Human Physiology (PhD)

Our PhD program provides classroom and research experiences, helping students grow into professionals equipped with the experience to be great researchers. Providing students with an in-depth understanding of human physiology and advanced research skills is our hallmark. Our department houses state-of-the-art equipment, furthering our understanding of the physiological process.

Program Learning Outcomes

Upon successful completion of this program, students will be able to:

- Teaching and Mentoring: Demonstrate working knowledge of current teaching and mentoring best-practices.
- Professional Ethics: Demonstrate knowledge of ethical and professional behavior related to academic and research integrity.
- Career Development: Demonstrate proactive career planning and goal setting and participation in professional development activities.
- Core Knowledge: Demonstrate broad working knowledge of content areas and detailed knowledge of a primary content area.
- Scientific Inquiry: Demonstrate fluency in the scientific literature, current questions, and research methods in a primary content area.
- Scientific Communication: Demonstrate effective oral and written scientific communication skills, including data presentation.

Key:

Program Learning Outcome

I = introduces outcome; D = develops outcome; A = assesses mastery of outcome

Listed course or activity

Teaching and Mentoring

HPHY 611 Professional Skills I: Teaching Effectiveness I/D

Professional Ethics

HPHY 612 Professional Skills II: Responsible Research I/D

Career Development

HPHY 613 Professional Skills III: Career Development I/D

Core Knowledge

500-level capstone electives I/D/A

HPHY 621-623 Systems Physiology Series I/D/A

600-level Advanced Electives D/A

Comprehensive Exam A

Scientific Inquiry

HPHY 621-623 Systems Physiology Series I/D

Two required statistical courses I/D/A

600-level Advanced Electives D/A

Comprehensive Exam A

Dissertation Proposal D

Dissertation Defense A

Scientific Communication

HPHY 621-623 Systems Physiology Series D

Two required statistical courses I/D/A

600-level Advanced Electives D/A

Comprehensive Exam A

Dissertation Proposal D

Dissertation Defense A

Doctor of Philosophy Degree Requirements

Code	Title	Credits
HPHY 611 & HPHY 612 & HPHY 613	Professional Skills I: Effective Teaching and Professional Skills II: Responsible Research and Professional Skills III: Career Development	3
HPHY 621 & HPHY 622 & HPHY 623	Systems Physiology I and Systems Physiology II and Systems Physiology III	12
EDUC 614	Educational Statistics [1]	3
EDUC 640	Applied Statistical Design and Analysis [1]	3
Human physiology courses or other courses most appropriate to student's line of study [2]		38
Select one of the following:		4
HPHY 670	Advanced Respiratory Physiology	
HPHY 676	Human Cardiovascular Control	
HPHY 684	Kinematics of Human Movement	
HPHY 685	Kinetics of Human Movement	
HPHY 603	Dissertation [3]	18
Total Credits		**81**

1. Statistical analysis courses covering the following topics: descriptive statistics, logic of hypothesis testing, elementary inferential statistics, confidence intervals, one-way analysis of variance, post hoc comparisons, a priori contrasts, within-subjects and between-subjects effects, two-way and higher-order designs, and interactions. For recent additions to these course options, check with the director of graduate studies for the department.
2. Determined in conjunction with program committee.
3. Must register for course every term of enrollment after advancing to candidacy.

The doctoral degree requires completion of a minimum of 81 graduate-level credits beyond the bachelor's degree; at least 60 of these credits must be completed through human physiology courses. Written and oral doctoral comprehensive examinations are taken after completing a substantial portion of the program of study. Upon passing these examinations, the student is advanced to candidacy. A final oral defense is held after completion of the dissertation and after all other degree

requirements have been met. Required courses must be taken for letter grades and passed with grades of B– or better. Students must maintain at least a 3.00 grade point average for all courses. Additional university doctor of philosophy degree requirements are described under Doctoral Degrees in the **Division of Graduate Studies** section of this catalog