BIOLOGY MAJOR, B.S.

Students with the Biology Major will complete the Biology Core Requirements (http://catalog.uwplatt.edu/undergraduate/business-industry-life-science-agriculture/biology/#biology-core) (32-34 credits) and one of the following emphases related to the student's field of interest:

BOTANY EMPHASIS

Course	Title	Credits
Biology Core		**32**
Required Supporting Core Courses (11 credits) [1,2]		
The second science course cannot be an Astronomy course.		
Advanced Plant-Based Courses		**12**
Select at least 4 courses, 12 credit minimum:		
BIOLOGY 2130	Plants and Society	
BIOLOGY 2450	Fungi, Algae and Bryophytes	
BIOLOGY 3550	Morphology and Evolution of Vascular Plants	
BIOLOGY 3650	Plant Communities of Wisconsin	
BIOLOGY 4150	Forensic Botany	
BIOLOGY 4530	Plant Pathology	
SCSCI 3210	Principles of Plant Physiology and Biochemistry	
SCSCI 3220	Plant Development and Biotechnology	
SCSCI 4240	Plant Breeding	
SCSCI 4340	Plant Physiology	
Approved field station course(s)		
Additional Biology Course(s)		**3**
Select at least 1 biology course, 2000-level or above, 3 credit minimum [3]		
Additional Supporting Courses		**5**
Select at least 2 courses, 5 credit minimum [4]		
CHEMSTRY 3130 & CHEMSTRY 3110	Environmental Chemistry and Environmental Chemistry Lab	
CHEMSTRY 3540 & CHEMSTRY 3510	Organic Chemistry I and Organic Chemistry I Lab	
CHEMSTRY 4630 & CHEMSTRY 4610	General Biochemistry and General Biochemistry Lab	
ECORES 3020	Restoration Revegetation	
ECORES 3410	Wetland Ecology, Restoration and Management	
ENERGY 2130	Energy, Environment, and Society	
ENVHORT 2280	Woody Landscape Plants	
ENVHORT 3240	Herbaceous Plants	
GEOGRPHY 1040	Planet Earth	
GEOGRPHY 3120	Geography of the Driftless Area	
GEOGRPHY 3140	Global Landforms	

GEOGRPHY 3230	Geographic Information Systems
GEOGRPHY 3240	Weather and Climate
GEOGRPHY 3330	Environmental Conservation
GEOGRPHY 3340	Biogeography
GEOGRPHY 3570	Fire History and Ecology
GEOGRPHY 4150	Global Environmental Change
GEOLOGY 1140	Physical Geology
GEOLOGY 1240	Historical Geology
GEOLOGY 1440	Landscapes of North America
SCSCI 2230	Soils
SCSCI 3200	Integrated Pest Management
SCSCI 4250	Weed Science
SCSCI 4350	Soil and Water Conservation
Total Credits	**52**

1 This requirement is more restrictive than other emphases.
2 The second science course cannot be an Astronomy course.
3 No more than 6 credits total from BIOLOGY 2920, BIOLOGY 3920, BIOLOGY 4010, BIOLOGY 4660, or BIOLOGY 4920 may be counted toward the major.
4 Courses used to meet biology core requirement cannot also be used here, i.e., courses cannot double-count.

RECOMMENDED MINORS

Biotechnology
Chemistry
Environmental Science
Geology
Environmental Horticulture
Renewable Energy

COMPREHENSIVE EMPHASIS

This option is for students who seek a range of biology experiences in many areas.

Course	Title	Credits
General Requirements		
General Education (http://catalog.uwplatt.edu/undergraduate/degree-requirements/bachelor-of-science-degree-core-curriculum/)		39-56
Biology Core (http://catalog.uwplatt.edu/undergraduate/business-industry-life-science-agriculture/biology/#biology-core)		32
Students must complete at least ONE biology course from each of the 5 different topic groups below (minimum 13 credits total):		**13**
1) Cell/Micro/Molecular Biology		
BIOLOGY 2040	Cell Biology	
BIOLOGY 3120	Animal Tissue Culture	
BIOLOGY 3240	Microbiology	
BIOLOGY 3530	Biotechnology	
BIOLOGY 4040	Molecular Biology	
BIOLOGY 4340	Mammalian Histology	
BIOLOGY 4520	Biotechnology Seminar	
2) Human Biology [1]		
BIOLOGY 2140 & BIOLOGY 2240	Human Anatomy and Physiology I and Human Anatomy and Physiology II	
BIOLOGY 2340	Essentials of Anatomy and Physiology	
BIOLOGY 3620	Immunology	
BIOLOGY 4240	Advanced Physiology	
BIOLOGY 4440	Human Gross Anatomy	
3) Botany		
BIOLOGY 2130	Plants and Society	

BIOLOGY 2450	Fungi, Algae and Bryophytes	
BIOLOGY 3550	Morphology and Evolution of Vascular Plants	
BIOLOGY 3650	Plant Communities of Wisconsin	
BIOLOGY 4150	Forensic Botany	
4) Zoology		
BIOLOGY 2640	Invertebrate Zoology	
BIOLOGY 3030	Ornithology	
BIOLOGY 3040	Comparative Anatomy of the Vertebrates	
BIOLOGY 3230	Mammalogy	
5) Ecology & Evolution		
BIOLOGY 3460	Ecological Methods and Research	
BIOLOGY 3470	Systematics and Evolutionary Analysis	
BIOLOGY 3750	Freshwater Biology	
BIOLOGY 4710	Selected Regional Habitats	
Additional Biology Courses		
An additional minimum of 10 credits of biology courses above 2000 is required to complete the major. [2]		10
Total Credits		**94-111**

1 BIOLOGY 2140/BIOLOGY 2240 and BIOLOGY 2340 cannot both count toward an individual's major.

2 No more than 6 credits of any combination from BIOLOGY 2920, BIOLOGY 3710, BIOLOGY 3720, BIOLOGY 3920, BIOLOGY 4010, BIOLOGY 4660, and BIOLOGY 4920 may be counted toward the major.

CYTOTECHNOLOGY EMPHASIS

A minimum of 90 semester credits must be completed, including all general education competencies and liberal arts areas as well as all biology requirements listed below; in addition, if accepted into an approved cytotechnology program, students will earn their final 30 credits of advanced biology from that professional cytotechnology school. We have an established articulation agreement with UW-Madison. At the end of the fourth year of study, students will earn a bachelor's from UW-Platteville as well as a certificate in cytotechnology from the professional cytotechnology school. If a student is not accepted into an approved program, then he/she is encouraged to complete the final year at UW-Platteville to earn a bachelor's in biology; to graduate, the student must fulfill the minimum requirements for the university and the biology program.

CORE REQUIREMENTS

Students must complete at least 20 credits of undergraduate biology courses, including the required biology core courses, as well as the required cytotechnology core courses (17-18 credits). Students in this emphasis DO NOT have to take the one-credit capstone experience if a similar course is available in the Cytotechnology School curriculum.

Course	Title	Credits
Biology Core (31-32 credits) [1]		**31-32**
Required Supporting Core Courses (11 credits) [2]		
CHEMSTRY 1140	General Chemistry I	
CHEMSTRY 1240	General Chemistry II	
MATH 1830	Elementary Statistics	
Cytotechnology Emphasis Core		**17-18**
BIOLOGY 2040	Cell Biology	
BIOLOGY 2140	Human Anatomy and Physiology I	
or BIOLOGY 2340	Essentials of Anatomy and Physiology	
BIOLOGY 3240	Microbiology	
BIOLOGY 4340	Mammalian Histology	
Cytotechnology Certificate Coursework		**30**
30 upper division credits transferred back to complete the Biology major		
Total Credits		**78-80**

1 No more than 6 credits total from BIOLOGY 2920, BIOLOGY 3920, BIOLOGY 4010, BIOLOGY 4660, or BIOLOGY 4920 may be counted toward the major.

[2] This requirement is more restrictive than other emphases.

ECOLOGY EMPHASIS

Course	Title	Credits
Biology Core		**32-34**
Emphasis Requirements (Electives to complete the major)		**28**
Must complete 28 credits from courses listed.		
Advanced Ecology Electives		
Choose at least two Advanced Ecology-relevant courses.		
BIOLOGY 3460	Ecological Methods and Research	
BIOLOGY 3470	Systematics and Evolutionary Analysis	
BIOLOGY 3650	Plant Communities of Wisconsin	
BIOLOGY 3750	Freshwater Biology	
BIOLOGY 4710	Selected Regional Habitats	
ECORES 3410	Wetland Ecology, Restoration and Management	
Other Ecology Emphasis Electives [2,3]		
BIOLOGY 2450	Fungi, Algae and Bryophytes	
BIOLOGY 2640	Invertebrate Zoology	
BIOLOGY 2920	Independent Research	
BIOLOGY 3030	Ornithology [2]	
BIOLOGY 3040	Comparative Anatomy of the Vertebrates	
BIOLOGY 3130	Amphibians and Reptiles of Wisconsin	
BIOLOGY 3230	Mammalogy	
BIOLOGY 3240	Microbiology	
BIOLOGY 3550	Morphology and Evolution of Vascular Plants	
BIOLOGY 3920	Personalized Learning Experience	
BIOLOGY 4010	Workshop in Biology [2]	
BIOLOGY 4150	Forensic Botany	
BIOLOGY 4410	Topics in Biology	
BIOLOGY 4660	Biology Internship Experience [1]	
BIOLOGY 4920	Advanced Independent Research in Biology [2]	
GEOGRPHY 3230	Geographic Information Systems	
GEOGRPHY 3520	Remote Sensing of the Environment [3]	
GEOGRPHY 4330	Advanced Geographic Information Systems	
Other suggested courses for students pursuing Ecology-Related Careers or Post-Graduate Opportunities		
These courses do not count toward Biology Major requirements.		
CHEMSTRY 1240	General Chemistry II	
CHEMSTRY 1450	Chemistry for Engineers	
CHEMSTRY 3110	Environmental Chemistry Lab	
CHEMSTRY 3130	Environmental Chemistry	
CHEMSTRY 3510	Organic Chemistry I Lab	
CHEMSTRY 3540	Organic Chemistry I	
ECORES 3020	Restoration Revegetation	
GEOLOGY 1140	Physical Geology	
GEOLOGY 3430	Hydrogeology	
GEOGRPHY 3140	Global Landforms	
GEOGRPHY 3240	Weather and Climate	
GEOGRPHY 3330	Environmental Conservation	
GEOGRPHY 3340	Biogeography	
GEOGRPHY 3570	Fire History and Ecology	
GEOGRPHY 3720	Advanced Remote Sensing	

GEOGRPHY 4150	Global Environmental Change
PHYSICS 1050	Principles of Physics
PHYSICS 1350	Introductory Physics I
PHYSICS 1450	Introductory Physics II
Total Credits	**60-62**

1 Electives must include at least 2 advanced ecology-relevant courses.
2 No more than 6 credits of any combination of BIOLOGY 2920, BIOLOGY 3920, BIOLOGY 4010, BIOLOGY 4660, BIOLOGY 4920 may apply toward the major.
3 No more than 6 credits of any combination of GEOGRPHY 3230, GEOGRPHY 3520, and GEOGRPHY 4330 may apply to the major.

NOTE: Any of the courses above may also be taken at an accredited field station with departmental approval.

RECOMMENDED MINORS

Biotechnology
Chemistry
Environmental Science
Geology

GENERAL EMPHASIS

This option is for students who seek a major with a flexible set of various biology electives.

Course	Title	Credits
General Requirements		
General Education (http://catalog.uwplatt.edu/undergraduate/degree-requirements/bachelor-of-science-degree-core-curriculum/)		39-56
Biology Core (http://catalog.uwplatt.edu/undergraduate/business-industry-life-science-agriculture/biology/#biology-core)		32
Additional Biology Courses		**24**
Minimum of 24 credits of biology courses above 2000. [1]		
Total Credits		**95-112**

1 No more than 6 credits of any combination from BIOLOGY 2920, BIOLOGY 3710, BIOLOGY 3720, BIOLOGY 3920, BIOLOGY 4010, BIOLOGY 4660, and BIOLOGY 4920 may be counted toward the major.

HEALTH SCIENCES EMPHASIS

This emphasis is intended for students pursuing graduate school (human anatomy or human physiology) or professional school in healthcare (chiropractic, dentistry, medicine, nursing, occupational therapy, optometry, osteopathy, physical therapy, physician assistant, podiatry, etc.).

Course	Title	Credits
Biology Core (http://catalog.uwplatt.edu/undergraduate/business-industry-life-science-agriculture/biology/#biology-core) [1]		**32**
Required Supporting Core Courses (11 credits) [2]		
CHEMSTRY 1140	General Chemistry I	
CHEMSTRY 1240	General Chemistry II	
MATH 1830	Elementary Statistics	
Health Sciences Emphasis Core Courses (19 credits)		**19**
BIOLOGY 2040	Cell Biology	
BIOLOGY 2140	Human Anatomy and Physiology I	
BIOLOGY 2240	Human Anatomy and Physiology II	
BIOLOGY 3240	Microbiology	
Health Sciences Additional Required Supporting Courses		**8-11**
Choose all of the courses in one of the options:		
Option A		
CHEMSTRY 3510	Organic Chemistry I Lab	
CHEMSTRY 3540	Organic Chemistry I	

CHEMSTRY 4610	General Biochemistry Lab	
CHEMSTRY 4630	General Biochemistry	
Option B		
PHYSICS 1350	Introductory Physics I	
PHYSICS 1450	Introductory Physics II	
Option C		
PHYSICS 2240	General Physics I	
PHYSICS 2340	General Physics II	
Option D		
PSYCHLGY 1130	General Psychology	
PSYCHLGY 2930	Human Behavior in the Social Environment	
or PSYCHLGY 2730	Life Span Developmental Psychology	
SOCIOLGY 1030	Introduction to Sociology	
Option E		
HHP 3020	Physiology of Exercise	
HHP 3720	Biomechanical Kinesiology	
HHP 3950	Human Nutrition	
Electives to Complete the Emphasis		**3-6**
Students may select any biology course above the 2000 level (except BIOLOGY 2340 or BIOLOGY 4010). The goal is to reach at least 65 credits.		
Relevant suggested classes:		
BIOLOGY 3040	Comparative Anatomy of the Vertebrates	
BIOLOGY 3470	Systematics and Evolutionary Analysis	
BIOLOGY 3530	Biotechnology	
BIOLOGY 3620	Immunology	
BIOLOGY 3630	Epidemiology: Host, Agent, and Environment	
BIOLOGY 4040	Molecular Biology	
BIOLOGY 4240	Advanced Physiology	
BIOLOGY 4340	Mammalian Histology	
BIOLOGY 4440	Human Gross Anatomy	
BIOLOGY 4540	Introductory Human Pathology	
Total Credits		**65**

1 No more than 6 credits of any combination of BIOLOGY 2920, BIOLOGY 3920, BIOLOGY 4010, BIOLOGY 4660, BIOLOGY 4920 may apply toward the major.

2 This is part of Biology Core but it is more restrictive than other emphases.

RECOMMENDED MINORS

Applied Statistics
Biotechnology
Chemistry
Ethnic Studies
World Languages (French, German, Spanish)
Mathematics
Psychology

Students planning to pursue graduate or professional school may need to complete additional coursework beyond the requirements of the major to make their application competitive. It is well worth the time and effort to investigate the prerequisites at 2 or 3 schools you are considering. Additionally, be aware that graduate and professional schools often have G.P.A. requirements and expectations that you gain educational experiences beyond the classroom. Your advisor will be able to help you as you plan your future.

MOLECULAR/GENETICS EMPHASIS

Course	Title	Credits
Biology Core [1]		**32**
Required Supporting Core Coures		
This is more restrictive than other emphases.		
CHEMSTRY 1140	General Chemistry I	
CHEMSTRY 1240	General Chemistry II	
MATH 1830	Elementary Statistics	
Emphasis requirements		
Molecular/Genetics Core Courses		**14**
BIOLOGY 2040	Cell Biology	
BIOLOGY 3240	Microbiology	
BIOLOGY 4040	Molecular Biology	
Advanced Molecular/Genetics Electives		**8**
Select 8 credits of the following:		
BIOLOGY 2140	Human Anatomy and Physiology I	
BIOLOGY 2240	Human Anatomy and Physiology II	
BIOLOGY 2340	Essentials of Anatomy and Physiology	
BIOLOGY 3040	Comparative Anatomy of the Vertebrates	
BIOLOGY 3120	Animal Tissue Culture	
BIOLOGY 3470	Systematics and Evolutionary Analysis	
BIOLOGY 3530	Biotechnology	
BIOLOGY 3620	Immunology	
BIOLOGY 4130	Mammalian Endocrinology	
BIOLOGY 4150	Forensic Botany	
BIOLOGY 4240	Advanced Physiology	
BIOLOGY 4340	Mammalian Histology	
BIOLOGY 4520	Biotechnology Seminar	
BIOLOGY 4530	Plant Pathology	
ANSCI 3030	Genetics of Livestock Improvement	
ANSCI 3070	Biotechnology in Animal Science	
ANSCI 3100	Anatomy and Physiology of Domestic Animals	
CHEMSTRY 4830	Biochemistry Topics	
CHEMSTRY 4910	Advanced Biochemistry Laboratory	
SCSCI 3210	Principles of Plant Physiology and Biochemistry	
SCSCI 3220	Plant Development and Biotechnology	
SCSCI 4240	Plant Breeding	
SCSCI 4340	Plant Physiology	
Additional Required Supporting Courses		**9**
CHEMSTRY 3540 & CHEMSTRY 3510	Organic Chemistry I and Organic Chemistry I Lab	
CHEMSTRY 4630 & CHEMSTRY 4610	General Biochemistry and General Biochemistry Lab	
Electives		**3**
Electives to complete the emphasis. [2]		
Total Credits		**66**

1 No more than 6 credits of any combination of BIOLOGY 2920, BIOLOGY 3920, BIOLOGY 4010, BIOLOGY 4660, BIOLOGY 4920 may apply toward the major.

2 Students may select any biology course above the 2000 level (except BIOLOGY 4010).

RECOMMENDED MINORS

Biotechnology
Chemistry
Criminal Justice
Forensic Investigation

NURSING EMPHASIS

This emphasis will allow a student to complete a Bachelor of Science in Biology from UW-Platteville and a Bachelor of Science of Nursing from UW-Oshkosh in four years. It will require participation in the 3 + 1 Dual Degree Program (Articulation agreement with UW-Oshkosh and their Online Accelerated Nursing Program).

Course	Title	Credits
General Requirements		
General Education (http://catalog.uwplatt.edu/undergraduate/degree-requirements/bachelor-of-science-degree-core-curriculum/)		39-56
Biology Core (http://catalog.uwplatt.edu/undergraduate/business-industry-life-science-agriculture/biology/#biology-core)		32
Biology Core-Required Supporting Core Courses [1]		
CHEMSTRY 1140	General Chemistry I	
CHEMSTRY 1240	General Chemistry II	
MATH 1830	Elementary Statistics	
Health Sciences Supporting Coursework		**31**
BIOLOGY 2040	Cell Biology	
BIOLOGY 2140	Human Anatomy and Physiology I	
BIOLOGY 2240	Human Anatomy and Physiology II	
BIOLOGY 3240	Microbiology	
PSYCHLGY 1130	General Psychology	
PSYCHLGY 2730	Life Span Developmental Psychology	
SOCIOLGY 1030	Introduction to Sociology	
SPEECH 1060	Speech Communication for Professionals	
Nursing Coursework		**30**
Nursing coursework is completed with UW-Oshkosh, students should check current UW-Oshkosh nursing admission criteria at: https://uwosh.edu/con/undergraduate/accelerated-bsn/admissions (https://uwosh.edu/con/undergraduate/accelerated-bsn/admissions/)/		
Total Credits		**132-149**

[1] This requirement is more restrictive than other emphases.

SECONDARY EDUCATION EMPHASIS (NON-LICENSURE)*

Note: Biology-secondary education majors must earn a minimum G.P.A. of 2.75 in the major coursework.

Course	Title	Credits
Biology Core (32 credits) [1]		**32**
Required Supporting Core Courses (11 credits) [2]		
CHEMSTRY 1140	General Chemistry I	
CHEMSTRY 1240	General Chemistry II	
MATH 1830	Elementary Statistics	
Secondary Education Emphasis		
Required Biology Courses		**9**
BIOLOGY 2040	Cell Biology	
BIOLOGY 3240	Microbiology	
Required Anatomy & Physiology Courses (Select one of the following options)		**4-10**
BIOLOGY 2140 & BIOLOGY 2240	Human Anatomy and Physiology I and Human Anatomy and Physiology II	
BIOLOGY 2340	Essentials of Anatomy and Physiology	
Advanced Plant Course		**3**

Select a minimum of 3 credits of the following:		
BIOLOGY 2130	Plants and Society	
BIOLOGY 2450	Fungi, Algae and Bryophytes	
BIOLOGY 3550	Morphology and Evolution of Vascular Plants	
BIOLOGY 3650	Plant Communities of Wisconsin	
BIOLOGY 4150	Forensic Botany	
BIOLOGY/SCSCI 4530	Plant Pathology	
SCSCI 3210	Principles of Plant Physiology and Biochemistry	
An approved course at a field station		
Advanced Animal Course		**3**
Select a minimum of 3 credits of the following:		
BIOLOGY 2640	Invertebrate Zoology	
BIOLOGY 3030	Ornithology	
BIOLOGY 3040	Comparative Anatomy of the Vertebrates	
BIOLOGY 3130	Amphibians and Reptiles of Wisconsin	
BIOLOGY 3230	Mammalogy	
BIOLOGY 4240	Advanced Physiology	
BIOLOGY 4340	Mammalian Histology	
An approved course at a field station		
Advanced Broad-Based Biology Course		**2**
Select a minimum of 2 credits of the following:		
BIOLOGY 2920	Independent Research (approval required)	
BIOLOGY 3460	Ecological Methods and Research	
BIOLOGY 3470	Systematics and Evolutionary Analysis	
BIOLOGY 3530	Biotechnology	
BIOLOGY 3750	Freshwater Biology	
BIOLOGY 3920	Personalized Learning Experience (approval required)	
BIOLOGY 4040	Molecular Biology	
BIOLOGY 4410	Topics in Biology (approval required)	
BIOLOGY 4710	Selected Regional Habitats	
BIOLOGY 4920	Advanced Independent Research in Biology (approval required)	
Total Credits		**53-59**

[1] No more than 6 credits of any combination of BIOLOGY 2920, BIOLOGY 3920, BIOLOGY 4010, BIOLOGY 4660, BIOLOGY 4920 may apply toward the major.

[2] This requirement is more restrictive than other emphases.

*In order to be licensed to teach science, students must complete the Broad Field Science Major (http://catalog.uwplatt.edu/undergraduate/liberal-arts-education/environmental-sciences-and-society/broad-field-science-comprehensive-bs/). This major requires students to acquire depth in a science discipline via completion of a 2nd major or minor, such as the Biology Major-Secondary Education Emphasis or the Biology Teaching Minor (http://catalog.uwplatt.edu/undergraduate/business-industry-life-science-agriculture/biology/teaching-minor/). This will improve marketability. Finally, students will also need to complete Middle-Secondary Education emphasis (http://catalog.uwplatt.edu/undergraduate/liberal-arts-education/education/teacher-education/middle-and-secondary-education/) through School of Education to acquire necessary professional education training.

For licensure in WI: Students must earn a minimum GPA of 2.75 in the major in order to student teach and be licensed. If you earn a minimum GPA of 3.0 in your major then you will not have to take the Praxis II content exam.

The UW-Platteville School of Education program is designed to meet all of the educational requirements for the initial licensing in the State of Wisconsin. The program may not meet requirements of other states and we are unable to make a determination about whether the program meets requirements of other states. If you are interested in certification outside of the state of Wisconsin, we encourage you to contact the appropriate state licensing agency to seek guidance and verify requirements before beginning a program, as well as during your program of study. See Professional Licensure Directory by State (https://publish.smartsheet.com/6e3fb27658f443588ff16ad36ccf5a94/).

ZOOLOGY EMPHASIS

Course	Title	Credits
Biology core [1]		**32-34**
Emphasis Requirements		
Anatomy and Physiology Courses (choose one pairing)		**9-10**
Recommended Options		
BIOLOGY 2140 & BIOLOGY 2240	Human Anatomy and Physiology I and Human Anatomy and Physiology II	
BIOLOGY 2340 & BIOLOGY 3040	Essentials of Anatomy and Physiology and Comparative Anatomy of the Vertebrates	
ANSCI 3100 & BIOLOGY 3040	Anatomy and Physiology of Domestic Animals and Comparative Anatomy of the Vertebrates	
Alternative Options		
BIOLOGY 2140 & BIOLOGY 3040	Human Anatomy and Physiology I and Comparative Anatomy of the Vertebrates	
BIOLOGY 2140 & ANSCI 3100	Human Anatomy and Physiology I and Anatomy and Physiology of Domestic Animals	
Zoology Electives		**10**
Select a minimum of 10 credits of the following:		
BIOLOGY 2640	Invertebrate Zoology	
BIOLOGY 2730	Animal Behavior	
BIOLOGY 3030	Ornithology	
BIOLOGY 3120	Animal Tissue Culture	
BIOLOGY 3130	Amphibians and Reptiles of Wisconsin	
BIOLOGY 3230	Mammalogy	
BIOLOGY 3620	Immunology	
BIOLOGY 4130	Mammalian Endocrinology	
BIOLOGY 4240	Advanced Physiology	
BIOLOGY 4340	Mammalian Histology	
Additional Biology Courses [1]		**11**
Select a minimum of 11 credits of the following:		
BIOLOGY 2040	Cell Biology	
BIOLOGY 2450	Fungi, Algae and Bryophytes	
BIOLOGY 2920	Independent Research	
BIOLOGY 2980	Special Topics in Biology	
BIOLOGY 3240	Microbiology	
BIOLOGY 3460	Ecological Methods and Research	
BIOLOGY 3470	Systematics and Evolutionary Analysis	
BIOLOGY 3530	Biotechnology	
BIOLOGY 3550	Morphology and Evolution of Vascular Plants	
BIOLOGY 3650	Plant Communities of Wisconsin	
BIOLOGY 3710	Exotic Animal Care and Outreach I	
BIOLOGY 3720	Exotic Animal Care and Outreach II	
BIOLOGY 3750	Freshwater Biology	
BIOLOGY 3920	Personalized Learning Experience	
BIOLOGY 4010	Workshop in Biology	
BIOLOGY 4040	Molecular Biology	
BIOLOGY 4150	Forensic Botany	
BIOLOGY 4410	Topics in Biology [2]	
BIOLOGY 4520	Biotechnology Seminar	
BIOLOGY 4530	Plant Pathology	
BIOLOGY 4540	Introductory Human Pathology	

BIOLOGY 4660	Biology Internship Experience [2]	
BIOLOGY 4710	Selected Regional Habitats [2]	
BIOLOGY 4920	Advanced Independent Research in Biology [2]	
Additional Required Courses (8 credits) [2]		**8**
ANSCI 1000	Introduction to Animal Science	
ANSCI 2120	Topics in Animal Health & Welfare	
ANSCI 2500	Feeds and Feeding	
ANSCI 3000	Animal Nutrition	
ANSCI 3110	Reproductive Physiology of Domestic Animals	
ANSCI 4080	Ruminant Nutrition	
ANSCI 4120	The Animal Rights and Animal Welfare Social Movements	
ANSCI 4170	Small Ruminant and Equine Management	
ANSCI 4260	Companion Animal Care and Management	
ECORES 1010	Introduction to Ecological Restoration and Resource Management	
ECORES 3010	Current Topics in Ecological Restoration and Resource Management	
ECORES 3020	Restoration Revegetation	
ECORES 3410	Wetland Ecology, Restoration and Management	
ECORES 3880	Environmental Law	
ECORES 3900	Ecological Restoration and Resource Management Field Trip	
GEOGRPHY 1040	Planet Earth	
GEOGRPHY 3120	Geography of the Driftless Area	
GEOGRPHY 3140	Global Landforms	
GEOGRPHY 3230	Geographic Information Systems	
GEOGRPHY 3330	Environmental Conservation	
GEOGRPHY 3340	Biogeography	
GEOGRPHY 3520	Remote Sensing of the Environment	
GEOGRPHY 3570	Fire History and Ecology	
GEOGRPHY 3720	Advanced Remote Sensing	
GEOGRPHY 3750	Field Geography of the Western United States	
GEOGRPHY 3850	Geography of the National Parks	
GEOGRPHY 4040	Python for GIS	
GEOGRPHY 4150	Global Environmental Change	
GEOGRPHY 4330	Advanced Geographic Information Systems	
Total Credits		**70-73**

1 No more than 6 credits of any combination of BIOLOGY 2920, BIOLOGY 3920, BIOLOGY 4010, BIOLOGY 4660, BIOLOGY 4920 may apply toward the major.

2 Courses used to meet Biology Core Requirements cannot also be used in the Additional Required Courses area, i.e., courses cannot double count.

RECOMMENDED MINORS

Biotechnology
Chemistry
Environmental Science