

# BIOLOGICAL SCIENCES - INTEGRATIVE PHYSIOLOGY AND NEUROBIOLOGY - M.S.

College of Arts and Sciences  
Department of Biological Sciences  
www.kent.edu/biology/graduate

## About This Program

The Master of Science degree in Biological Sciences - Integrative Physiology and Neurobiology is the study of a broad range of topics, including endocrinology, neuroscience, immunology, reproductive biology and other regulatory systems. Students have access to resources for physiological research, including a vivarium, tissue culture facility, confocal microscope/visualization facility, laser capture microscope, genomics and proteomics facilities.

## Contact Information

- Program Coordinator: **Oscar Rocha** | bscigrad@kent.edu | 330-672-2297
- Connect with an Admissions Counselor: U.S. Student | International Student

## Program Delivery

- **Delivery:**
  - In person
- **Location:**
  - Kent Campus

## Examples of Possible Careers and Salaries\*

### Biological scientists, all other

- 2.2% slower than the average
- 44,700 number of jobs
- \$85,290 potential earnings

### Biological technicians

- 4.9% about as fast as the average
- 87,500 number of jobs
- \$46,340 potential earnings

### Biological science teachers, postsecondary

- 9.3% much faster than the average
- 64,700 number of jobs
- \$85,600 potential earnings

### Medical scientists, except epidemiologists

- 6.1% faster than the average
- 138,300 number of jobs
- \$91,510 potential earnings

\* Source of occupation titles and labor data comes 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.

For more information about graduate admissions, visit the graduate admission website. For more information on international admissions, visit the international admission website.

## Admission Requirements

- Bachelor's degree from an accredited college or university
- Undergraduate coursework roughly equivalent to a Biology minor
- Minimum 2.750 GPA on a 4.000-point scale
- Official transcript(s) - copies of official transcripts can be submitted for initial review of application
- Résumé or curriculum vitae
- Personal statement that clearly explains why the applicant wishes to pursue an advanced degree and describes research experience and interest; statement must include a list of potential faculty mentors
- Three letters of recommendation that comment on chance of success in an advanced degree program, with minimum one from someone who can comment on research aptitude
- 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

## Application Deadlines

- **Fall Semester**
  - Priority deadline: December 1  
*Applications submitted by this deadline will receive the strongest consideration for admission.*

## Program Requirements

Code	Title	Credit Hours
<b>Major Requirements</b>		
BSCI 60104	BIOLOGICAL STATISTICS <sup>1</sup>	4
BSCI 60184	RESPONSIBLE CONDUCT IN RESEARCH AND TEACHING-BIOLOGICAL SCIENCES <sup>2</sup>	2
BSCI 60191	SEMINAR IN BIOLOGY (taken 2-4 times)	2-4
Major Electives <sup>3</sup>		16-18
Student Seminar Presentation <sup>4</sup>		
<i>Culminating Requirement</i>		
BSCI 60199	THESIS I <sup>5</sup>	6
<b>Minimum Total Credit Hours:</b>		<b>32</b>

<sup>1</sup> Students may substitute a different graduate-level statistics course for BSCI 60104 if deemed appropriate by the students' advisor/guidance committee.

- <sup>2</sup> Students are required to take BSCI 60184 their first semester (or the following fall semester for those starting their studies in the spring semester).
- <sup>3</sup> Students are to select courses in consultation with their academic faculty advisor. It is recommended that students enroll in BSCI 50142 and BSCI 50195 for selected current topics. Additional coursework should provide the necessary skills and/or knowledge base to aid in the completion of the student's research project and be beneficial for their professional development.
- <sup>4</sup> Students are required to present at least one departmental seminar about their research.
- <sup>5</sup> 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.

## Graduation Requirements

Students must complete a minimum 14 credit hours of graduate courses beyond BSCI 60198 toward their degree.

## 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.