

# BIOLOGY, B.S. (CALS)

## REQUIREMENTS

### UNIVERSITY GENERAL EDUCATION REQUIREMENTS

All undergraduate students at the University of Wisconsin–Madison are required to fulfill a minimum set of common university general education requirements to ensure that every graduate acquires the essential core of an undergraduate education. This core establishes a foundation for living a productive life, being a citizen of the world, appreciating aesthetic values, and engaging in lifelong learning in a continually changing world. Various schools and colleges will have requirements in addition to the requirements listed below. Consult your advisor for assistance, as needed. For additional information, see the university Undergraduate General Education Requirements (<http://guide.wisc.edu/undergraduate/#requirementsforundergraduatestudytext>) section of the *Guide*.

General Education	• Breadth–Humanities/Literature/Arts: 6 credits
	• Breadth–Natural Science: 4 to 6 credits, consisting of one 4- or 5-credit course with a laboratory component; or two courses providing a total of 6 credits
	• Breadth–Social Studies: 3 credits
	• Communication Part A & Part B *
	• Ethnic Studies *
	• Quantitative Reasoning Part A & Part B *

\* The mortarboard symbol appears before the title of any course that fulfills one of the Communication Part A or Part B, Ethnic Studies, or Quantitative Reasoning Part A or Part B requirements.

### COLLEGE OF AGRICULTURAL AND LIFE SCIENCES REQUIREMENTS

In addition to the University General Education Requirements, all undergraduate students in CALS must satisfy a set of college and major requirements. Courses may not double count within university requirements (General Education and Breadth) or within college requirements (First-Year Seminar, International Studies, Science, and Capstone), but courses counted toward university requirements may also be used to satisfy a college and/or a major requirement; similarly, courses counted toward college requirements may also be used to satisfy a university and/or a major requirement.

### COLLEGE REQUIREMENTS FOR ALL CALS B.S. DEGREE PROGRAMS

Code	Title	Credits
Quality of Work: Students must maintain a minimum cumulative grade point average of 2.000 to remain in good standing and be eligible for graduation.		
Residency: Students must complete 30 degree credits in residence at UW–Madison after earning 86 credits toward their undergraduate degree.		

First Year Seminar ( <a href="http://guide.wisc.edu/undergraduate/agricultural-life-sciences/#CALSThirdYearSeminarCourses">http://guide.wisc.edu/undergraduate/agricultural-life-sciences/#CALSThirdYearSeminarCourses</a> )	1
--	---

International Studies ( <a href="http://guide.wisc.edu/undergraduate/agricultural-life-sciences/#CALSThirdYearSeminarCourses">http://guide.wisc.edu/undergraduate/agricultural-life-sciences/#CALSThirdYearSeminarCourses</a> )	3
---	---

Physical Science Fundamentals	4-5
-------------------------------	-----

CHEM 103	General Chemistry I
or CHEM 108	Chemistry in Our World
or CHEM 109	Advanced General Chemistry

Biological Science	5
--------------------	---

Additional Science (Biological, Physical, or Natural)	3
---	---

Science Breadth (Biological, Physical, Natural, or Social)	3
--	---

CALS Capstone Learning Experience: included in the requirements for each CALS major (see "Major Requirements") ( <a href="http://guide.wisc.edu/undergraduate/agricultural-life-sciences/#CALSCapstoneRequirement">http://guide.wisc.edu/undergraduate/agricultural-life-sciences/#CALSCapstoneRequirement</a> )	
--	--

### REQUIREMENTS FOR THE MAJOR

A minimum of 15 credits must be completed in the major that are not used elsewhere. Students must complete a minimum of 31 credits of Biological Science courses within the Introductory Biology, Foundation Course, Upper-Level Breadth in the Major, and Capstone requirements. Unless specifically stated otherwise, courses may not be used to meet multiple requirements of the major.

In addition to the standard Biology major, there are two Named Options: Biology with a Named Option in Evolutionary Biology and Biology with a Named Option in Plant Biology. Admissions to the Named Option in Plant Biology is suspended as of Fall 2021.

Students may complete only one Biology major/named option and must declare the option they are pursuing.

### CORE REQUIREMENTS

#### Mathematics and Statistics

Code	Title	Credits
Complete one of the following:		5-10

MATH 221	Calculus and Analytic Geometry 1
MATH 171 & MATH 217	Calculus with Algebra and Trigonometry I and Calculus with Algebra and Trigonometry II

Complete one of the following:		3-4
--------------------------------	--	-----

MATH 222	Calculus and Analytic Geometry 2
STAT 240	Data Science Modeling I
STAT 301	Introduction to Statistical Methods
STAT 371	Introductory Applied Statistics for the Life Sciences

<b>Total Credits</b>	<b>8-14</b>
----------------------	-------------

#### Chemistry

Code	Title	Credits
General Chemistry (Complete one of the following):		5-10

CHEM 103 & CHEM 104	General Chemistry I and General Chemistry II
CHEM 109	Advanced General Chemistry

CHEM 115 & CHEM 116	Chemical Principles I and Chemical Principles II	
Organic Chemistry		
CHEM 343	Organic Chemistry I	3
CHEM 344	Introductory Organic Chemistry Laboratory	2
CHEM 345	Organic Chemistry II	3
<b>Total Credits</b>		<b>13-18</b>

### Physics

Code	Title	Credits
First Semester Physics (complete one of the following):		
PHYSICS 103	General Physics	
PHYSICS 201	General Physics	
PHYSICS 207	General Physics	
Second Semester Physics (complete one of the following):		4-5
PHYSICS 104	General Physics	
PHYSICS 202	General Physics	
PHYSICS 208	General Physics	
<b>Total Credits</b>		<b>8-10</b>

### Introductory Biology

Code	Title	Credits
Select one of the following options:		
Option A:		
BIOLOGY/ BOTANY/ ZOOLOGY 151	Introductory Biology	
BIOLOGY/ BOTANY/ ZOOLOGY 152	Introductory Biology	
Option B:		
BIOCORE 381	Evolution, Ecology, and Genetics	
BIOCORE 382	Evolution, Ecology, and Genetics Laboratory	
BIOCORE 383	Cellular Biology	
BIOCORE 384	Cellular Biology Laboratory	
BIOCORE 485	Principles of Physiology	
Option C:		
ZOOLOGY/ BIOLOGY 101	Animal Biology	
ZOOLOGY/ BIOLOGY 102	Animal Biology Laboratory	
BOTANY/ BIOLOGY 130	General Botany	
<b>Total Credits</b>		<b>10-13</b>

### Foundation Course (complete one of the following):

Students may use BIOCORE 381 and BIOCORE 383 toward **both** Introductory Biology **and** Foundation.

Code	Title	Credits
AGRONOMY/ HORT 338	Plant Breeding and Biotechnology	3
BIOCHEM 501	Introduction to Biochemistry	3
BIOCHEM 508	General Biochemistry II	3-4

BIOCORE 381 & BIOCORE 383	Evolution, Ecology, and Genetics and Cellular Biology	6
GENETICS 466	Principles of Genetics	3
GENETICS 468	General Genetics 2	3
MICROBIO 470	Microbial Genetics & Molecular Machines	3

## UPPER-LEVEL BREADTH IN THE MAJOR

Minimum of 13 credits required and must include **one approved lab course**. Approved lab courses are indicated by footnote. A course taken to meet the Foundation requirement may not also count as an Upper-Level Breadth course.

- Complete at least two credits from either category A or B.
- Complete at least two credits from either category C or D.
- Complete at least two credits from an unused category (A, B, C, D, or E).

### A. Cellular and Subcellular Biology

Code	Title	Credits
AGRONOMY/ HORT 338	Plant Breeding and Biotechnology	3
AGRONOMY/ BOTANY/HORT 339	Plant Biotechnology: Principles and Techniques I <sup>1</sup>	4
AGRONOMY/ BOTANY/HORT 340	Plant Cell Culture and Genetic Engineering	3
AN SCI 336	Animal Growth and Development	3
AN SCI/DY SCI 362	Veterinary Genetics	2
AN SCI 366	Concepts in Genomics	3
BIOCHEM 501	Introduction to Biochemistry	3
BIOCHEM 507	General Biochemistry I	3
BIOCHEM 508	General Biochemistry II	3-4
BIOCHEM/ NUTR SCI 510	Nutritional Biochemistry and Metabolism	3
BIOCHEM 550	Principles of Human Disease and Biotechnology	2
BIOCHEM 570	Computational Modeling of Biological Systems	3
BIOCHEM/ M M & I 575	Biology of Viruses	2
BIOCHEM 601	Protein and Enzyme Structure and Function	2
BIOCHEM/ GENETICS/ MICROBIO 612	Prokaryotic Molecular Biology	3
BIOCHEM/ GENETICS/ MD GENET 620	Eukaryotic Molecular Biology	3
BIOCHEM/ BOTANY 621	Plant Biochemistry	3
BIOCHEM 625	Mechanisms of Action of Vitamins and Minerals	2
BMOLCHEM/ MICROBIO 668	Microbiology at Atomic Resolution	3
BOTANY/ENTOM/ PL PATH 505	Plant-Microbe Interactions: Molecular and Ecological Aspects	3

CRB 640	Fundamentals of Stem Cell and Regenerative Biology	3	AN SCI/F&W ECOL/ ZOOLOGY 521	Birds of Southern Wisconsin <sup>1</sup>	3
CRB 650	Molecular and Cellular Organogenesis	3	ANAT&PHY 335	Physiology <sup>1</sup>	5
CRB/B M E 670	Biology of Heart Disease and Regeneration	3	ANAT&PHY 337	Human Anatomy	3
DERM 601	Skin Biology and Skin Diseases	3	ANAT&PHY 338	Human Anatomy Laboratory <sup>1</sup>	2
GENETICS 466	Principles of Genetics	3	ANAT&PHY 435	Fundamentals of Human Physiology <sup>1</sup>	5
GENETICS 467	General Genetics I	3	ANTHRO/ NTP/PSYCH/ ZOOLOGY 619	Biology of Mind	3
GENETICS 520	Neurogenetics	3	BIOCORE 486	Principles of Physiology Laboratory <sup>1</sup>	2
GENETICS 527	Developmental Genetics for Conservation and Regeneration	3	BOTANY 300	Plant Anatomy <sup>1</sup>	4
GENETICS 588	Immunogenetics	3	BOTANY 330	Algae <sup>1</sup>	3
MICROBIO 470	Microbial Genetics & Molecular Machines	3	BOTANY/ PL PATH 332	Fungi <sup>1</sup>	4
MICROBIO/ SOIL SCI 523	Soil Microbiology and Biochemistry	3	BOTANY/ PL PATH 333	Biology of the Fungi	2
MICROBIO 607	Advanced Microbial Genetics	3	BOTANY/ F&W ECOL 402	Dendrology: Woody Plant Identification and Ecology <sup>1</sup>	3
M M & I 341	Immunology	3	BOTANY 500	Plant Physiology <sup>1</sup>	3-4
M M & I/PATH-BIO 528	Immunology	3	CS&D 503	Neural Mechanisms of Speech, Hearing and Language	3
NEURODPT/ ZOOLOGY 616	Lab Course in Neurobiology and Behavior <sup>1</sup>	4	DY SCI 378	Lactation Physiology <sup>1</sup>	3
NTP/ NEURODPT 610	Cellular and Molecular Neuroscience	4	ENTOM/ ZOOLOGY 302	Introduction to Entomology <sup>1</sup>	4
NTP/ NEURODPT 629	Molecular and Cellular Mechanisms of Memory	3	ENTOM 321	Physiology of Insects	3
NTP 675	Special Topics (Stem Cell in Neurobiology)	1-3	ENTOM 331	Taxonomy of Mature Insects <sup>1</sup>	4
NTP 675	Special Topics (Reproductive Neuroendocrinology)	1-3	F&W ECOL 401	Physiological Animal Ecology	3
NTP 675	Special Topics (Molecular Mechanisms of Brain Damage)	1-3	GENETICS 545	Genetics Laboratory <sup>1</sup>	2
ONCOLOGY/ PL PATH 640	General Virology-Multiplication of Viruses	3	GENETICS/ MD GENET 565	Human Genetics	3
PHM SCI 558	Laboratory Techniques in Pharmacology and Toxicology <sup>1</sup>	2	GEOSCI/ ZOOLOGY 542	Invertebrate Paleontology	3
ZOOLOGY 470	Introduction to Animal Development	3	KINES 314	Physiology of Exercise <sup>1</sup>	4
ZOOLOGY/ PSYCH 523	Neurobiology	3	MICROBIO 303	Biology of Microorganisms	3
ZOOLOGY 555	Laboratory in Developmental Biology <sup>1</sup>	3	MICROBIO 304	Biology of Microorganisms Laboratory <sup>1</sup>	2
ZOOLOGY 570	Cell Biology	3	MICROBIO 330	Host-Parasite Interactions	3
ZOOLOGY 604	Computer-based Gene and Disease/Disorder Research Lab <sup>1</sup>	2	MICROBIO 526	Physiology of Microorganisms	3
ZOOLOGY 625	Development of the Nervous System	2	M M & I 301	Pathogenic Bacteriology	2
ZOOLOGY 655	Modeling Neurodevelopmental Disease	3	M M & I/ENTOM/ PATH-BIO/ ZOOLOGY 350	Parasitology	3
			NTP/NEURODPT/ PSYCH 611	Systems Neuroscience	4
			NTP/ZOOLOGY 620	Neuroethology Seminar	2
			NTP 675	Special Topics (Functional Brain Imaging of Cognitive Disorders)	1-3
			NUTR SCI 431	Nutrition in the Life Span	3
			NUTR SCI 631	Clinical Nutrition I	3
			ONCOLOGY 401	Introduction to Experimental Oncology	2
			PATH 404	Pathophysiologic Principles of Human Diseases	3
			PL PATH 558	Biology of Plant Pathogens <sup>1</sup>	3

## B. Organismal Biology

Code	Title	Credits
AN SCI/DY SCI 373	Animal Physiology	3
AN SCI/DY SCI 434	Reproductive Physiology <sup>1</sup>	3
AN SCI/F&W ECOL/ ZOOLOGY 520	Ornithology	3

PSYCH 406	Psychology of Perception	3-4
PSYCH 414	Cognitive Psychology	3
PSYCH 454	Behavioral Neuroscience	3
PSYCH 513	Hormones, Brain, and Behavior	4
PSYCH 606	Hormones and Behavior	3
ZOOLOGY 303	Aquatic Invertebrate Biology	3
ZOOLOGY 430	Comparative Anatomy of Vertebrates <sup>1</sup>	5
ZOOLOGY 603	Endocrinology	3-4
ZOOLOGY 611	Comparative and Evolutionary Physiology	3
ZOOLOGY 612	Comparative Physiology Laboratory <sup>1</sup>	2

### C. Ecology

Code	Title	Credits
AGRONOMY/ BOTANY/ SOIL SCI 370	Grassland Ecology	3
AGRONOMY/ ENTOM/F&W ECOL/ M&ENVTOX 632	Ecotoxicology: The Chemical Players	1
AGRONOMY/ ENTOM/F&W ECOL/ M&ENVTOX 633	Ecotoxicology: Impacts on Individuals	1
AGRONOMY/ ENTOM/F&W ECOL/ M&ENVTOX 634	Ecotoxicology: Impacts on Populations, Communities and Ecosystems	1
BOTANY/ ZOOLOGY 450	Midwestern Ecological Issues: A Case Study Approach	2
BOTANY/ F&W ECOL 455	The Vegetation of Wisconsin <sup>1</sup>	4
BOTANY/ F&W ECOL/ ZOOLOGY 460	General Ecology <sup>1</sup>	4
BOTANY/ENTOM/ ZOOLOGY 473	Plant-Insect Interactions	3
BOTANY/ENVIR ST/ F&W ECOL/ ZOOLOGY 651	Conservation Biology	3
ENTOM 450	Basic and Applied Insect Ecology	3
ENTOM 451	Basic and Applied Insect Ecology Laboratory	1
ENVIR ST/ ZOOLOGY 315	Limnology-Conservation of Aquatic Resources	2
ENVIR ST/ LAND ARC 361	Wetlands Ecology	3
F&W ECOL 379	Principles of Wildlife Management	3
F&W ECOL 550	Forest Ecology	3
F&W ECOL/ LAND ARC/ ZOOLOGY 565	Principles of Landscape Ecology	2
F&W ECOL/ ZOOLOGY 660	Climate Change Ecology	3
GENETICS 528	Banking Animal Biodiversity: International Field Study in Costa Rica	1

MICROBIO/AN SCI/ BOTANY 335	The Microbiome of Plants, Animals, and Humans	3
PL PATH 300	Introduction to Plant Pathology <sup>1</sup>	4
PL PATH 315	Plant Microbiomes <sup>1</sup>	4
ZOOLOGY 304	Marine Biology	2
ZOOLOGY 316	Laboratory for Limnology-Conservation of Aquatic Resources <sup>1</sup>	2-3
ZOOLOGY 320	Field Marine Biology <sup>1</sup>	3
ZOOLOGY 504	Modeling Animal Landscapes	3-5
ZOOLOGY/ ENVIR ST 510	Ecology of Fishes	3
ZOOLOGY/ ENVIR ST 511	Ecology of Fishes Lab <sup>1</sup>	2

### D. Evolution and Systematics

Code	Title	Credits
ANTHRO 302	Hominoid Evolution	3
ANTHRO 304	Heredity, Environment and Human Populations	3
ANTHRO/BOTANY/ ZOOLOGY 410	Evolutionary Biology	3
ANTHRO 411	The Evolution of the Genus, Homo	3
ANTHRO 458	Primate Behavioral Ecology	3
ANTHRO 603	Seminar in Evolutionary Theory	3
BIOLOGY/ GENETICS 522	Communicating Evolutionary Biology	2-3
BOTANY 305	Plant Morphology and Evolution <sup>1</sup>	4
BOTANY 400	Plant Systematics <sup>1</sup>	4
BOTANY 401	Vascular Flora of Wisconsin <sup>1</sup>	4
BOTANY 422	Plant Geography	3
BOTANY/ PL PATH 563	Phylogenetic Analysis of Molecular Data	3
ENTOM 432	Taxonomy and Bionomics of Immature Insects <sup>1</sup>	4
ENTOM/GENETICS/ ZOOLOGY 624	Molecular Ecology	3
ENVIR ST/ F&W ECOL/ ZOOLOGY 360	Extinction of Species	3
GENETICS 468	General Genetics 2	3
GEOSCI/ ZOOLOGY 541	Paleobiology	3
MICROBIO 450	Diversity, Ecology and Evolution of Microorganisms	3
PSYCH 449	Animal Behavior	3
PSYCH 450	Primate Psychology: Insights into Human Behavior	3
ZOOLOGY 300	Invertebrate Biology and Evolution	3
ZOOLOGY 301	Invertebrate Biology and Evolution Lab <sup>1</sup>	2
ZOOLOGY 415	Genetics of Human History	3
ZOOLOGY 425	Behavioral Ecology	3

**E. Applied Biology, Agriculture and Natural Resources**

<b>Code</b>	<b>Title</b>	<b>Credits</b>
A A E/AGRONOMY/ NUTR SCI 350	World Hunger and Malnutrition	3
AGRONOMY 300	Cropping Systems	3
AGRONOMY 302	Forage Management and Utilization	3
AGRONOMY/ HORT 360	Genetically Modified Crops: Science, Regulation & Controversy	2
AGRONOMY 377	Global Food Production and Health	3
AGRONOMY/ HORT 501	Principles of Plant Breeding	3
AGRONOMY/ ATM OCN/ SOIL SCI 532	Environmental Biophysics	3
AMER IND/ ANTHRO/ BOTANY 474	Ethnobotany	3-4
AN SCI/DY SCI/ NUTR SCI 311	Comparative Animal Nutrition	3
AN SCI/DY SCI 320	Animal Health and Disease	3
AN SCI/DY SCI 361	Introduction to Animal and Veterinary Genetics	2
AN SCI/DY SCI 363	Principles of Animal Breeding	2
AN SCI 503	Avian Physiology <sup>1</sup>	3
AN SCI 512	Management for Avian Health <sup>1</sup>	3
BIOCORE 587	Biological Interactions	3
BOTANY 403	Field Collections and Identification	1-4
DY SCI/ AGRONOMY 471	Food Production Systems and Sustainability	3
ENTOM 351	Principles of Economic Entomology	3
ENTOM/ ZOOLOGY 371	Medical Entomology <sup>1</sup>	3
ENTOM/ F&W ECOL 500	Insects in Forest Ecosystem Function and Management	2
ENVIR ST/ POP HLTH 471	Introduction to Environmental Health	3
ENVIR ST/ POP HLTH 502	Air Pollution and Human Health	3
F&W ECOL 306	Terrestrial Vertebrates: Life History and Ecology <sup>1</sup>	4
F&W ECOL/ HORT/LAND ARC/ PL PATH 309	Diseases of Trees and Shrubs	3
F&W ECOL/ ZOOLOGY 335	Human/Animal Relationships: Biological and Philosophical Issues	3
F&W ECOL 410	Principles of Silviculture	3
F&W ECOL 415	Tree Physiology	3
F&W ECOL/ SURG SCI 548	Diseases of Wildlife	3
F&W ECOL 561	Wildlife Management Techniques <sup>1</sup>	3
FOOD SCI/ MICROBIO 324	Food Microbiology Laboratory <sup>1</sup>	2
FOOD SCI/ MICROBIO 325	Food Microbiology	3
FOOD SCI 532	Integrated Food Manufacturing <sup>1</sup>	4
GENETICS 548	The Genomic Revolution	3

GENETICS/ HORT 550	Molecular Approaches for Potential Crop Improvement	3
HORT/ LAND ARC 263	Landscape Plants I <sup>1</sup>	3
HORT 370	World Vegetable Crops	3
HORT 372	Seminar in Organic Agriculture	1
HORT/ AGRONOMY 376	Tropical Horticultural Systems	2
HORT 378	Tropical Horticultural Systems International Field Study	2
M&ENVTOX/ ONCOLOGY/ PHM SCI/PHMCOL- M/POP HLTH 625	Toxicology I	3
MED PHYS/ PHYSICS 265	Introduction to Medical Physics	2
M M & I 554	Emerging Infectious Diseases and Bioterrorism	2
MICROBIO/ SOIL SCI 425	Environmental Microbiology	3
NTP/MED PHYS 651	Methods for Neuroimaging Research	3
NUTR SCI 332	Human Nutritional Needs	3
PL PATH/ SOIL SCI 323	Soil Biology	3
PL PATH 517	Plant Disease Resistance	2-3
SOIL SCI 321	Soils and Environmental Chemistry	3

**CAPSTONE REQUIREMENT**

<b>Code</b>	<b>Title</b>	<b>Credits</b>
Two credits minimum required. With advisor approval, directed study or research-based senior thesis in a biological science discipline can also count. The experience must be completed after the first year of an introductory biology sequence above. The capstone experience will normally be completed during the student's final two or three semesters. Also, a subset of laboratory courses has been approved for capstone. The following courses, along with 682s and 692s in biological science departments (taken senior year), can be accepted as fulfilling the capstone experience.		
ANAT&PHY 435	Fundamentals of Human Physiology	5
BIOCORE 486	Principles of Physiology Laboratory <sup>2</sup>	2
BOTANY/ F&W ECOL 455	The Vegetation of Wisconsin	4
BOTANY/ F&W ECOL/ ZOOLOGY 460	General Ecology	4
ENVIR ST/ ZOOLOGY 511	Ecology of Fishes Lab	2
F&W ECOL 599	Wildlife Research Capstone (limited access)	3
GENETICS 527	Developmental Genetics for Conservation and Regeneration	3
PL PATH 315	Plant Microbiomes	4

ZOOLOGY 316	Laboratory for Limnology- Conservation of Aquatic Resources	2-3
ZOOLOGY 555	Laboratory in Developmental Biology	3
ZOOLOGY 612	Comparative Physiology Laboratory	2

## BIOLOGY NAMED OPTIONS

Instead of completing the requirements above, students may choose to select one of the options below.

View as listView as grid

- BIOLOGY: EVOLUTIONARY BIOLOGY ([HTTP://GUIDE.WISC.EDU/UNDERGRADUATE/AGRICULTURAL-LIFE-SCIENCES/BACTERIOLOGY/BIOLOGY-BS/BIOLOGY-EVOLUTIONARY-BIOLOGY-BS/](http://GUIDE.WISC.EDU/UNDERGRADUATE/AGRICULTURAL-LIFE-SCIENCES/BACTERIOLOGY/BIOLOGY-BS/BIOLOGY-EVOLUTIONARY-BIOLOGY-BS/))
- BIOLOGY: PLANT BIOLOGY ([HTTP://GUIDE.WISC.EDU/UNDERGRADUATE/AGRICULTURAL-LIFE-SCIENCES/BACTERIOLOGY/BIOLOGY-BS/BIOLOGY-PLANT-BIOLOGY-BS/](http://GUIDE.WISC.EDU/UNDERGRADUATE/AGRICULTURAL-LIFE-SCIENCES/BACTERIOLOGY/BIOLOGY-BS/BIOLOGY-PLANT-BIOLOGY-BS/))

## HONORS IN THE MAJOR

Students admitted to the university and to the College of Agricultural and Life Sciences are invited to apply to be considered for admission to the CALS Honors Program.

### Admission Criteria for New First-Year Students:

- Complete program application including essay questions

### Admission Criteria for Transfer and Continuing UW-Madison Students:

- UW-Madison cumulative GPA of at least 3.25
- Complete program application including essay questions

## HOW TO APPLY

The application is available on the CALS Honors Program website (<https://cals.wisc.edu/academics/undergraduate/current-students/honors-program/>). Applications are accepted at any time.

New first-year students with accepted applications will automatically be enrolled in Honors in Research. It is possible to switch to Honors in the Major in the student's first semester on campus after receiving approval from the advisor for that major. Transfer and continuing students may apply directly to Honors in Research or Honors in the Major (after approval from the major advisor).

## REQUIREMENTS

All CALS Honors programs have the following requirements:

- Earn at least a cumulative 3.25 GPA at UW-Madison (some programs have higher requirements)
- Complete the program-specific requirements listed below
- Submit completed thesis documentation to CALS Academic Affairs

## REQUIREMENTS

### HONORS IN THE MAJOR IN BIOLOGY: REQUIREMENTS

To earn Honors in the Major in Biology, students must satisfy the requirements for the major (above) as well as the following requirements:

- Earn a 3.300 overall university GPA
- Complete a two-semester Senior Honors Thesis for 6 credits total and present research in a public forum
- Complete at least 20 credits of Honors coursework from the following sections of the Biology curriculum:
  - Introductory Biology
  - Foundation Courses
  - Upper-Level Breadth in the Major
- At least 6 of the 20 credits of Honors coursework must be from the Upper-Level Breadth in the Major requirement

## FOOTNOTES

1

Course also approved for lab credit

2

To count BIOCORE 486 Principles of Physiology Laboratory for capstone, students must also complete BIOCORE 382 Evolution, Ecology, and Genetics Laboratory and BIOCORE 384 Cellular Biology Laboratory.

## UNIVERSITY DEGREE REQUIREMENTS

**Total Degree** To receive a bachelor's degree from UW-Madison, students must earn a minimum of 120 degree credits. The requirements for some programs may exceed 120 degree credits. Students should consult with their college or department advisor for information on specific credit requirements.

**Residency** Degree candidates are required to earn a minimum of 30 credits in residence at UW-Madison. "In residence" means on the UW-Madison campus with an undergraduate degree classification. "In residence" credit also includes UW-Madison courses offered in distance or online formats and credits earned in UW-Madison Study Abroad/Study Away programs.

**Quality of Work** Undergraduate students must maintain the minimum grade point average specified by the school, college, or academic program to remain in good academic standing. Students whose academic performance drops below these minimum thresholds will be placed on academic probation.