PLANT BIOLOGY, MS

for the degree of Master of Science in Plant Biology

chair of the department: James Dalling
overview of grad college admissions & requirements: https://grad.illinois.edu/admissions/apply
overview of program admissions requirements: program website: http://sib.illinois.edu/plantbio/
college website: https://las.illinois.edu/
program office: 286 Morrill Hall, 505 South Goodwin Avenue, Urbana, IL 61801
phone: (217) 333-3261
fax: (217) 244-9952
email: plants@life.illinois.edu

Graduate Degree Programs in Plant Biology

Plant Biology, MS (p. 1)
Plant Biology, PhD (http://catalog.illinois.edu/graduate/las/plant-biology-phd)

The Department of Plant Biology offers two graduate programs leading to the Master of Science degrees (the traditional thesis option, the non-thesis option), and a Doctor of Philosophy degree. It also participates in an interdepartmental programs leading to a doctoral degree: the Program in Ecology, Evolution and Conservation Biology (http://sib.illinois.edu/peec). In addition, students can participate, during their degree programs, in several non-degree granting interdepartmental programs and interest groups, such as the Cell and Molecular Biology Training Program (http://neuroscience.illinois.edu/program/opportunities/cellmolecular.html).

The Department teaches and conducts research in basic plant biology. Its focus is integrative:
- biological processes are investigated at multiple levels of organization using molecular biochemistry
- biochemical biodiversity
- physiological bioinformatics
- ecological approaches cell biology
- conservation biology
- development
- ecology
- environmental physiology
- evolution
- genetics
- genomics
- modeling
- molecular biology
- mycology
- paleoecology
- photosynthesis
- phytochemistry
- population biology
- biotechnology
- systems biology
- systematics

Areas of specialization within the department include:
- biochemistry
- biodiversity
- bioinformatics
- cell biology
- conservation biology
- development
- ecology
- environmental physiology
- evolution
- genetics
- genomics
- modeling
- molecular biology
- mycology
- paleoecology
- photosynthesis
- phytochemistry
- population biology
- biotechnology
- systems biology
- systematics

Graduate students acquire reasonable breadth in their overall biological and professional training as well as expert-level depth in their areas of specialization.

The Plant Biology Departmental website (http://www.life.illinois.edu/plantbio) provides additional information about the department, its admissions procedures, degree requirements, facilities, and the research interests of its faculty.

Admission

Prospective students for thesis-option graduate studies in Plant Biology are encouraged to identify faculty member(s) whose research specialty(ies) most closely coincide(s) with their interests and to correspond directly with them. Acceptance for thesis degrees is based on the applicant's academic achievement and research potential. Acceptance for the non-thesis option in Plant Biology is based on the applicant's academic achievement. While departmental requirements do not specify particular courses as prerequisites for admission, applicants should have had an undergraduate degree in biology or related sciences. Admission to the graduate program requires an undergraduate grade point average of at least 3.0 (A = 4.0). Graduate Record Examination (GRE) scores (or approved equivalent) are not required but may be submitted to strengthen application package; however no minimum scores are specified for admission. International students should have a Test of English as a Foreign Language (TOEFL) score of 600 or above on the paper-based test, or 102 or above on the internet-based test (iBT). The IELTS exam is also accepted, and applicants should have a score of 7.0 or higher.

Facilities and Resources

The Plant Biology Department's diverse state-of-the-art research laboratories are located in Morrill Hall, Edward R. Madigan laboratory and the Institute for Genomic Biology. In addition, the Department maintains extensive plant growth-chamber facilities, environmentally controlled greenhouses, a conservatory with live teaching and research collections, herbaria, a center for paleobotanical collections and diverse local and remote field sites including SoyFACE (http://soyface.illinois.edu). The University also offers exceptional research support services including...
the Roy J. Carver Biotechnology Center (http://www.biotech.illinois.edu), service laboratories in the Institute for Genomic Biology (http://www.igb.illinois.edu/facilities-services), the Beckman Institute (http://www.beckman.illinois.edu) and the University Library (http://www.library.illinois.edu), one of the world’s largest.

**Financial Aid**

Fellowships, teaching assistantships, and research assistantships are available for qualified MS and PhD students in Plant Biology. Fellowships in these programs are awarded on a competitive basis.

for the degree of Master of Science in Plant Biology

**Thesis Option**

Plant Biology Thesis option: The requirement of a thesis for the M.S. degree in Plant Biology is determined in consultation with the candidate’s adviser. The program is normally completed within two years. Candidates are expected to complete at least 32 semester hours of graduate coursework and research agreed upon with a faculty adviser.

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Course hours distributed among three of the following areas:</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>anatomy, biochemistry, development, ecology, evolution, genetics,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>molecular biology, physiology, and systematics (4 of these hours</td>
<td></td>
</tr>
<tr>
<td></td>
<td>must be outside the immediate research interests of the student)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Electives in consultation with and by permission of advisor</td>
<td>12-20</td>
</tr>
<tr>
<td>Pbio 599</td>
<td>Thesis Research (8 max applied toward degree)</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Total Hours</strong></td>
<td><strong>32</strong></td>
</tr>
</tbody>
</table>

**Other Requirements**

Other requirements may overlap

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum 500-level Hours Required Overall:</td>
<td>12</td>
</tr>
<tr>
<td>Minimum GPA:</td>
<td>3.0</td>
</tr>
</tbody>
</table>

For additional details and requirements, please refer to the Plant Biology Department’s online Graduate Handbook (http://www.life.illinois.edu/plantbio/gradhandbook.htm) and the University’s Graduate College Handbook (http://www.grad.illinois.edu/gradhandbook).

**Non-Thesis Option**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Course hours distributed among three of the following areas:</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>anatomy, biochemistry, development, ecology, evolution, genetics,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>molecular biology, physiology, and systematics (4 of these hours</td>
<td></td>
</tr>
<tr>
<td></td>
<td>must be outside the immediate research interests of the student)</td>
<td></td>
</tr>
<tr>
<td>IB 590</td>
<td>Individual Topics (8 max applied toward degree)</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Electives in consultation with and by permission of advisor</td>
<td>12-20</td>
</tr>
<tr>
<td></td>
<td><strong>Total Hours</strong></td>
<td><strong>32</strong></td>
</tr>
</tbody>
</table>

Information listed in this catalog is current as of 03/2020