BIOMEDICAL SCIENCES - PHYSIOLOGY INTERDISCIPLINARY - PH.D.

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

About This Program

The Ph.D. degree in Biomedical Sciences–Physiology Interdisciplinary offers a comprehensive education of physiology, anatomy and related fields, preparing you to become a leader in industry, government or academia. With a focus on hands-on experience and collaboration, you will have the opportunity to work with experienced researchers in state-of-the-art facilities, advancing your understanding of human physiology and preparing you for a fulfilling career in this exciting field. Read more...

Contact Information

- **John Johnson** | BMS@kent.edu | 330-672-3849
- Connect with an Admissions Counselor

Program Delivery

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

Applications to the Ph.D. in Biomedical Sciences-Physiology Interdisciplinary are not being accepted at this time.

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

Admission Requirements

Applications to the Ph.D. in Biomedical Sciences-Physiology Interdisciplinary are not being accepted at this time.

- Bachelor's degree or higher from an accredited college or university
- Minimum 2.750 undergraduate GPA on a 4.000-point scale
- Official transcript(s)
- Résumé or curriculum vitae
- Goal statement that includes a description of the applicant's research experience, research interests and career goals
- Three letters of recommendation
- English language proficiency - all international students must provide proof of English language proficiency (unless they meet specific exceptions to waive) by earning one of the following:[1]
  - Minimum 94 TOEFL iBT score
  - Minimum 7.0 IELTS score
  - Minimum 65 PTE score
  - Minimum 120 DET score

[1] International applicants who do not meet the above test scores will not be considered for admission.

Program Requirements

Major Requirements

Code	Title	Credit Hours
Major Requirements		
BMS 70120	LABORATORY TECHNIQUES IN BIOMEDICAL SCIENCES (taken twice)	4
BMS 71000	RESPONSIBLE CONDUCT OF RESEARCH	1
BMS 71001	INTRODUCTION TO BIOMEDICAL SCIENCES	1
CHEM 50245	BIOCHEMICAL FOUNDATIONS OF MEDICINE	4
Biostatistical Analysis	Elective, choose from the following:	3-6
BMS 78637	BIOANTHROPOLOGICAL DATA ANALYSIS I	
BSCI 70104	BIOLOGICAL STATISTICS	
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	
Neuroscience or Exercise Physiology Electives, choose from the following:		4-6
BMS 70729	CELLULAR AND MOLECULAR NEUROSCIENCE	
BSCI 70460 & BSCI 70462	ADVANCED HUMAN PHYSIOLOGY and ADVANCED HUMAN PHYSIOLOGY: READINGS AND CASE STUDIES	
EXPH 75081 & EXPH 75082	ENERGY METABOLISM AND BODY COMPOSITION and CARDIO-RESPIRATORY FUNCTION	
Electives [1]		8-13
Culminating Requirement		
BMS 80199	DISSERTATION I [2]	30
Minimum Total Credit Hours for Post-Baccalaureate Students:		**90**
Minimum Total Credit Hours for Post-Master's Students:		**60**

[1] Elective courses and research must be approved by the student's guidance committee.

[2] 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. The student 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

Minimum Major GPA	Minimum Overall GPA
-	3.000

- 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–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.

The Ph.D. degree is offered in consortium with Cleveland Clinic and Northeast Ohio Medical University. Faculty members are drawn from various departments at Kent State and the other two institutions. 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.