Germs of specialization within the department include:

- integrative:
- The Department teaches and conducts research in basic plant biology. Its
- program opportunities/cellmolecular.html

Molecular Biology Training Program

- participate, during their degree programs, in several non-degree granting
- degree. It also participates in an interdepartmental programs leading to
- Science Master’s (PSM) concentration 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
- (http://neuroscience.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
- biochemical
- physiological
- ecological approaches

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

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
respond 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. Admission into the Plant
Biotechnology PSM concentration is based on the applicant's academic
achievement and expressed interest in non-academic careers that blend
science and business. 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 required; however no minimum scores are
specified for admission. An advanced subject test is recommended.
International students should have a Test of English as a Foreign
Language (TOEFL) score of 600 or above on the paper-based test, or
250 or above on the computer-based test (cBT) or 102 or above on the
internet-based test (iBT).

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.

- Master of Science in Plant Biology (http://catalog.illinois.edu/
gegraduate/graduate-majors/plant-bio/ms-plant-biol)
Doctor of Philosophy in Plant Biology

Candidates for the Ph.D. are expected to complete a minimum of 96 hours of graduate coursework and research. A formal evaluation (the Two-Year Review) of the student's academic progress is made prior to the end of the second year of study (end of Stage I). Departmental approval must be obtained at this juncture in order to continue in the graduate program. A Preliminary Examination is taken during the second year (if the student entered with an M.S. degree) or the third year (if the student entered with a B.S. degree) (end of Stage 2). This consists of an oral examination of general knowledge in three of nine broadly-defined areas of plant biology and defense of a written research proposal on the thesis research topic prepared by the student. Experience in teaching is considered a vital part of the graduate program and is required as part of the academic work of all Ph.D. candidates. The final stage (Stage 3) of the program consists of preparing an acceptable thesis based on independent research designed in consultation with a faculty advisor and approved by a graduate faculty thesis committee. A final oral examination, in which the student defends the thesis, a public seminar, and deposit of an approved thesis complete the program. The Ph.D. degree program is expected to be completed within five years. See the Plant Biology Department's online Graduate Student Handbook (http://www.life.illinois.edu/plantbio/gradhandbook.htm) for a detailed description of the Stages and Requirements of the Ph.D. program.

Entering with approved M.S./M.A. degree

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<th>Title</th>
<th>Hours</th>
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<tr>
<td>PBIO 599</td>
<td>Thesis Research (no max applied toward degree)</td>
<td>64</td>
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Total Hours 96

Other Requirements

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<td>Teaching:</td>
<td>at least the equivalent of one semester as a half-time teaching assistant</td>
</tr>
<tr>
<td>Masters Degree Required or Admission to Ph.D.?</td>
<td>No, but Masters level requirements (32 hours minimum) must be met in order to enter State 2 of Ph.D. program.</td>
</tr>
<tr>
<td>Preliminary Exam Required:</td>
<td>Yes, at the end of State 2, in order to enter Stage 3</td>
</tr>
<tr>
<td>Final Exam/Dissertation Defense Required:</td>
<td>Yes, at end of Stage 3</td>
</tr>
<tr>
<td>Dissertation Deposit Required:</td>
<td>Yes, at end of Stage 3</td>
</tr>
<tr>
<td>Minimum GPA:</td>
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1 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).

Entering with approved B.S./B.A. degree

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<td>PBIO 599</td>
<td>Thesis Research (no max applied toward degree)</td>
<td>96</td>
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</tbody>
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Other Requirements

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<th>Requirement</th>
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<tr>
<td>Teaching:</td>
<td>at least the equivalent of one semester as a half-time teaching assistant</td>
</tr>
<tr>
<td>Masters Degree Required or Admission to Ph.D.?</td>
<td>No, but Masters level requirements (32 hours minimum) must be met in order to enter State 2 of Ph.D. program.</td>
</tr>
<tr>
<td>Preliminary Exam Required:</td>
<td>Yes, at the end of State 2, in order to enter Stage 3</td>
</tr>
<tr>
<td>Final Exam/Dissertation Defense Required:</td>
<td>Yes, at end of Stage 3</td>
</tr>
<tr>
<td>Dissertation Deposit Required:</td>
<td>Yes, at end of Stage 3</td>
</tr>
<tr>
<td>Minimum GPA:</td>
<td>3.0</td>
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</tbody>
</table>

1 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).