

# BIOMEDICAL SCIENCES - NEUROSCIENCES - PH.D.

College of Arts and Sciences  
School of Biomedical Sciences  
www.kent.edu/biomedical

## About This Program

The Ph.D. in Biomedical Sciences-Neurosciences program is designed to help you develop the skills and knowledge needed to make groundbreaking discoveries in neuroscience research. With a focus on hands-on experience and collaboration, you'll have opportunities to work with experienced researchers in state-of-the-art facilities, advancing your understanding of the human brain and preparing you for a fulfilling career in academia or industry. Read more...

## Contact Information

- Director: **John Johnson** | BMS@kent.edu | 330-672-3849
- Connect with an Admissions Counselor: U.S. Student | International Student

## Program Delivery

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

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 or higher from an accredited college or university
- Minimum 2.750 undergraduate GPA on a 4.000-point scale
- Sufficient academic background to complete graduate coursework in neuroscience (recommended courses in cell biology, genetics, biopsychology and/or neuroscience)
- Curriculum vitae/résumé is required starting with the fall 2024 admission term
- Official transcript(s)
- Goal statement indicating the applicant's interests in neuroscience, their research experience and career aspirations
- Three letters of recommendation
- 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 600 TOEFL PBT score
  - Minimum 100 TOEFL IBT score
  - Minimum 85 MELAB score
  - Minimum 7.0 IELTS score
  - Minimum 68 PTE score
  - Minimum 120 Duolingo English score

## Application Deadlines

- **Fall Semester**
  - Application deadline: December 1

Applications submitted after this deadline will be considered on a space-available basis.

## Program Requirements

### Major Requirements

Code	Title	Credit Hours
<b>Major Requirements</b>		
BMS 70120	LABORATORY TECHNIQUES IN BIOMEDICAL SCIENCES (taken twice)	4
BMS 70462	NEUROBIOLOGY: SYSTEMS AND BEHAVIOR	4
BMS 70729	CELLULAR AND MOLECULAR NEUROSCIENCE	4
BMS 71000	RESPONSIBLE CONDUCT OF RESEARCH	1
BMS 71001	INTRODUCTION TO BIOMEDICAL SCIENCES	1
BMS 78637	BIOANTHROPOLOGICAL DATA ANALYSIS I	3-5
or BSCI 70104	BIOLOGICAL STATISTICS	
or PSYC 71651	QUANTITATIVE STATISTICAL ANALYSIS I	
Electives <sup>1</sup>		11-13
<i>Culminating Requirement</i>		
BMS 80199	DISSERTATION I <sup>2</sup>	30
<b>Minimum Total Credit Hours for Post-Baccalaureate Students:</b>		<b>90</b>
<b>Minimum Total Credit Hours for Post-Master's Students:</b>		<b>60</b>

<sup>1</sup> Elective courses and research must be approved by the student's guidance committee.

<sup>2</sup> Upon completion of course requirements and candidacy exam, doctoral students must register for BMS 80199 for two semesters for a total of 30 credit hours. Thereafter, it is expected that a doctoral candidate will continuously register for BMS 80299 each semester until all requirements for the degree have been met. As soon after completion of candidacy examination as possible, the dissertation committee will be established, consisting of the guidance committee and an outside discipline member – a graduate faculty member from another department at Kent State University or another program of the School of Biomedical Sciences. Students will submit to this committee their prospectus for the dissertation. The format of the prospectus will parallel that utilized for NIH grant proposals (without biographical, budget and facilities information). The dissertation committee may elect to examine the candidate on the proposal and may accept it as submitted or reject it with specific reasons and recommendations for reformulation.

## Graduation Requirements

Post-baccalaureate students must complete a minimum 60 credit hours, and post-master's students a minimum 30 credit hours, of coursework prior to dissertation.

## Program Learning Outcomes

Graduates of this program will be able to:

1. Publish their research in peer-reviewed journals.
2. Demonstrate the ability to teach undergraduate students.
3. Seek employment in fields that reflect their area of training.

## Full Description

The Ph.D. degree in Biomedical Sciences–Neurosciences is offered in consortium with the Cleveland Clinic and Northeast Ohio Medical University (NEOMED). The program allows students to complete research projects under the guidance of a neuroscience faculty member at Kent State and faculty at the other two institutions.

Students complete a common set of core courses that cover fundamental principles in neuroscience, from the cellular/molecular to the systems level. Students also complete elective courses tailored to their chosen subdiscipline. Areas of research focus on the neurosciences include behavioral neuroscience, sensory neuroscience, developmental neuroscience and neurodegenerative diseases.