DAIRY SCIENCE, B.S.

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

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<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<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>
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<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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<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>
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International Studies (http://guide.wisc.edu/undergraduate/agricultural-life-sciences/#requirementstext) 3
Physical Science Fundamentals 4-5
CHEM 103 or CHEM 108 General Chemistry I or 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") (http://guide.wisc.edu/undergraduate/agricultural-life-sciences/#requirementstext)

MAJOR REQUIREMENTS

Mathematics and Statistics
Select one of the following (or may be satisfied by placement exam): 3-5
- MATH 112 Algebra
- MATH 114 Algebra and Trigonometry
- MATH 171 Calculus with Algebra and Trigonometry I
Select one of the following: 3
- STAT 301 or STAT 371 Introduction to Statistical Methods or Introductory Applied Statistics for the Life Sciences

Chemistry
Select one of the following: 4-5
- CHEM 103 & CHEM 104 General Chemistry I and General Chemistry II
- CHEM 109 Advanced General Chemistry

Biology
Select one of the following options: 9-10
Option 1:
- ZOOLOGY/ BIOLOGY 101 Animal Biology
- ZOOLOGY/ BIOLOGY 102 Animal Biology Laboratory
- AGRONOMY 100 Principles and Practices in Crop Production

Option 2:
- ZOOLOGY/ BIOLOGY 101 Animal Biology
- ZOOLOGY/ BIOLOGY 102 Animal Biology Laboratory
- BOTANY/ BIOLOGY 130 General Botany

Option 3:
- BIOLOGY/ BOTANY/ ZOOLOGY 151 Introductory Biology
BIOLOGY/BOTANY/ZOOLOGY 152  Introductory Biology

Select one of the following:  
- GENETICS 466  Principles of Genetics  
- CHEM 341  Elementary Organic Chemistry  
- CHEM 343  Introductory Organic Chemistry  
- MICROBIO 101  General Microbiology  
- MICROBIO 303  Biology of Microorganisms  
- M M & I 341  Immunology

Biochemistry  
Select one of the following: 3-6  
- BIOCHEM 301  Survey of Biochemistry  
- BIOCHEM 501  Introduction to Biochemistry  
- BIOCHEM 507 & BIOCHEM 508  General Biochemistry I and General Biochemistry II  
- BMOLCHEM 314  Introduction to Human Biochemistry (offered during summer session only)

Economics  
Select one of the following: 4  
- A A E 215  Introduction to Agricultural and Applied Economics  
- ECON 101  Principles of Microeconomics

Dairy Science Core  
- AN SCI/DY SCI 101  Introduction to Animal Sciences 4  
- DY SCI 233  Dairy Herd Management I 3  
- DY SCI 234  Dairy Herd Management II 3  
- AN SCI/DY SCI/NUTR 311  Comparative Animal Nutrition 3  
- AN SCI/DY SCI 361  Introduction to Animal and Veterinary Genetics 2  
- AN SCI/DY SCI 362 or AN SCI/DY SCI 363  Veterinary Genetics or Principles of Animal Breeding 2  
- AN SCI/DY SCI 373  Animal Physiology 3  
- DY SCI 378  Lactation Physiology 3  
- AN SCI/DY SCI 414  Ruminant Nutrition & Metabolism 3  
- AN SCI/DY SCI 434  Reproductive Physiology 3

Capstone  
- DY SCI 399  Coordinative Internship/Cooperative Education 1-8  
- DY SCI 535  Dairy Farm Management Practicum 3

Dairy Science Electives  
Select at least 3 credits from: 3  
- DY SCI 205  Dairy Cattle Improvement Programs  
- DY SCI 272  Pre-Capstone Seminar  
- DY SCI 289  Honors Independent Study  
- DY SCI 299  Independent Study  
- DY SCI/AN SCI 370  Livestock Production and Health in Agricultural Development  
- DY SCI 375  Special Topics

DY SCI/AGRONOMY/INTER-AG 471  Food Production Systems and Sustainability

DY SCI/AN SCI/Food SCI/SOIL SCI 472  Animal Agriculture and Global Sustainable Development

DY SCI/AN SCI/Food SCI/SOIL SCI 473  International Field Study in Animal Agriculture and Sustainable Development

DY SCI 534  Reproductive Management of Dairy Cattle

DY SCI 681  Senior Honors Thesis  
DY SCI 682  Senior Honors Thesis  
DY SCI 699  Special Problems  

Total Credits: 65-79

Consult with your advisor for details.

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.