BIOLOGICAL SCIENCES - CELL BIOLOGY - M.S.

Description

The Master of Science degree in Biological Sciences–Cell Biology is an individualized program of study and research that prepares students for career opportunities in teaching and research in academic, governmental and industrial settings. A core series of courses sets a rigorous foundation in theory, experimental design and technical knowledge of contemporary investigations at the cellular level of organization. Areas of research include developmental biology, cellular and developmental neuroscience, immunology, reproductive biology, cellular endocrinology and molecular genetics.

FULLY OFFERED AT:

• Kent Campus

Admission Requirements

• Official transcript(s)
• Minimum 3.0 undergraduate GPA
• GRE scores (general test)
• Goal statement
• Three letters of recommendation
• A list of up to five potential faculty advisors
• Completion of undergraduate coursework roughly equivalent to a Biology minor

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.

Before admission can be completed, a prospective student must be accepted by a faculty member in the program who will act as advisor. For more information about graduate admissions, please visit the Graduate Studies 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 the student’s area of expertise.
4. Develop the necessary laboratory skills that will allow testing of hypotheses.

Program Requirements

Major Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BSCI 60184</td>
<td>RESPONSIBLE CONDUCT IN RESEARCH AND TEACHING</td>
<td>0-2</td>
</tr>
<tr>
<td></td>
<td>BIOLOGICAL SCIENCES</td>
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<tr>
<td>BSCI 60199</td>
<td>THESIS I</td>
<td>2-6</td>
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<tr>
<td>BSCI 60491</td>
<td>SEMINAR IN PHYSIOLOGY</td>
<td>1</td>
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<tr>
<td></td>
<td>Courses selected in consultation with academic</td>
<td>14-25</td>
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<tr>
<td></td>
<td>faculty advisor</td>
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<tr>
<td>Departmental Seminar Presented by Student</td>
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Minimum Total Credit Hours: 32

1. Students who will serve as teaching assistants are required to take BSCI 60184 their first semester (or the following fall semester for those starting their studies in spring semester).
2. After completing 6 credit hours of BSCI 60199, students must register continually for BSCI 60299 until the degree is earned. Students begin research by successfully preparing, presenting and defending a formal prospectus for their research project to their committee. For the thesis and final defense, it is expected that students will present the results of their study in a defense open to students and faculty. The thesis must be presented and defended before the Guidance 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.

3. Students must enroll in BSCI 60491 each semester (repeatable for credit).
4. Students must take at least one course in each of the following areas: cell biology/molecular biology (such as Eukaryotic Cell Biology) and biochemistry (such as Bioenergetics). Students are required to enroll in at least one graduate level statistics course. Students must complete the required OSHA Training Session prior to working with radioactive materials. Students should enroll in additional courses that provide necessary skills for completion of research projects and that will be beneficial for their professional development. Students with coursework deficits in curricula of prior degrees should enroll in appropriate graduate-level courses (permission must be obtained from the department to enroll in undergraduate-level courses).

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