

# PLANT PATHOLOGY, BS

## REQUIREMENTS

### UNIVERSITY REQUIREMENTS

All undergraduate students must complete both the following Core General Education (Core GenEd) and University Degree and Quality of Work requirements. The requirements below apply to students whose first term at UW-Madison or whose earliest post-high school college attendance at any institution is Summer 2026 or later.

Students whose first term at UW-Madison or whose earliest post-high school college attendance at any institution occurred before Summer 2026 should refer to the archived Guide (<https://guide.wisc.edu/archive/>) for the requirements that apply to them.

### CORE GENERAL EDUCATION (CORE GENED) REQUIREMENTS

**Civics & Perspectives** 3 credits of Civics & Perspectives coursework.

**Communication & Literacy** 6 credits of Communication & Literacy coursework. This requirement may be partially satisfied by a qualifying placement test score. More information: <https://go.wisc.edu/qualifyingenglishplacement> (<https://go.wisc.edu/qualifyingenglishplacement/>)

**Humanities & Arts** 6 credits of Humanities & Arts coursework.

**Mathematics & Quantitative Reasoning** 6 credits of Mathematics & Quantitative Reasoning coursework. This requirement may be partially satisfied by a qualifying placement test score. More information: <https://go.wisc.edu/qualifyingmathplacement> (<https://go.wisc.edu/qualifyingmathplacement/>)

**Natural Science & Wellness** Complete both:

- 6 credits of Natural Science & Wellness or Natural Science & Wellness + Laboratory coursework.
- one course must be in Natural Science & Wellness + Laboratory coursework.

**Social & Behavioral Science** 3 credits of Social & Behavioral Science coursework.

**Total Credits** 30 credits.

For more information see the policy (<https://policy.wisc.edu/library/UW-1095/>).

### UNIVERSITY DEGREE AND QUALITY OF WORK REQUIREMENTS

All undergraduate degree recipients must complete the following minimum requirements. Requirements for some programs will exceed these requirements; see program requirements for additional information.

**Total Degree** 120 degree credits.

**Residency** Complete 30 credits in residence. A course is considered "in residence" if it is taken when in undergraduate degree-seeking status and:

- is offered by UW-Madison and completed on the UW-Madison campus or at an approved off-site location, or
- is offered by UW-Madison in an online or distance format, or is completed during participation in a UW-Madison study abroad/study away program.

**Quality of Work** Achieve at least the minimum grade point average specified by the school, college, and/or academic program.

**Math** Demonstrate minimal mathematics competence by:

- placing above MATH 96, or
- successfully completing MATH 96, or
- successfully completing a more advanced mathematics course such as MATH 112, MATH 113, MATH 114, MATH 141, MATH 211, or MATH 221.

**English Language** If required to take the UW-Madison English as a Second Language Assessment Test (MSN-ESLAT), demonstrate minimal English language competence by:

- earning credit for ESL 118, or
- achieving a qualifying MSN-ESLAT placement test score.

**Language** Complete one:

- 2 high school units of a single language other than English, or
- one course with the second semester Language designation.

**Major Declaration** Declare and complete the requirements for at least one major.

## COLLEGE OF AGRICULTURAL AND LIFE SCIENCES REQUIREMENTS

### CALS GRADUATION REQUIREMENTS

**Cumulative Credits**

- Students must earn 120 degree credits.
- Students declared in Biological Systems Engineering BS must earn 125 degree 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.

In addition to the university's general requirements, all undergraduate students in CALS must satisfy a set of college and major requirements. Courses may not double count within university requirements, CALS college requirements, or major requirements. A course may count toward university requirements and a college and/or a major requirement; similarly, a course counted toward college requirements may also be used to satisfy a university and/or a major requirement.

## CALS COLLEGE REQUIREMENTS

CALS First-Year Seminar 1 credit. See the full list of eligible courses below or use this link: <https://go.wisc.edu/calsfirstyearseminars> (<https://go.wisc.edu/calsfirstyearseminars/>)

Ethnic Studies 3 credits with the Ethnic Studies designation.

Communication A Complete either:  
 • 1 course with the Communication A designation, or  
 • satisfaction of Communication A based on UW Placement Test.

Quantitative Reasoning A Complete either:  
 • 1 course with the Quantitative Reasoning A designation, or  
 • satisfaction of Quantitative Reasoning A based on UW Placement Test.

Introductory Chemistry Complete one:  
 • CHEM 103  
 • CHEM 108  
 • CHEM 109

CALS International Comparisons 3 credits. See the full list of eligible courses below or use this link: <https://go.wisc.edu/calsinternationalcomparisons> (<https://go.wisc.edu/calsinternationalcomparisons/>)

Communication B 1 course with the Communication B designation.

Quantitative Reasoning B 1 course with the Quantitative Reasoning B designation.

Biological Science 5 credits with the Biological Science designation.

Additional Science 3 credits with the Biological, Physical, or Natural Science designations.

Science Breadth 3 credits with the Biological, Physical, Natural, or Social Science designations.

Humanities 6 credits with the Humanities or Literature designation.

Social Sciences 3 credits with the Social Sciences designation.

Capstone Learning Experience Each major articulates the required capstone learning experience.

### CALS First-Year Seminars

| Code         | Title                                                                  | Credits |
|--------------|------------------------------------------------------------------------|---------|
| AN SCI 135   | Grand Challenges and Career Opportunities in Animal and Dairy Sciences | 1       |
| BIOCHEM 100  | Biochemistry First-Year Seminar                                        | 1       |
| COUN PSY 125 | The Wisconsin Experience Seminar                                       | 1       |
| F&W ECOL 101 | Orientation to Wildlife Ecology                                        | 1       |
| F&W ECOL 105 | Environment, Pollutants, and You                                       | 3       |
| GENETICS 155 | Freshman Seminar in Genetics                                           | 1       |
| INTEGSCI 100 | Exploring Biology                                                      | 2       |
| INTEGSCI 140 | Exploring Service in STEM                                              | 1       |
| INTER-AG 155 | Issues in Agriculture, Environment, and Life Sciences                  | 1       |

|                       |                                                         |   |
|-----------------------|---------------------------------------------------------|---|
| LSC 155               | First-Year Seminar in Science Communication             | 1 |
| MICROBIO 150          | Microbiomes and Microbiology - First-Year Seminar       | 1 |
| PLANTSCI/AGROECOL 100 | First-Year Seminar in Agroecology and Plant Science     | 1 |
| PL PATH 155           | Food Frontlines: Security, Sustainability, and Survival | 1 |
| SOIL SCI 155          | First-year Seminar in Soil and Environmental Sciences   | 1 |

### Learning Community/Student Group Courses

The following learning community/student group courses are approved as CALS First-Year Seminars.

|              |                                                |   |
|--------------|------------------------------------------------|---|
| COUN PSY 117 | PEOPLE First Year Seminar                      | 1 |
| INTEGSCI 110 | BioHouse Seminar: Biology for the 21st Century | 1 |
| INTER-AG 117 | GreenHouse Roots Seminar                       | 1 |
| INTER-AG 140 | CALS QuickStart: Foundations                   | 1 |
| INTER-AG 175 | WISE Seminar                                   | 1 |

### CALS International Comparisons

| Code                                                                                                                      | Title                                                                                                  | Credits |
|---------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|---------|
| The 3 credit requirement may be fulfilled as either a stand-alone 3 credit course or as a set of courses as listed below. |                                                                                                        |         |
| A A E/ENVIR ST 244                                                                                                        | The Environment and the Global Economy                                                                 | 4       |
| A A E 319                                                                                                                 | The International Agricultural Economy                                                                 | 3       |
| A A E/NUTR SCI 350                                                                                                        | World Hunger and Malnutrition                                                                          | 3       |
| A A E 352                                                                                                                 | Global Health: Economics, Natural Systems, and Policy (approved for enrollments Summer 2021 and later) | 4       |
| A A E/INTL ST 373                                                                                                         | Globalization, Poverty and Development                                                                 | 3       |
| A A E/INTL ST 374                                                                                                         | The Growth and Development of Nations in the Global Economy                                            | 3       |
| A A E/ECON 473                                                                                                            | Economic Growth and Development in Southeast Asia                                                      | 3       |
| A A E/ECON 474                                                                                                            | Economic Problems of Developing Areas                                                                  | 3       |
| A A E/ECON/INTL BUS 462                                                                                                   | Latin American Economic Development                                                                    | 3       |
| A A E/ECON 477                                                                                                            | Agricultural and Economic Development in Africa                                                        | 3       |
| AGROECOL 377                                                                                                              | Global Food Production and Health                                                                      | 3       |
| AN SCI/DY SCI 370                                                                                                         | Livestock Production and Health in Agricultural Development                                            | 3       |
| ASIAN/HISTORY/POLI SCI 255                                                                                                | Introduction to East Asian Civilizations (approved for enrollments Summer 2021 and later)              | 3-4     |
| C&E SOC/SOC 341                                                                                                           | Labor in Global Food Systems (approved for enrollments Summer 2020 and later)                          | 3       |
| C&E SOC/ENVIR ST/SOC 540                                                                                                  | Sociology of International Development, Environment, and Sustainability                                | 3       |

|                                                                                                                                                                                                                                                               |                                                                                                                                                              |   |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|---|
| CSCS 500                                                                                                                                                                                                                                                      | Global Health and Communities: From Research to Praxis                                                                                                       | 3 |
| DY SCI 471                                                                                                                                                                                                                                                    | Food Production Systems and Sustainability                                                                                                                   | 3 |
| ENTOM/<br>ENVIR ST 201                                                                                                                                                                                                                                        | Insects and Human Culture—a Survey Course in Entomology                                                                                                      | 3 |
| ENTOM/<br>ENVIR ST 205                                                                                                                                                                                                                                        | Our Planet, Our Health (approved for enrollments Fall 2026 and later)                                                                                        | 3 |
| ENTOM/<br>ZOOLOGY 371                                                                                                                                                                                                                                         | Medical Entomology: Biology of Vector and Vector-borne Diseases                                                                                              | 3 |
| F&W ECOL/<br>ENVIR ST 100                                                                                                                                                                                                                                     | Forests of the World (approved for enrollments Summer 2020 and later)                                                                                        | 3 |
| F&W ECOL/<br>ENVIR ST/<br>ZOOLOGY 360                                                                                                                                                                                                                         | Extinction of Species                                                                                                                                        | 3 |
| LSC 251                                                                                                                                                                                                                                                       | Science, Media and Society (approved for enrollments Summer 2020 and later)                                                                                  | 3 |
| PL PATH/<br>BOTANY 123                                                                                                                                                                                                                                        | Plants, Parasites, and People                                                                                                                                | 3 |
| PL PATH 311                                                                                                                                                                                                                                                   | Global Food Security                                                                                                                                         | 3 |
| PLANTSCI 370                                                                                                                                                                                                                                                  | World Vegetable Crops                                                                                                                                        | 3 |
| The following study abroad courses fulfill the CALS International Comparisons requirement. Only the specific course numbers and titles listed, including Topics titles (in parentheses), are approved to meet the CALS International Comparisons requirement. |                                                                                                                                                              |   |
| BIOCHEM 307                                                                                                                                                                                                                                                   | Study Abroad: Introduction to Biological Sciences Research in Japan (approved for enrollments Fall 2026 and later)                                           | 3 |
| NUTR SCI/INTER-<br>AG 421                                                                                                                                                                                                                                     | Global Health Field Experience (UW Mobile Clinics and Health Care in Uganda)                                                                                 | 3 |
| INTER-AG 321<br>& INTER-AG/<br>NUTR SCI 421                                                                                                                                                                                                                   | Study Abroad Pre-Departure Seminar and Global Health Field Experience (UW Global Health Community Health and Asset-Based Community Development in Sri Lanka) | 3 |
| INTER-AG 321<br>& INTER-AG/<br>NUTR SCI 421                                                                                                                                                                                                                   | Study Abroad Pre-Departure Seminar and Global Health Field Experience (UW Agriculture, Health and Nutrition in Uganda)                                       | 3 |
| INTER-AG/<br>NUTR SCI 421                                                                                                                                                                                                                                     | Global Health Field Experience (UW Health, Education and Tanzanian Culture)                                                                                  | 3 |

## 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.

| Code                                                                                                         | Title                                                                                                                                 | Credits      |
|--------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|--------------|
| <b>Core Mathematics</b>                                                                                      |                                                                                                                                       |              |
| Complete one of the following (or may be satisfied by placement exam):                                       |                                                                                                                                       | 5-6          |
| MATH 112<br>& MATH 113                                                                                       | College Algebra and Trigonometry                                                                                                      |              |
| MATH 114                                                                                                     | Precalculus                                                                                                                           |              |
| <b>Core Chemistry</b>                                                                                        |                                                                                                                                       |              |
| Complete one of the following:                                                                               |                                                                                                                                       | 5-9          |
| CHEM 103<br>& CHEM 104                                                                                       | General Chemistry I and General Chemistry II                                                                                          |              |
| CHEM 109                                                                                                     | Advanced General Chemistry                                                                                                            |              |
| <b>Introductory Biology</b>                                                                                  |                                                                                                                                       |              |
| Complete one of the following options:                                                                       |                                                                                                                                       | 10           |
| Option 1 (preferred):                                                                                        |                                                                                                                                       |              |
| BIOLOGY/<br>BOTANY/<br>ZOOLOGY 151<br>& BIOLOGY/<br>BOTANY/<br>ZOOLOGY 152                                   | Introductory Biology and Introductory Biology                                                                                         |              |
| Option 2:                                                                                                    |                                                                                                                                       |              |
| ZOOLOGY/<br>BIOLOGY 101<br>& ZOOLOGY/<br>BIOLOGY 102<br>& BOTANY/<br>BIOLOGY 130                             | Animal Biology and Animal Biology Laboratory and General Botany                                                                       |              |
| Option 3:                                                                                                    |                                                                                                                                       |              |
| BIOCORE 381<br>& BIOCORE 382<br>& BIOCORE 383<br>& BIOCORE 384                                               | Evolution, Ecology, and Genetics and Evolution, Ecology, and Genetics Laboratory and Cellular Biology and Cellular Biology Laboratory |              |
| <b>Core Physics</b>                                                                                          |                                                                                                                                       |              |
| Complete one of the following:                                                                               |                                                                                                                                       | 4-5          |
| PHYSICS 103                                                                                                  | General Physics                                                                                                                       |              |
| PHYSICS 201                                                                                                  | General Physics                                                                                                                       |              |
| PHYSICS 207                                                                                                  | General Physics                                                                                                                       |              |
| <b>Plant Pathology Core</b>                                                                                  |                                                                                                                                       |              |
| PL PATH 300                                                                                                  | Introduction to Plant Pathology                                                                                                       | 4            |
| PL PATH/BOTANY<br>332                                                                                        | Fungi                                                                                                                                 | 4            |
| Another PL PATH course numbered 300 and above.                                                               |                                                                                                                                       | 3            |
| Cannot include PL PATH 375, PL PATH 299, PL PATH 399, PL PATH 590, PL PATH 681, PL PATH 682, or PL PATH 699. |                                                                                                                                       |              |
| <b>Capstone</b>                                                                                              |                                                                                                                                       |              |
| PL PATH 590                                                                                                  | Capstone in Plant Pathology                                                                                                           | 3            |
| <b>Focus Areas</b>                                                                                           |                                                                                                                                       |              |
| Complete one of the following:                                                                               |                                                                                                                                       | 29-39        |
| Plant-Microbe Biology Focus                                                                                  |                                                                                                                                       |              |
| Plant Health and Industry Focus                                                                              |                                                                                                                                       |              |
| <b>Total Credits</b>                                                                                         |                                                                                                                                       | <b>67-83</b> |

**FOCUS AREAS****Plant-Microbe Biology Focus**

| Code                                         | Title                                                                                      | Credits |
|----------------------------------------------|--------------------------------------------------------------------------------------------|---------|
| <b>Additional Mathematics and Statistics</b> |                                                                                            |         |
| Complete one of the following: 5             |                                                                                            |         |
| MATH 211                                     | Survey of Calculus I                                                                       |         |
| MATH 221                                     | Calculus and Analytic Geometry I                                                           |         |
| Complete one of the following: 3-4           |                                                                                            |         |
| MATH 222                                     | Calculus and Analytic Geometry 2                                                           |         |
| STAT 301                                     | Introduction to Statistical Methods                                                        |         |
| STAT 371                                     | Introductory Applied Statistics for the Life Sciences                                      |         |
| <b>Additional Chemistry</b>                  |                                                                                            |         |
| Complete one of the following options: 4-8   |                                                                                            |         |
| CHEM 343 & CHEM 344 & CHEM 345               | Organic Chemistry I and Introductory Organic Chemistry Laboratory and Organic Chemistry II |         |
| CHEM 341 & CHEM 342                          | Elementary Organic Chemistry and Elementary Organic Chemistry Laboratory                   |         |
| <b>Biology</b>                               |                                                                                            |         |
| Complete one of the following options: 5-8   |                                                                                            |         |
| Option 1:                                    |                                                                                            |         |
| MICROBIO 303 & MICROBIO 304                  | Biology of Microorganisms 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                                                                    |         |
| <b>Additional Physics</b>                    |                                                                                            |         |
| Complete one of the following: 4-5           |                                                                                            |         |
| PHYSICS 104                                  | General Physics                                                                            |         |
| PHYSICS 202                                  | General Physics                                                                            |         |
| PHYSICS 208                                  | General Physics                                                                            |         |
| <b>Plant Physiology</b>                      |                                                                                            |         |
| BOTANY 500                                   | Plant Physiology                                                                           | 3-4     |
| <b>Plant-Microbe Electives</b>               |                                                                                            |         |
| Complete 5 credits from the following: 5     |                                                                                            |         |
| BIOCHEM 501                                  | Introduction to Biochemistry                                                               |         |
| BOTANY 300                                   | Plant Anatomy                                                                              |         |
| BOTANY 400 or BOTANY 401                     | Plant Systematics or Vascular Flora of Wisconsin                                           |         |
| BOTANY/ ZOOLOGY 460                          | General Ecology                                                                            |         |
| ENTOM/ ZOOLOGY 302                           | Introduction to Entomology                                                                 |         |
| Any PL PATH course numbered 300 and above    |                                                                                            |         |

**Total Credits****29-39****Plant Health and Industry Focus**

| Code                                                                                 | Title                                                   | Credits |
|--------------------------------------------------------------------------------------|---------------------------------------------------------|---------|
| <b>Biology</b>                                                                       |                                                         |         |
| GENETICS 466                                                                         | Principles of Genetics                                  | 3       |
| <b>Core</b>                                                                          |                                                         |         |
| PL PATH 559 or BOTANY 500                                                            | Diseases of Economic Plants or Plant Physiology         | 3-4     |
| <i>Plant Health and Industry Electives</i>                                           |                                                         |         |
| Complete 24 credits from at least two different subject listings from the following: |                                                         | 24      |
| BOTANY/ ENVIR ST/ ZOOLOGY 260                                                        | Introductory Ecology                                    |         |
| BOTANY 300                                                                           | Plant Anatomy                                           |         |
| BOTANY 455                                                                           | The Vegetation of Wisconsin                             |         |
| BOTANY/ ZOOLOGY 460                                                                  | General Ecology                                         | 4       |
| BOTANY 500                                                                           | Plant Physiology                                        |         |
| BIOCHEM 501                                                                          | Introduction to Biochemistry                            |         |
| C&E SOC/ SOC 140                                                                     | Introduction to Community and Environmental Sociology   |         |
| C&E SOC/ SOC 222                                                                     | Food, Culture, and Society                              |         |
| C&E SOC/ AMER IND/ SOC 578                                                           | Poverty and Place                                       |         |
| C&E SOC/ SOC 650                                                                     | Sociology of Agriculture                                |         |
| ENTOM/ ENVIR ST 201                                                                  | Insects and Human Culture-a Survey Course in Entomology |         |
| ENTOM/ ZOOLOGY 302                                                                   | Introduction to Entomology                              |         |
| F&W ECOL/ ENVIR ST 100                                                               | Forests of the World                                    |         |
| F&W ECOL/ ENVIR ST/ ZOOLOGY 360                                                      | Extinction of Species                                   |         |
| F&W ECOL 550                                                                         | Forest Ecology                                          |         |
| MICROBIO 101                                                                         | General Microbiology                                    |         |
| MICROBIO 102                                                                         | General Microbiology Laboratory                         |         |
| MICROBIO 303                                                                         | Biology of Microorganisms                               |         |
| MICROBIO 304                                                                         | Biology of Microorganisms Laboratory                    |         |
| NUTR SCI 132                                                                         | Nutrition Today                                         |         |
| NUTR SCI/ AN SCI/ DY SCI 311                                                         | Comparative Animal Nutrition                            |         |
| NUTR SCI 332                                                                         | Human Nutritional Needs                                 |         |
| NUTR SCI/ A A E 350                                                                  | World Hunger and Malnutrition                           |         |
| NUTR SCI/ BIOCHEM 510                                                                | Nutritional Biochemistry and Metabolism                 |         |
| NUTR SCI 540                                                                         | Community Nutrition and Health Equity                   |         |
| PLANTSCI 110                                                                         | Introduction to Plant Science and Technology            |         |

|                                                                                  |                                                                 |
|----------------------------------------------------------------------------------|-----------------------------------------------------------------|
| PLANTSCI/<br>PL PATH 261                                                         | Sustainable Turfgrass Use and Management                        |
| PLANTSCI/<br>LAND ARC 263                                                        | Woody Landscape Plant Identification, Culture, and Use          |
| PLANTSCI 300                                                                     | Cropping Systems                                                |
| PLANTSCI 302                                                                     | Forage Management and Utilization                               |
| PLANTSCI 320                                                                     | Environment of Cultivated Plants                                |
| SOIL SCI/<br>ATM OCN/<br>BSE 132                                                 | Water and People                                                |
| SOIL SCI/<br>ENVIR ST/<br>GEOG 230                                               | Soil: Ecosystem and Resource                                    |
| SOIL SCI 301                                                                     | General Soil Science                                            |
| SOIL SCI/<br>ENVIR ST 324                                                        | Soils and Environmental Quality                                 |
| SOIL SCI 326                                                                     | Plant Nutrition Management                                      |
| Any PL PATH course numbered 300 and above not already taken for another category |                                                                 |
| ZOOLOGY 335                                                                      | Human/Animal Relationships: Biological and Philosophical Issues |

**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****40-41**