLOGY 357/557	Marine Biology <sup>#</sup>
BIOLOGY 355/555	Entomology #

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# Students must be granted permission through the department to enroll in graduate level coursework. For more information, contact the graduate Environmental Science & Policy office or refer to the graduate catalog (http://catalog.uwgb.edu/graduate/general-information/academic-rules-regulations/undergrad-in-accelerated/).

#### Microbiology

Supporting Courses	25-29
BIOLOGY 201Principles of Biology: Cellular and Molecular Processes& BIOLOGY 202and Principles of Biology Lab: Cellular and Molecular Processes	
BIOLOGY 203Principles of Biology: Organisms, Ecology, and Evolution& BIOLOGY 204and Principles of Biology Lab: Organisms, Ecology, and Evolution	
CHEM 211Principles of Chemistry I& CHEM 213and Principles of Chemistry I Laboratory	
CHEM 212Principles of Chemistry II& CHEM 214and Principles of Chemistry II Laboratory	
MATH 260 Introductory Statistics	
Mathematics (choose one course):	
MATH 104 Precalculus	
MATH 202 Calculus and Analytic Geometry I	
ENV SCI 336 Environmental Statistics	
ENV SCI 337 Environmental GIS	
Writing (choose one course): <sup>1</sup>	
INFO SCI 390 Technical Writing	
WF 105 Research and Rhetoric	
Upper Level Courses <sup>2</sup>	34-38
Required courses	
BIOLOGY 306 Principles of Ecology	
BIOLOGY 311 Plant Physiology	
or BIOLOGY 346 Comparative Physiology	
BIOLOGY 303 Genetics	
BIOLOGY 309 Evolutionary Biology	
BIOLOGY 323Principles of Microbiology& BIOLOGY 324and Principles of Microbiology Laboratory	
or BIOLOGY 322 Environmental Microbiology	
BIOLOGY 402 Advanced Microbiology	
Chemistry (minimum of 8 credits of the following courses):	
CHEM 302Organic Chemistry I& CHEM 304and Organic Chemistry Laboratory I	

Total Credits		59-67
BIOLOGY 490	Biology Seminar	
Seminar (1 credit requir	red):	
HUM BIOL 423	Immunology Lab	
HUM BIOL 422	Immunology	
BIOLOGY 497	Internship	
BIOLOGY 408	Molecular Biology Laboratory	
BIOLOGY 407	Molecular Biology	
BIOLOGY 312	Mycology	
BIOLOGY 308	Cell Biology Laboratory	
BIOLOGY 307	Cell Biology	
Electives (choose 8 or i	more credits from the following courses):	
CHEM 331	Biochemistry Laboratory	
CHEM 330	Biochemistry	
CHEM 303 & CHEM 305	Organic Chemistry II and Organic Chemistry Laboratory II	

1 Satisfied with an ACT English score of 32 or higher 2

Research experience and/or Internships are highly recommended. Credits from research and internships may be counted toward upper level electives.

Students planning to continue on to graduate school or a professional program are recommended to take calculus, physics and organic chemistry.

#### **Pre-Veterinary**

Code	Title	Credits
Supporting Courses		24-27
BIOLOGY 201 & BIOLOGY 202	Principles of Biology: Cellular and Molecular Processes and Principles of Biology Lab: Cellular and Molecular Processes	
BIOLOGY 203 & BIOLOGY 204	Principles of Biology: Organisms, Ecology, and Evolution and Principles of Biology Lab: Organisms, Ecology, and Evolution	
CHEM 211 & CHEM 213	Principles of Chemistry I and Principles of Chemistry I Laboratory	
CHEM 212 & CHEM 214	Principles of Chemistry II and Principles of Chemistry II Laboratory	
MATH 260	Introductory Statistics	
Mathemetics (choose one course	se):	
MATH 104	Precalculus	
MATH 202	Calculus and Analytic Geometry I	
ENV SCI 336	Environmental Statistics	
ENV SCI 337	Environmental GIS	
Writing (choose one course): <sup>1</sup>		
ENG COMP 105	English Composition II: Composition and Rhetoric	
Upper Level Courses		47
BIOLOGY 303	Genetics	
BIOLOGY 306	Principles of Ecology	
BIOLOGY 309	Evolutionary Biology	
BIOLOGY 346	Comparative Physiology	
CHEM 302 & CHEM 304	Organic Chemistry I and Organic Chemistry Laboratory I	
CHEM 303 & CHEM 305	Organic Chemistry II and Organic Chemistry Laboratory II	
CHEM 330	Biochemistry	
Cell Biology (choose one of the	e following options):	

71-74	Total Credits
nar	BIOLOGY 490
	Seminar, 1 credit required
Lab	HUM BIOL 423
	HUM BIOL 422
al Biology Laboratory	BIOLOGY 411
vior	BIOLOGY 345
	BIOLOGY 343
	BIOLOGY 342
Anatomy of Vertebrates	BIOLOGY 340
oratory	BIOLOGY 304
wing courses:	Choose a minimum of 8 credits
Physics I s of Physics II	PHYSICS 201 & PHYSICS 202
s of Physics I entals of Physics II	PHYSICS 103 & PHYSICS 104
):	Physics (choose one of the follo
Microbiology s of Microbiology Laboratory	BIOLOGY 323 & BIOLOGY 324
ogy Laboratory	BIOLOGY 307 & BIOLOGY 308
	BIOLOGY 307

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Satisfied with an ACT English score of 32 or higher