

BIOMEDICAL SCIENCES - PHYSIOLOGY INTERDISCIPLINARY - PH.D.

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

Contact Information

- Program Coordinator: **Lique Coolen** | jcoolen@kent.edu | 330-672-8973
- **Eric Mintz** | emintz@kent.edu | 330-672-8025
- Chat with an Admissions Counselor

Fully Offered

- Kent Campus

Admission Terms

- Fall

Description

The Ph.D. degree in Biomedical Sciences–Physiology Interdisciplinary prepares graduates in areas that include cardiovascular, pulmonary, endocrine and neuroendocrine, reproductive or exercise physiology. In this context, emphasis is placed on an integrative approach for both research and graduate education. As with other program areas, the physiology program takes advantage of the latest molecular and cellular techniques to address questions related to human diseases.

Faculty members are drawn from various departments at Kent State University, Northeast Ohio Medical University (NEOMED) and the Lerner Research Institute of the Cleveland Clinic. Although graduate work may be completed in any of the various research areas, faculty are listed in two general specializations: (1) environmental and comparative physiology and (2) cardiopulmonary and exercise physiology. Each specialization addresses different subject areas of physiology and each has an associated training faculty. The degree program is research oriented and designed to provide students with a thorough grounding in physiological principles and techniques within several well-defined focus areas.

The Ph.D. degree in Biomedical Sciences–Physiology is offered in consortium with Cleveland Clinic and Northeast Ohio Medical University.

Admission Requirements

- Master's degree from an accredited college or university¹ for unconditional admission
- Minimum 3.000 undergraduate GPA on a 4.000 point scale for unconditional admission
- Official transcript(s)
- GRE scores
- Goal statement
- 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 (paper-based version)
 - Minimum 100 TOEFL IBT score (Internet-based version)
 - Minimum 85 MELAB score
 - Minimum 7.0 IELTS score
 - Minimum 68 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.

- ¹ Students without a master's degree may be permitted direct matriculation to the doctoral program following completion of no less than 20 credit hours of graduate coursework (including the core) and with the recommendation of the student's guidance committee and the school director. Normally, a student is admitted to the master's program prior to doctoral work, but a student holding only a baccalaureate may be admitted directly into the doctoral program in exceptional cases.

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 after graduation in fields that reflect their area of training.

Program Requirements

Major Requirements

Code	Title	Credit Hours
Major Requirements		
BMS 80199	DISSERTATION I ¹	30
CHEM 50245	BIOCHEMICAL FOUNDATIONS OF MEDICINE	4
Physiology Electives, choose from the following:		6-7
BMS 70450	MEDICAL PHYSIOLOGY II	
BSCI 70433 & BSCI 70434	MAMMALIAN PHYSIOLOGY I and MAMMALIAN PHYSIOLOGY II	
Research Methods, choose from the following:		3-9
EXPH 73050 & EXPH 73051	RESEARCH PROCESSES IN ATHLETIC TRAINING AND EXERCISE PHYSIOLOGY and QUANTITATIVE AND RESEARCH METHODS IN ATHLETIC TRAINING AND EXERCISE PHYSIOLOGY	
PSYC 71651	QUANTITATIVE STATISTICAL ANALYSIS I ²	
Neuroscience or Exercise Physiology Electives, choose from the following:		4-6
BMS 70729	CELLULAR AND MOLECULAR NEUROSCIENCE ²	
EXPH 75081 & EXPH 75082	ENERGY METABOLISM AND BODY COMPOSITION and CARDIO-RESPIRATORY FUNCTION	
Electives Approved by Advisory Committee		4-13
Minimum Total Credit Hours:		60

¹ Each doctoral candidate, upon admission to candidacy, must register for BMS 80199 for a total of 30 credit hours. It is expected that a doctoral candidate will continuously register for Dissertation I, and thereafter BMS 80299, each semester, until all requirements for the degree have been met.

² Students who select PSYC 71651 and/or BMS 70729 should expect to take additional electives to meet the minimum 60 credit hours for the degree.