PLANT PATHOLOGY, BS

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 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 university requirement and/or a college requirement. A minimum of 15 credits must be completed in the major that are not used to complete university or college requirements.

MAJOR REQUIREMENTS

Courses may not double count within the major (unless specifically noted otherwise), but courses counted toward the major requirements may also be used to satisfy a university requirement and/or a college requirement. A minimum of 15 credits must be completed in the major that are not used to complete university or college requirements.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td></td>
<td><strong>Core Mathematics</strong></td>
<td></td>
</tr>
<tr>
<td>MATH 112</td>
<td>Algebra</td>
<td>5-6</td>
</tr>
<tr>
<td>&amp; MATH 113</td>
<td>Algebra and Trigonometry</td>
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<tr>
<td>MATH 114</td>
<td>Algebra and Trigonometry</td>
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<tr>
<td>MATH 171</td>
<td>Calculus with Algebra and Trigonometry I</td>
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<td></td>
<td><strong>Core Chemistry</strong></td>
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<tr>
<td>CHEM 103</td>
<td>General Chemistry I</td>
<td>5-9</td>
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<tr>
<td>&amp; CHEM 104</td>
<td>and General Chemistry II</td>
<td></td>
</tr>
<tr>
<td>CHEM 109</td>
<td>Advanced General Chemistry</td>
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<td></td>
<td><strong>Introductory Biology</strong></td>
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<tr>
<td>BIOLOGY/</td>
<td>Introductory Biology</td>
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<tr>
<td>BOTANY/</td>
<td>and Introductory Biology</td>
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<tr>
<td>ZOOLOGY 151</td>
<td>Animal Biology</td>
<td>3</td>
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<tr>
<td>&amp; BIOLOGY/</td>
<td>and Animal Biology Laboratory</td>
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<tr>
<td>BOTANY/</td>
<td>General Botany</td>
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<td>ZOOLOGY/</td>
<td>and General Botany</td>
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<td>152</td>
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* 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.
Plant Pathology, BS

BIOCORE 381 Evolution, Ecology, and Genetics
& BIOCORE 382 Evolution, Ecology, and Genetics Laboratory
& BIOCORE 383 Genetics Laboratory
& BIOCORE 384 Cellular Biology and Cellular Biology Laboratory

Core Physics
Complete one of the following: 4-5
PHYSICS 103 General Physics
PHYSICS 201 General Physics
PHYSICS 207 General Physics

Plant Pathology Core
PL PATH 300 Introduction to Plant Pathology 4
PL PATH/BOTANY 332 Fungi 4
Another PL PATH course numbered 300 and above 1 3

Capstone
PL PATH 590 Capstone in Plant Pathology 3

Focus Areas
Complete one of the following: 29-39
Plant-Microbe Biology Focus
Plant Health and Industry Focus

Total Credits 67-83


FOCUS AREAS

Plant-Microbe Biology Focus

Code Title Credits
Additional Mathematics and Statistics
Complete one of the following: 5
MATH 211 Survey of Calculus
MATH 217 Calculus with Algebra and Trigonometry II
MATH 221 Calculus and Analytic Geometry I
Complete one of the following: 3-4
MATH 222 Calculus and Analytic Geometry II
STAT 301 Introduction to Statistical Methods
STAT 371 Introductory Applied Statistics for the Life Sciences

Additional Chemistry
Complete one of the following options: 4-8
CHEM 343 Organic Chemistry I
& CHEM 344 and Introductory Organic Chemistry Laboratory
& CHEM 345 and Organic Chemistry II
CHEM 341 Elementary Organic Chemistry
& CHEM 342 and Elementary Organic Chemistry Laboratory

Biology
Complete one of the following options: 5-8
Option 1:
MICROBIO 303 Biology of Microorganisms
& MICROBIO 304 and Biology of Microorganisms Laboratory
GENETICS 466 Principles of Genetics
Option 2:
Complete two of the following:
BIOCORE 485 Principles of Physiology
BIOCORE 486 Principles of Physiology Laboratory
BIOCORE 587 Biological Interactions

Additional Physics
Complete one of the following: 4-5
PHYSICS 104 General Physics
PHYSICS 202 General Physics
PHYSICS 208 General Physics

Plant Physiology
BOTANY 500 Plant Physiology 3-4

Plant-Microbe Electives
Complete 5 credits from the following: 5
BIOCHEM 501 Introduction to Biochemistry
BOTANY 300 Plant Anatomy
BOTANY 400 Plant Systematics
or BOTANY 401 Vascular Flora of Wisconsin
BOTANY/F&W ECOL/ZOOLOGY 460 General Ecology
ENTOM/ZOOLOGY 302 Introduction to Entomology
Any PL PATH course numbered 300 and above

Total Credits 29-39

1 MATH 171 is a prerequisite for MATH 217.
2 MATH 221 Calculus and Analytic Geometry I/MATH 217 Calculus with Algebra and Trigonometry II is a prerequisite for MATH 222 Calculus and Analytic Geometry II

Plant Health and Industry Focus

Code Title Credits
Biology
GENETICS 466 Principles of Genetics 3

Core
PL PATH 559 Diseases of Economic Plants 3-4
or BOTANY 500 Plant Physiology

Plant Health and Industry Electives
Complete 24 credits from at least two different subject listings from the following: 24
AGRONOMY 100 Principles and Practices in Crop Production
AGRONOMY 300 Cropping Systems
AGRONOMY 302 Forage Management and Utilization
BOTANY/F&W ECOL/ZOOLOGY 260 Introductory Ecology
BOTANY 300 Plant Anatomy
<table>
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<tbody>
<tr>
<td>BOTANY/F W ECOL/ZOOLOGY 460</td>
<td>General Ecology</td>
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<tr>
<td>BOTANY 500</td>
<td>Plant Physiology</td>
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<tr>
<td>BIOCHEM 501</td>
<td>Introduction to Biochemistry</td>
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<tr>
<td>C&amp;E SOC/SOC 140</td>
<td>Introduction to Community and Environmental Sociology</td>
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<tr>
<td>C&amp;E SOC/SOC 222</td>
<td>Food, Culture, and Society</td>
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<tr>
<td>C&amp;E SOC/AMER IND/SOC 578</td>
<td>Poverty and Place</td>
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<tr>
<td>C&amp;E SOC/SOC 650</td>
<td>Sociology of Agriculture</td>
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<tr>
<td>ENTOM/ENVIR ST 201</td>
<td>Insects and Human Culture-a Survey Course in Entomology</td>
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<tr>
<td>ENTOM/ZOOLOGY 302</td>
<td>Introduction to Entomology</td>
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<tr>
<td>F&amp;W ECOL/ENVIR ST 100</td>
<td>Forests of the World</td>
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<tr>
<td>F&amp;W ECOL/ZOOLOGY 335</td>
<td>Human/Animal Relationships: Biological and Philosophical Issues</td>
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<tr>
<td>F&amp;W ECOL/ENVIR ST/ZOOLOGY 360</td>
<td>Extinction of Species</td>
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<tr>
<td>F&amp;W ECOL/BOTANY 455</td>
<td>The Vegetation of Wisconsin</td>
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<tr>
<td>F&amp;W ECOL/BOTANY 460</td>
<td>General Ecology</td>
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<tr>
<td>F&amp;W ECOL 550</td>
<td>Forest Ecology</td>
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<tr>
<td>HORT 120</td>
<td>Survey of Horticulture</td>
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<tr>
<td>HORT/PL PATH 261</td>
<td>Sustainable Turfgrass Use and Management</td>
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<tr>
<td>HORT/LAND ARC 263</td>
<td>Landscape Plants I</td>
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<tr>
<td>HORT 320</td>
<td>Environment of Horticultural Plants</td>
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<td>HORT 345</td>
<td>Fruit Crop Production</td>
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<tr>
<td>MICROBIO 101</td>
<td>General Microbiology</td>
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<td>MICROBIO 102</td>
<td>General Microbiology Laboratory</td>
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<td>MICROBIO 303</td>
<td>Biology of Microorganisms</td>
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<td>MICROBIO 304</td>
<td>Biology of Microorganisms Laboratory</td>
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<tr>
<td>NUTR SCI 132</td>
<td>Nutrition Today</td>
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<tr>
<td>NUTR SCI/AN SCI/DY SCI 311</td>
<td>Comparative Animal Nutrition</td>
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<tr>
<td>NUTR SCI 332</td>
<td>Human Nutritional Needs</td>
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<tr>
<td>NUTR SCI/A A E/AGRONOMY 350</td>
<td>World Hunger and Malnutrition</td>
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<tr>
<td>NUTR SCI/BIOCHEM 510</td>
<td>Nutritional Biochemistry and Metabolism</td>
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<tr>
<td>NUTR SCI 540</td>
<td>Community Nutrition and Health Equity</td>
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<tr>
<td>Any PL PATH course numbered 300 and above not already taken for another category</td>
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</tbody>
</table>

**SOIL SCI/ATM OCN 132** Earth’s Water: Natural Science and Human Use

**SOIL SCI/ENVIR ST/GEOG 230** Soil: Ecosystem and Resource

**SOIL SCI 301** General Soil Science

**SOIL SCI/ENVIR ST 324** Soils and Environmental Quality

**SOIL SCI/AGRONOMY/HORT 326** Plant Nutrition Management

### Business

Complete 6 credits from the following: 6

- ACCT I S 100 Introductory Financial Accounting
- ACCT I S 211 Introductory Managerial Accounting
- ACCT I S 300 Accounting Principles
- ACCT I S 301 Financial Reporting I
- ACCT I S 302 Financial Reporting II
- ACCT I S 329 Taxation: Concepts for Business and Personal Planning

- A A E 320 Agricultural Systems Management
- A A E 101 Introduction to Agricultural and Applied Economics
- A A E 322 Commodity Markets
- A A E 323 Cooperatives and Alternative Forms of Enterprise Ownership
- A A E 419 Agricultural Finance
- A A E/ECON 421 Economic Decision Analysis
- A A E/ECON 474 Economic Problems of Developing Areas

- ECON 101 Principles of Microeconomics
- ECON 102 Principles of Macroeconomics
- LSC 270 Marketing Communication for the Sciences
- M H R 300 Managing Organizations
- M H R 305 Human Resource Management

**Total Credits** 36-37

### 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.