BOTANY, B.A.

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 [link](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 LETTERS & SCIENCE DEGREE REQUIREMENTS: BACHELOR OF ARTS (B.A.)

Students pursuing a bachelor of arts degree in the College of Letters & Science must complete all of the requirements below. The College of Letters & Science allows this major to be paired with either a bachelor of arts or a bachelor of science curriculum.

BACHELOR OF ARTS DEGREE REQUIREMENTS

Mathematics
- Complete the University General Education Requirements for Quantitative Reasoning A (QR-A) and Quantitative Reasoning B (QR-B) coursework.

Foreign Language
- Complete the fourth unit of a foreign language; OR
- Complete the third unit of a foreign language and the second unit of an additional foreign language.

L&S Breadth
- 12 credits of Humanities, which must include 6 credits of literature; and
- 12 credits of Social Science; and
- 12 credits of Natural Science, which must include one 3+ credit Biological Science course and one 3+ credit Physical Science course.

Liberal Arts and Science Coursework
- Complete at least 108 credits.

Depth of Intermediate/Advanced work
- Complete at least 60 credits at the intermediate or advanced level.

Major
- Declare and complete at least one major.

Total Credits
- Complete at least 120 credits.

UW-Madison Experience
- 30 credits in residence, overall; and
- 30 credits in residence after the 86th credit.

Quality of Work
- 2.000 in all coursework at UW–Madison
- 2.000 in Intermediate/Advanced level coursework at UW–Madison

NON–L&S STUDENTS PURSUING AN L&S MAJOR

Non–L&S students who have permission from their school/college to pursue an additional major within L&S only need to fulfill the major requirements. They do not need to complete the L&S Degree Requirements above.

REQUIREMENTS FOR THE MAJOR

MATH, CHEMISTRY, AND PHYSICS

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<thead>
<tr>
<th>Code</th>
<th>Title</th>
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<tbody>
<tr>
<td>STAT 301</td>
<td>Introduction to Statistical Methods</td>
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<tr>
<td>STAT 302</td>
<td>Accelerated Introduction to Statistical Methods</td>
<td></td>
</tr>
<tr>
<td>STAT 324</td>
<td>Introductory Applied Statistics for Engineers</td>
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<tr>
<td>STAT 371</td>
<td>Introductory Applied Statistics for the Life Sciences</td>
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<tr>
<td>CHEM 103</td>
<td>General Chemistry I</td>
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<tr>
<td>CHEM 104</td>
<td>General Chemistry II</td>
<td></td>
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<tr>
<td>CHEM 115</td>
<td>Chemical Principles I</td>
<td></td>
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<td>CHEM 116</td>
<td>Chemical Principles II</td>
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<tr>
<td>CHEM 109</td>
<td>Advanced General Chemistry</td>
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<tr>
<td>CHEM 341</td>
<td>Elementary Organic Chemistry</td>
<td>3</td>
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<tr>
<td>or CHEM 343</td>
<td>Introductory Organic Chemistry</td>
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</tr>
<tr>
<td>PHYSICS 115</td>
<td>Energy (preferred)</td>
<td>3-5</td>
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<tr>
<td>PHYSICS 103</td>
<td>General Physics</td>
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<td>PHYSICS 104</td>
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<td>PHYSICS 247</td>
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<tr>
<td>PHYSICS 248</td>
<td>A Modern Introduction to Physics</td>
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Biology and Botany Requirements

30 credits from:

**Code** | **Title** | **Credits**
--- | --- | ---

**Introductory Biology (Complete one option):** 5-10

**Option A, Recommended**

BOTANY/BOTANY/BOTANY 130 | General Botany

**Option B: Introductory Biology**

BOTANY/BOTANY/ZOOLOGY 151 | Introductory Biology

**Option C: BIOCORE**

BIOCORE 381 | Evolution, Ecology, and Genetics

BIOCORE 382 | Evolution, Ecology, and Genetics Laboratory

BIOCORE 383 | Cellular Biology

BIOCORE 384 | Cellular Biology Laboratory

BIOCORE 485 | Principles of Physiology

**Botany Distribution - Five courses, to include at least one course in these areas:** 15

**Cell, Molecular, Physiology (1 course required):**

BOTANY 300 | Plant Anatomy

or BOTANY 500 | Plant Physiology

**Ecology (1 course required):**

BOTANY/F&W ECOL 455 | The Vegetation of Wisconsin

or BOTANY/F&W ECOL/ZOOLOGY 460 | General Ecology

Genetics, Evolution (1 course required): 2

BOTANY/ANTHRO/ZOOLOGY 410 | Evolutionary Biology

AGRONOMY/HORT 338 | Plant Breeding and Biotechnology

GENETICS 466 | Principles of Genetics

GENETICS 467 | General Genetics 1

GENETICS 468 | General Genetics 2

Diversity

BOTANY 305 | Plant Morphology and Evolution

BOTANY 330 | Algae

BOTANY/PL PATH 332 | Fungi

BOTANY 400 | Plant Systematics

BOTANY 401 | Vascular Flora of Wisconsin

Optionally, 1 of the 5 required courses may come from this list, or students may take a second course from any area listed above:

BOTANY/GEOG 338 | Environmental Biogeography

BOTANY/AGRONOMY/HORT 339 | Plant Biotechnology: Principles and Techniques I

BOTANY/AGRONOMY/SOIL SCI 370 | Grassland Ecology

BOTANY/F&W ECOL 402 | Dendrology

BOTANY 403 | Field Collections and Identification

BOTANY 422 | Plant Geography

BOTANY/ZOOLOGY 450 | Midwestern Ecological Issues: A Case Study Approach

BOTANY/ENTOM/ZOOLOGY 473 | Plant-Insect Interactions

BOTANY/AMER IND/ANTHRO 474 | Ethnobotany

BOTANY/ENTOM/PL PATH 505 | Plant-Microbe Interactions: Molecular and Ecological Aspects

BOTANY 563 | Phylogenetic Analysis of Molecular Data

BOTANY/BIOCHEM 621 | Plant Biochemistry

BOTANY/ENVIR ST/F&W ECOL/ZOOLOGY 651 | Conservation Biology

BIOCHEM 501 | Introduction to Biochemistry

BIOCORE 486 | Principles of Physiology Laboratory

BIOCORE 587 | Biological Interactions

F&W ECOL 415 | Tree Physiology
Botany, B.A.

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<tr>
<td>MICROBIO 303</td>
<td>Biology of Microorganisms</td>
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<tr>
<td>ZOOLOGY 570</td>
<td>Cell Biology</td>
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**Independent Research Experience—choose one:**  

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<tr>
<td>BOTANY 691</td>
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<tr>
<td>&amp; BOTANY 692</td>
<td>and Senior Thesis</td>
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<tr>
<td>BOTANY 681</td>
<td>Senior Honors Thesis</td>
<td>6</td>
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<tr>
<td>&amp; BOTANY 682</td>
<td>and Senior Honors Thesis</td>
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</tr>
<tr>
<td>BOTANY 699</td>
<td>Directed Study</td>
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1. In addition to BOTANY/BIOLOGY 130, ZOOLOGY/BIOLOGY 101 and/or ZOOLOGY/BIOLOGY 102 will count towards 30 credits of Botany major.

2. Completion of the BIOCORE sequence also satisfies the Genetics, Evolution area (BIOCORE 381 & BIOCORE 382 & BIOCORE 383 & BIOCORE 384 & BIOCORE 485).

3. Students nearing completion of the major should seek out research opportunities with their advisor or faculty supervisor, and register for their project at the end of the junior year.

**RESIDENCE AND QUALITY OF WORK**

- 2.000 GPA in all BOTANY and major courses
- 2.000 GPA on 15 upper-level major credits, taken in residence
- 15 credits in BOTANY, taken on the UW–Madison campus

1. BOTANY 300–699 are considered upper level.

**HONORS IN THE MAJOR**

Students may declare Honors in the Botany Major in consultation with the Botany undergraduate advisor.

**HONORS IN THE MAJOR IN BOTANY: REQUIREMENTS**

To earn Honors in the Major in Botany, students must satisfy the requirements for the major (above) and the following additional requirements:

- 3.300 University GPA
- 3.400 GPA in all BOTANY and major courses
- Complete a Senior Honors Thesis in BOTANY 681 & BOTANY 682, for a total of 6 credits
- 12 additional credits in Intermediate/Advanced level BOTANY, taken for Honors

1. Excluding BOTANY 681 and BOTANY 682.

**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.