The Department of Botany provides an introduction to the living world: the diversity of its organisms; its historical origins through evolution; its principles of structure, function, and ecology; and its interactions, relationships, and effects on the nonliving world. Botany is the science of plants, algae, fungi, and bacteria—all living organisms except animals. Green plants and algae provide the photosynthetic energy for fueling all other life on earth and drive global water and carbon cycles. Fungi and bacteria are the fundamental recyclers of the earth.

The study of botany provides a broad background in the principles of modern biology and gives a solid foundation for careers in environmental studies, conservation biology, ecology, systematics, evolution, genetics, physiology, biotechnology, agriculture, and horticulture. Jobs requiring such preparation include teaching in secondary schools and colleges, research and development in industry and medicine, stewardship of our natural world through private and governmental programs, and research and teaching in academia.

**HOW TO GET IN**

Prospective botany majors should consult with the general undergraduate botany advisor by the beginning of the junior year to outline a course of study appropriate to the student’s needs. Major Declaration may occur by meeting with the undergraduate advisor in the major.

To be accepted as a major in botany, a student must have a grade point average of 2.5 for all science courses taken during the freshman and sophomore years.

**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/#requirementsforundergraduatetestudytext) section of the Guide.

**COLLEGE OF LETTERS & SCIENCE BREADTH AND 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. View a comparison of the degree requirements here. (https://pubs.wisc.edu/home/archives/ug15/images/babs2009.pdf)

**BACHELOR OF ARTS DEGREE REQUIREMENTS**

<table>
<thead>
<tr>
<th>Requirements</th>
<th>Detail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mathematics</td>
<td>Fulfilled with completion of University General Education requirements Quantitative Reasoning a (QR A) and Quantitative Reasoning b (QR B) coursework. Please note that some majors may require students to complete additional math coursework beyond the B.A. mathematics requirement.</td>
</tr>
<tr>
<td>Foreign Language</td>
<td>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</td>
</tr>
<tr>
<td>L&amp;S Breadth</td>
<td>Humanities, 12 credits: 6 of the 12 credits must be in literature Social Sciences, 12 credits Natural Sciences, 12 credits: must include one 3+ credit course in the biological sciences; must include one 3+ credit course in the physical sciences</td>
</tr>
<tr>
<td>Liberal Arts and Science Coursework</td>
<td>108 credits</td>
</tr>
<tr>
<td>Depth of Intermediate/Advanced work</td>
<td>60 intermediate or advanced credits</td>
</tr>
<tr>
<td>Major</td>
<td>Declare and complete at least one (1) major</td>
</tr>
<tr>
<td>Total Credits</td>
<td>120 credits</td>
</tr>
<tr>
<td>UW-Madison Experience</td>
<td>30 credits in residence, overall</td>
</tr>
<tr>
<td>Experience</td>
<td>30 credits in residence after the 90th credit</td>
</tr>
</tbody>
</table>
Minimum 2.000 in all coursework at UW–Madison
GPAs 2.000 in intermediate/advanced 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 and do not need to complete the L&S breadth and degree requirements above.

REQUIREMENTS FOR THE MAJOR
MATH, CHEMISTRY, AND PHYSICS

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT 301</td>
<td>Introduction to Statistical Methods</td>
<td>3</td>
</tr>
<tr>
<td>or STAT 371</td>
<td>Introductory Applied Statistics for the Life Sciences</td>
<td></td>
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</tbody>
</table>
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

1. **2.000 GPA in all BOTANY and major courses**
2. **2.000 GPA on 15 upper-level major credits, taken in residence**
3. **15 credits in BOTANY, taken on the UW–Madison campus**

**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.

### REQUIREMENTS

To earn the B.A. or B.S. degree with Honors in the Major in Botany, students must satisfy the requirements for the major and the following additional requirements:

- Earn a 3.300 overall university GPA
- Earn a 3.400 GPA in all BOTANY and courses accepted in the major
- A Senior Honors Thesis in BOTANY 681 and BOTANY 682, for a total of 6 credits, and
- 12 credits in Intermediate/Advanced BOTANY, taken for Honors

1. Excluding BOTANY 681 and BOTANY 682.

### UNIVERSITY DEGREE REQUIREMENTS

<table>
<thead>
<tr>
<th>Requirements</th>
<th>Detail</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>

### LEARNING OUTCOMES

1. Acquire and demonstrate foundational understanding of the basic properties of plant life from the subcellular to the ecosystem level of organization.
2. Acquire and demonstrate basic understanding in chemistry, physics, and mathematics to interpret biological phenomena.
3. Acquire and demonstrate detailed knowledge in at least five of these core areas of plant biology: Genetics, Physiology, Structural biology, Ecology, Systematics, Evolution, Cryptogamic biology.
4. Explore these core areas in the context of the laboratory and/or the field.
5. Engage in plant biology research (to include algae, photosynthetic bacteria, and fungi): develop hypotheses, acquire scientific information, and interpret results in the context of the historical scientific literature in one or more specialized botanical subdisciplines.
6. Develop an appreciation of communicating scientific information, especially in written form.

### ADVISING AND CAREERS

#### ADVISING

The Department of Botany encourages our majors to begin working on their career exploration and preparation soon after arriving on campus. We partner with the L&S Career Services office to help you leverage the academic skills learned in your major and liberal arts degree, explore and try out different career paths, participate in internships, prepare for the job search and/or graduate school applications, and network with professionals in the field (alumni and employers).

Letters & Science graduates are in high demand by employers and graduate programs. It is important to us that our students are career ready at the time of graduation, and we are committed to your success.

#### Career Resources:

- Why the liberal arts? ([http://ls.wisc.edu/about/why-liberal-arts](http://ls.wisc.edu/about/why-liberal-arts))
- Set up a Career Advising Appointment ([http://careers.ls.wisc.edu/Undergraduate-Advising.htm](http://careers.ls.wisc.edu/Undergraduate-Advising.htm))
- L&S Career Services ([http://careers.ls.wisc.edu/students.htm](http://careers.ls.wisc.edu/students.htm)): We launch our students higher, sooner
- INTER-LS 210 L&S Career Development: Taking Initiative (1 credit, targeted to first and second-year students)
- Learn how we’re transforming career preparation: L&S Career Initiative ([http://ls.wisc.edu/about/lsci?p=careerinitiative.html](http://ls.wisc.edu/about/lsci?p=careerinitiative.html))
- Career Advising is also available in the Botany Department: Botany Department Advising Page ([http://www.botany.wisc.edu/declaration-and-advising.htm](http://www.botany.wisc.edu/declaration-and-advising.htm))

#### PEOPLE

**Professors Ane, Baum, Cameron (chair), Emshwiller, Fernandez, Gilroy, Givnish, Graham, Hotchkiss, Larget, Otegui, Spalding, Sytsma, Waller**

Associate Professor Pringle

Assistant Professors Keefover-Ring, Maeda, McCulloh

Majors will eventually choose from the faculty a Senior Thesis advisor, who then will be the student’s undergraduate advisor. Prospective majors should contact the general advisors directly.