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/#requirementsforundergraduatetext) 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

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>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.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Residency: Students must complete 30 degree credits in residence at UW–Madison after earning 86 credits toward their undergraduate degree.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>First Year Seminar (<a href="http://guide.wisc.edu/undergraduate/agricultural-life-sciences/#requirementstext">http://guide.wisc.edu/undergraduate/agricultural-life-sciences/#requirementstext</a>)</td>
<td>1</td>
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</table>

MAJOR REQUIREMENTS

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mathematics and Statistics</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select one of the following (or may be satisfied by placement exam):</td>
<td>5-6</td>
</tr>
<tr>
<td></td>
<td>MATH 112 &amp; MATH 113</td>
<td>Algebra and Trigonometry</td>
</tr>
<tr>
<td></td>
<td>MATH 114</td>
<td>Algebra and Trigonometry</td>
</tr>
<tr>
<td></td>
<td>MATH 171</td>
<td>Calculus with Algebra and Trigonometry I</td>
</tr>
<tr>
<td></td>
<td>Select one of the following:</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>STAT 301</td>
<td>Introduction to Statistical Methods</td>
</tr>
<tr>
<td></td>
<td>STAT 371</td>
<td>Introductory Applied Statistics for the Life Sciences</td>
</tr>
<tr>
<td></td>
<td>Chemistry</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select one of the following:</td>
<td>4-5</td>
</tr>
<tr>
<td></td>
<td>CHEM 103</td>
<td>General Chemistry I</td>
</tr>
<tr>
<td></td>
<td>CHEM 108</td>
<td>Chemistry in Our World (only for Natural Resources track students)</td>
</tr>
<tr>
<td></td>
<td>CHEM 109</td>
<td>Advanced General Chemistry</td>
</tr>
<tr>
<td></td>
<td>Biology</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select one of the following options:</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Option 1 (recommended):</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BIOLOGY/ &amp; ZOOLOGY 151 &amp; BOTANY/</td>
<td>Introductory Biology and Introductory Biology</td>
</tr>
<tr>
<td></td>
<td>ZOOLOGY 152</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Option 2:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>ZOOLOGY/ &amp; ZOOLOGY 101 &amp; BIOLOGY 102 &amp; BOTANY/</td>
<td>Animal Biology and Animal Biology Laboratory and General Botany</td>
</tr>
<tr>
<td></td>
<td>BIOLOGY 130</td>
<td></td>
</tr>
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<td></td>
<td>Option 3:</td>
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## Core

### Wildlife Ecology

<table>
<thead>
<tr>
<th>Course Details</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>F&amp;W ECOL 101</td>
<td>Orientation to Wildlife Ecology</td>
<td>1</td>
</tr>
<tr>
<td>F&amp;W ECOL 306</td>
<td>Terrestrial Vertebrates: Life History and Ecology</td>
<td>4</td>
</tr>
<tr>
<td>F&amp;W ECOL 318</td>
<td>Principles of Wildlife Ecology</td>
<td>3</td>
</tr>
<tr>
<td>F&amp;W ECOL 379</td>
<td>Principles of Wildlife Management</td>
<td>3</td>
</tr>
<tr>
<td>F&amp;W ECOL 561</td>
<td>Wildlife Management Techniques</td>
<td>3</td>
</tr>
<tr>
<td>F&amp;W ECOL 655</td>
<td>Animal Population Dynamics</td>
<td>3</td>
</tr>
</tbody>
</table>

### Plant Taxonomy

<table>
<thead>
<tr>
<th>Course Details</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOTANY 400</td>
<td>Plant Systematics</td>
<td>4</td>
</tr>
<tr>
<td>or BOTANY 401</td>
<td>Vascular Flora of Wisconsin</td>
<td>4</td>
</tr>
</tbody>
</table>

### Anatomy/Physiology/Disease

Select one of the following: 3-5

- F&W ECOL/ SURG SCI 548 | Diseases of Wildlife (recommended) | 3 |
- ANAT&PHY 335 | Physiology | 2 |
- ZOOLOGY 430 | Comparative Anatomy of Vertebrates | 3 |
- ZOOLOGY 611 | Comparative and Evolutionary Physiology | 3 |

### Evolution/Genetics

Select one of the following: 3-5

- ZOOLOGY/ ANTHRO/ BOTANY 410 | Evolutionary Biology | 3 |
- GENETICS 466 | Principles of Genetics | 3 |
- BIOCORE 381 & BIOCORE 382 | Evolution, Ecology, and Genetics and Evolution, Ecology, and Genetics Laboratory | 3 |

### Wildlife Biology

Select one of the following: 5-6

- ZOOLOGY/ AN SCI/ F&W ECOL 520 & ZOOLOGY/ AN SCI/ F&W ECOL 521 | Ornithology and Birds of Southern Wisconsin | 2 |
- ZOOLOGY/ ENVIR ST 510 & ZOOLOGY/ ENVIR ST 511 | Ecology of Fishes and Ecology of Fishes Lab | 3 |

### Breadth

Select 3 credits from breadth courses (below) | 3 |

## Track Courses

Select one of the following: 14-17

- Natural Sciences Track
- Natural Resources Track

## Capstone

Select one of the following:

<table>
<thead>
<tr>
<th>Course Details</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>F&amp;W ECOL 577</td>
<td>Complexity and Conservation of White-tailed Deer</td>
<td>3</td>
</tr>
<tr>
<td>F&amp;W ECOL 599</td>
<td>Wildlife Research Capstone</td>
<td>3</td>
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</table>

## BREADTH COURSES

<table>
<thead>
<tr>
<th>Code Details</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>AGRONOMY/ BOTANY/ SOIL SCI 370</td>
<td>Grassland Ecology</td>
<td>3</td>
</tr>
<tr>
<td>ENVIR ST/ LAND ARC 361</td>
<td>Wetlands Ecology</td>
<td>3</td>
</tr>
<tr>
<td>ENVIR ST 375</td>
<td>Field Ecology Workshop</td>
<td>3</td>
</tr>
<tr>
<td>F&amp;W ECOL/ ENVIR ST/ ZOOLOGY 360</td>
<td>Extinction of Species</td>
<td>3</td>
</tr>
<tr>
<td>F&amp;W ECOL/ BOTANY 402</td>
<td>Dendrology</td>
<td>3</td>
</tr>
<tr>
<td>LAND ARC/ ENVIR ST 581</td>
<td>Prescribed Fire: Ecology and Implementation</td>
<td>3</td>
</tr>
<tr>
<td>LAND ARC 668</td>
<td>Restoration Ecology</td>
<td>3</td>
</tr>
<tr>
<td>F&amp;W ECOL 300</td>
<td>Forest Biometry</td>
<td>4</td>
</tr>
<tr>
<td>F&amp;W ECOL 404</td>
<td>Wildlife Damage Management</td>
<td>3</td>
</tr>
<tr>
<td>F&amp;W ECOL 424</td>
<td>Wildlife Ecology Summer Field Practicum (this course, taken for 2 credits, will complete the requirement)</td>
<td>2</td>
</tr>
<tr>
<td>F&amp;W ECOL/ ENVIR ST 515</td>
<td>Natural Resources Policy</td>
<td>3</td>
</tr>
<tr>
<td>F&amp;W ECOL/ SURG SCI 548</td>
<td>Diseases of Wildlife</td>
<td>3</td>
</tr>
<tr>
<td>F&amp;W ECOL 550</td>
<td>Forest Ecology</td>
<td>3</td>
</tr>
<tr>
<td>F&amp;W ECOL/ LAND ARC/ ZOOLOGY 565</td>
<td>Principles of Landscape Ecology</td>
<td>2</td>
</tr>
<tr>
<td>F&amp;W ECOL/ AGRONOMY/ ENTOM/ M&amp;ENVTOX 632</td>
<td>Ecotoxicology: The Chemical Players</td>
<td>1</td>
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<tr>
<td>F&amp;W ECOL/ AGRONOMY/ ENTOM/ M&amp;ENVTOX 633</td>
<td>Ecotoxicology: Impacts on Individuals</td>
<td>1</td>
</tr>
<tr>
<td>F&amp;W ECOL/ AGRONOMY/ ENTOM/ M&amp;ENVTOX 634</td>
<td>Ecotoxicology: Impacts on Populations, Communities and Ecosystems</td>
<td>1</td>
</tr>
</tbody>
</table>

1 Only allowed for students who completed the rest of the Biocore curriculum listed under Biology.


## Total Credits

74-84
Courses used in this category cannot be double counted toward any other major requirement.

**TRACKS**

**NATURAL SCIENCES TRACK**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Select one of the following:</td>
<td>5</td>
</tr>
<tr>
<td>MATH 211</td>
<td>Calculus</td>
<td></td>
</tr>
<tr>
<td>MATH 217</td>
<td>Calculus with Algebra and Trigonometry II</td>
<td></td>
</tr>
<tr>
<td>MATH 221</td>
<td>Calculus and Analytic Geometry I</td>
<td></td>
</tr>
<tr>
<td>CHEM 104</td>
<td>General Chemistry II ^1</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Select one of the following:</td>
<td>4-5</td>
</tr>
<tr>
<td>PHYSICS 103</td>
<td>General Physics</td>
<td></td>
</tr>
<tr>
<td>PHYSICS 201</td>
<td>General Physics</td>
<td></td>
</tr>
<tr>
<td>PHYSICS 207</td>
<td>General Physics</td>
<td></td>
</tr>
</tbody>
</table>

**NATURAL RESOURCES TRACK**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Select two of the following:</td>
<td>3-7</td>
</tr>
<tr>
<td>F&amp;W ECOL 404</td>
<td>Wildlife Damage Management</td>
<td></td>
</tr>
<tr>
<td>F&amp;W ECOL 424</td>
<td>Wildlife Ecology Summer Field Practicum</td>
<td></td>
</tr>
<tr>
<td>F&amp;W ECOL/ ENVIR ST 515</td>
<td>Natural Resources Policy</td>
<td></td>
</tr>
<tr>
<td>F&amp;W ECOL/ SURG SCI 548</td>
<td>Diseases of Wildlife</td>
<td></td>
</tr>
<tr>
<td>ENVIR ST/ GEOG 439</td>
<td>US Environmental Policy and Regulation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Select one of the following:</td>
<td>3</td>
</tr>
<tr>
<td>F&amp;W ECOL/ ENVIR ST/ ZOOLOGY 360</td>
<td>Extinction of Species</td>
<td></td>
</tr>
<tr>
<td>F&amp;W ECOL/ BOTANY/ ENVIR ST/ ZOOLOGY 651</td>
<td>Conservation Biology</td>
<td></td>
</tr>
</tbody>
</table>

**Forest Management Electives**

Select one of the following: 2-4

- F&W ECOL 305 Forest Operations
- F&W ECOL 410 Principles of Silviculture
- F&W ECOL 658 Forest Resources Practicum

**Natural Resources Management Electives**

Select one of the following: 2-4

- C&E SOC/ F&W ECOL/ SOC 248 Environment, Natural Resources, and Society
- C&E SOC/ ENVIR ST/ GEOG 434 People, Wildlife and Landscapes
- C&E SOC/ SOC 541 Environmental Stewardship and Social Justice
- F&W ECOL/ ZOOLOGY 335 Human/Animal Relationships: Biological and Philosophical Issues
- F&W ECOL/A A E/ ECON 531 Natural Resource Economics
- ENVIR ST/ GEOG 337 Nature, Power and Society
- ENVIR ST/ GEOG 339 Environmental Conservation
- ENVIR ST/A A E/ ECON 343 Environmental Economics
- ENVIR ST/ ECON/POLI SCI/ URB R PL 449 Government and Natural Resources
- ENVIR ST/ SOIL SCI 575 Assessment of Environmental Impact

**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.