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

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
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<td></td>
</tr>
</tbody>
</table>

• 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 BS 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>
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<tr>
<td></td>
<td>First year seminar (<a href="http://guide.wisc.edu/undergraduate/agricultural-life-sciences/#CALSFirstYearSeminarCourses">http://guide.wisc.edu/undergraduate/agricultural-life-sciences/#CALSFirstYearSeminarCourses</a>)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>International studies (<a href="http://guide.wisc.edu/undergraduate/agricultural-life-sciences/#CALSInternationalStudiesCourses">http://guide.wisc.edu/undergraduate/agricultural-life-sciences/#CALSInternationalStudiesCourses</a>)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Physical science fundamentals</td>
<td>4-5</td>
</tr>
<tr>
<td></td>
<td>CHEM 103 General Chemistry I</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CHEM 108 Chemistry in Our World</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CHEM 109 Advanced General Chemistry</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Biological science</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Additional science (biological, physical, or natural)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Science breadth (biological, physical, natural, or social)</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>CALS Capstone Learning Experience: included in the requirements for each CALS major (see &quot;major requirements&quot;) (<a href="http://guide.wisc.edu/undergraduate/agricultural-life-sciences/#CALScapstoneRequirement">http://guide.wisc.edu/undergraduate/agricultural-life-sciences/#CALScapstoneRequirement</a>)</td>
<td></td>
</tr>
</tbody>
</table>

SUMMARY OF MAJOR REQUIREMENTS

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Major Requirements</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mathematics and Science Foundation</td>
<td>19-25</td>
</tr>
<tr>
<td></td>
<td>Animal Veterinary Biosciences Core Requirements</td>
<td>37-38</td>
</tr>
<tr>
<td></td>
<td>Capstone in Major</td>
<td>2-3</td>
</tr>
<tr>
<td></td>
<td>Total Credits</td>
<td>58-66</td>
</tr>
</tbody>
</table>

ANIMAL & VETERINARY BIO SCIENCES MAJOR REQUIREMENTS

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mathematics</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete one of the following (or may be satisfied by placement exam):</td>
<td>3-5</td>
</tr>
<tr>
<td></td>
<td>MATH 112 Algebra</td>
<td></td>
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<tr>
<td></td>
<td>MATH 114 Algebra and Trigonometry</td>
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<tr>
<td></td>
<td>Statistics</td>
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<tr>
<td></td>
<td>Complete one of the following:</td>
<td>3</td>
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<tr>
<td></td>
<td>STAT 301 Introduction to Statistical Methods</td>
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<tr>
<td></td>
<td>STAT 371 Introductory Applied Statistics for the Life Sciences</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Chemistry</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Complete one of the following:</td>
<td>5-9</td>
</tr>
</tbody>
</table>
CHEM 103 & CHEM 104  General Chemistry I and General Chemistry II
CHEM 109  Advanced General Chemistry

Biology
Complete one of the following:  5
BIOLOGY/ BOTANY/ ZOOLOGY 151  Introductory Biology
BIOLOGY/ ZOOLOGY 101  Animal Biology
& BIOLOGY/ ZOOLOGY 102  and Animal Biology Laboratory

Biochemistry
Complete one of the following:  3
BIOCHEM 301  Survey of Biochemistry
BIOCHEM 501  Introduction to Biochemistry

Introduction to the Major
Complete the following:  4
AN SCI/ DY SCI 101  Introduction to Animal Sciences
AN SCI/ DY SCI 102  Laboratory

Animal Science Core
Complete four courses from the following:  11-12
AN SCI 245  Animal Welfare
AN SCI/DY SCI/ NUTR SCI 311  Comparative Animal Nutrition
AN SCI/ DY SCI 320  Animal Health and Disease
AN SCI/ DY SCI 361  Introduction to Animal and Veterinary Genetics
AN SCI/ DY SCI 373  Animal Physiology

Animal Biology Depth
Complete at least 10 credits from the following:  10
AN SCI 245  Animal Welfare
AN SCI/DY SCI/ FOOD SCI 305  Introduction to Meat Science and Technology
AN SCI/DY SCI/ NUTR SCI 311  Comparative Animal Nutrition
AN SCI/ DY SCI 320  Animal Health and Disease
AN SCI 336  Animal Growth and Development
AN SCI/ DY SCI 361  Introduction to Animal and Veterinary Genetics
AN SCI/ DY SCI 362  Veterinary Genetics
or AN SCI/ DY SCI 363  Principles of Animal Breeding
AN SCI 366  Concepts in Genomics
AN SCI/ DY SCI 373  Animal Physiology
DY SCI 378  Lactation Physiology
AN SCI/ DY SCI 414  Ruminant Nutrition & Metabolism

AN SCI 415  Application of Monogastric Nutrition Principles
AN SCI 420  Microbiomes of Animal Systems
AN SCI/ DY SCI 434  Reproductive Physiology

Major Breadth
Complete at least 12 credits from the following:  12
AN SCI 200  The Biology and Appreciation of Companion Animals
DY SCI 233  Dairy Herd Management I
DY SCI 234  Dairy Herd Management II
AN SCI/BSE 344  Digital Technologies for Animal Monitoring
AN SCI 399  Coordinating Internship/ Cooperative Education (Footnote 2 applies to both AN SCI 399 and 699) 2
or AN SCI 699  Special Problems
A A E 422  Food Systems and Supply Chains
AN SCI 431  Beef Cattle Production
AN SCI 432  Swine Production
AN SCI/ FOOD SCI 515  Commercial Meat Processing
DY SCI 534  Reproductive Management of Dairy Cattle
BIOLOGY/ BOTANY/ ZOOLOGY 152  Introductory Biology
or BIOLOGY/ BOTANY 130  General Botany
CHEM 343  Organic Chemistry I
PHYSICS 103  General Physics
MICROBIO 303  Biology of Microorganisms
M M & I/ENTOM/ PATH-BIO/ ZOOLOGY 350  Parasitology

Capstone in Major
Complete one of the following: 2-3
AN SCI 435  Animal Sciences Proseminar
DY SCI 535  Dairy Farm Management Practicum

Total Credits  58-66

1 Courses cannot count for both Animal Science Core and Depth.
2 Maximum of 3 credits.

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
To earn honors in the major, students are required to take at least 20 honors credits. In addition, students must take AN SCI 681 Senior Honor Thesis and AN SCI 682 Senior Honors Thesis when completing their thesis project; please see the honors program page (https://cals.wisc.edu/academics/undergraduate/current-students/honors-program/) for more information.

UNIVERSITY DEGREE REQUIREMENTS

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Degree</td>
<td>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.</td>
</tr>
<tr>
<td>Residency</td>
<td>Degree candidates are required to earn a minimum of 30 credits in residence at UW–Madison. &quot;In residence&quot; means on the UW–Madison campus with an undergraduate degree classification. &quot;In residence&quot; credit also includes UW–Madison courses offered in distance or online formats and credits earned in UW–Madison Study Abroad/Study Away programs.</td>
</tr>
<tr>
<td>Quality of Work</td>
<td>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.</td>
</tr>
</tbody>
</table>