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 the student's area of expertise.

4. Develop the necessary laboratory skills that will allow testing of hypotheses.

**Program Learning Outcomes**

**Graduate Studies website.** For more information about graduate admissions, please visit the website of the ecology program who will serve as the advisor.

A prospective student must be accepted by a faculty member in the first year of graduate study. Before admission can be completed, a student must be a member of the appropriate graduate program. This committee, which must consist of at least three eligible faculty members, is responsible for determining the students' academic curriculum and for administering the candidacy exams.

The Ph.D. degree in Biological Sciences—Ecology provides opportunities to study in areas such as animal behavior, entomology, limnology, microbial ecology, ornithology, systems ecology, systematic and evolutionary biology, environmental physiology, vertebrate ecology and population and community ecology. Although courses of study are tailored to students' interests and needs, the program for all students normally includes training in population, community, ecosystems and evolutionary ecology and statistical theory. Because of the interdisciplinary nature of ecology, students are encouraged to take courses in geology, mathematics, chemistry and other disciplines.

**FULLY OFFERED AT:**

- Kent Campus

**Admission Requirements**

- Official transcript(s)
- GRE scores
- Goal statement
- Three letters of recommendation
- A list of up to five potential faculty advisors
- Baccalaureate and a strong background in biology and related subjects such as chemistry and mathematics

**English Language Proficiency Requirements for International Students:** All international students must provide proof of English language proficiency (unless they meet specific exceptions) by earning a minimum 587 TOEFL score (94 on the Internet-based version), minimum 82 MELAB score, minimum 7.0 IELTS score or minimum 65 PTE Academic score. For more information on international admission, visit the Office of Global Education's admission website. Effective spring 2018.

Deficiencies at the time of admission shall be rectified during the first year of graduate study. Before admission can be completed, a prospective student must be accepted by a faculty member in the ecology program who will serve as the advisor.

For more information about graduate admissions, please visit the Graduate Studies website.

**Program Learning Outcomes**

Graduates of this program will be able to:

**Major Requirements**

[AS-PHD-ECOL]

<table>
<thead>
<tr>
<th>Major Requirements</th>
<th>Minimum Total Credit Hours for Post-Baccalaureate Students</th>
<th>Minimum Total Credit Hours for Post-Master's Students</th>
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<tbody>
<tr>
<td>BSCI 70184</td>
<td>RESPONSIBLE CONDUCT IN RESEARCH AND</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TEACHING-BIOLOGICAL SCIENCES ¹</td>
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</tr>
<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 70373</td>
<td>POPULATION AND COMMUNITY ECOLOGY</td>
<td>2</td>
</tr>
<tr>
<td>BSCI 70391</td>
<td>SEMINAR IN ECOLOGY</td>
<td>1</td>
</tr>
<tr>
<td>BSCI 80199</td>
<td>DISSERTATION I</td>
<td>30</td>
</tr>
<tr>
<td>Additional Requirements ² ³</td>
<td>20-52</td>
<td></td>
</tr>
<tr>
<td>Departmental Seminar Presented by Student ⁴</td>
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</tbody>
</table>

1. 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).

2. Students are required to enroll in BSCI 70391 every semester until they have passed their Candidacy exam.

3. 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, including summer, until all requirements for the degree have been met. It is expected that candidates will present the results of their research in a defense open to students and faculty, at which the dissertation will be presented an defended before the dissertation committee, with not more than one negative vote, in order to be recommended to the Department of Biological Sciences and the College of Arts and Sciences for degree conferral.

4. Students are required to present at least one departmental seminar about their research.

**Candidacy**

Students are 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 students' 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 students’ academic curriculum and for administering the candidacy exams.