BIOLOGICAL SCIENCES -
BOTANY - PH.D.

Examples of Possible Careers*

Biological science teachers, postsecondary
- 9.3% much faster than the average
- 64,700 number of jobs
- $85,600 potential earnings

Biological scientists, all other
- 2.2% slower than the average
- 44,700 number of jobs
- $85,290 potential earnings

Natural sciences managers
- 4.8% about as fast as the average
- 71,400 number of jobs
- $137,940 potential earnings

Soil and plant scientists
- 6.8% faster than the average
- 17,800 number of jobs
- $66,120 potential earnings

Contact Information
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  330-672-3849

Admission to the Biological Sciences–Botany major has been temporarily suspended as of fall 2017.

Fully Offered
- Kent Campus

*Note
Source of occupation titles and labor data is from the U.S. Bureau of Labor Statistics' Occupational Outlook Handbook. Data comprises projected percent change in employment over the next 10 years; nation-wide employment numbers; and the yearly median wage at which half of the workers in the occupation earned more than that amount and half earned less.

Description
Admission to the Ph.D. degree in Biological Sciences–Botany has been temporarily suspended as of fall 2017.
The Ph.D. degree in Biological Sciences-Botany offers research in plant systematics, taxonomy, evolutionary studies, molecular biology, ecology and genetics. The program provides a broad background in botanical sciences and training in research. Graduate students in botany are encouraged to become familiar with cognate disciplines that will enhance their scholarship and research potential; these include biometry, biochemistry, geology, geography and relevant foreign languages.

Admission Requirements
- Bachelor's degree, or higher, from an accredited college or university for unconditional admission
- Undergraduate coursework roughly equivalent to a Biology minor
- Minimum 3.000 GPA on a 4.000 point scale for unconditional admission
- Official transcript(s)
- GRE scores (general test)
- Goal statement
- Three letters of recommendation
- Acceptance of the student by a faculty advisor
- A list of up to five potential faculty advisors
- English language proficiency - all international students must provide proof of English language proficiency (unless they meet specific exceptions) by earning one of the following:
  - Minimum 587 TOEFL PBT score (paper-based version)
  - Minimum 94 TOEFL IBT score (Internet-based version)
  - Minimum 82 MELAB score
  - Minimum 7.0 IELTS score
  - Minimum 65 PTE score
  - Minimum 120 Duolingo English Test score

For more information about graduate admissions, please visit the Graduate Studies admission website. For more information on international admission, visit the Office of Global Education’s admission website.

Program Learning Outcomes
Graduates of this program will be able to:
1. Understand advanced biological concepts beyond the scope of the typical undergraduate degree and increase the depth of their knowledge through coursework and hands-on experiences.
2. Apply scientific principles and appreciate work outside of their particular field.
3. Effectively communicate about science with colleagues as well as those outside of their area of expertise.
4. Develop the necessary laboratory skills that will allow testing of hypotheses.

Program Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>BSCI 70184</td>
<td>RESPONSIBLE CONDUCT IN RESEARCH AND TEACHING-BIOLOGICAL SCIENCES ¹</td>
<td>0-2</td>
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<tr>
<td>BSCI 70370</td>
<td>ECOLOGICAL AND EVOLUTIONARY GENETICS</td>
<td>2</td>
</tr>
<tr>
<td>BSCI 70371</td>
<td>EVOLUTIONARY BIOLOGY</td>
<td>2</td>
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<tr>
<td>BSCI 70372</td>
<td>COMMUNITIES AND ECOSYSTEMS</td>
<td>2</td>
</tr>
<tr>
<td>BSCI 80199</td>
<td>DISSERTATION I ²</td>
<td>30</td>
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</tbody>
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Additional Electives

For more information about graduate admissions, please visit the Graduate Studies admission website. For more information on international admission, visit the Office of Global Education’s admission website.
Students who will serve as teaching assistants are required to take BSCI 70184 their first semester (or the following fall semester for those starting their studies in spring semester). Students who are not teaching assistants do not have to take the course; however, they must complete an additional 2 credit hours of additional coursework to meet the minimum credit hours to graduate.

Each doctoral candidate, upon admission to candidacy, must register for BSCI 80199 for a total of 30 credit hours. It is expected that a doctoral candidate will continuously register for Dissertation I, and thereafter BSCI 80299, each semester, until all requirements for the degree have been met.

Candidacy for the Degree
After completing the required coursework, students complete the doctoral program by being admitted to candidacy, by proposing a research project to the faculty, and by completing and defending that research with a written dissertation before a faculty committee.

Candidacy Exams: The student is admitted to doctoral candidacy following successful completion of both written and oral candidacy examinations. These exams are based on prior coursework and coursework taken in this graduate program as determined by the student's academic Guidance Committee, which must consist of at least three eligible faculty members. The advisor(s) and a majority of members of the Guidance Committee must be members of the appropriate graduate program. This committee is responsible for determining the student's academic curriculum and for administering the candidacy exams. Following successful completion of candidacy exams, the student registers for dissertation - BSCI 80199 for two semesters and, thereafter, for BSCI 80299 continually until complete.

Prospectus: Following completion of the candidacy exam, the doctoral student must successfully prepare, present and defend a formal prospectus of the research project before his or her dissertation committee.

Dissertation and Final Defense: The doctoral candidate must complete a dissertation. It is expected that the candidate will present the results of her or his research in a defense open to students and faculty, at which the dissertation will be presented and defended before the dissertation committee, with not more than one negative vote, in order to be recommended to the department and College of Arts and Sciences for degree conferral.