



# Exercise Science

## Doctor of Philosophy Degree Concentration

The focus of the exercise science doctoral concentration is the scientific study of how biological systems function during physical activity, exercise, and sport, emphasizing applications to both clinical and healthy populations. The program is intended for students who desire teaching and/or research careers in higher education, industry, or other research institutions.

### **DOCTORAL SEMINAR (3 credit hours)**

KI 8913 Doctoral Seminar in Exercise Science

### **DEPARTMENTAL COGNATE (select 12 credit hours)**

EP 8203 Advanced Exercise Physiology  
EP 8243 Cardiorespiratory Exercise Physiology  
EP 8253 Doping and Supplement Use in Sport  
EP 8263 Exercise Biochemistry  
EP 8283 Environmental Exercise Physiology  
EP 8323 Science and Practice in Cardiopulmonary Rehabilitation  
EP 8423 Graded Exercise Testing  
EP 8443 Neuromuscular Mechanisms in Exercise  
EP 8453 Biomechanics of Human Movement  
EP 8503 Occupational Physiology

### **OUTSIDE COGNATE (9 credit hours)**

Students choose a cognate field of study from an appropriate discipline outside of the Department of Kinesiology. Choice of courses must be approved by the student's supervisory committee. Students may elect to take 3 additional credit hours to fulfill the requirement for a minor in a specific area (12 credit hours are required for a doctoral minor).

### **RESEARCH METHODS & STATISTICS (select 12 credit hours)**

ST 6213 Nonparametric Methods  
ST 8114 Statistical Methods  
ST 8214 Design and Analysis of Experiments  
ST 8253 Regression Analysis  
ST 8313 Introduction to Survey Sampling  
ST 8853 Advanced Design of Experiments I  
ST 8863 Advanced Design of Experiments II

### **DIRECTED RESEARCH (24 credit hours)**

KI 7000 Directed Individual Study (3 hours) – The outcome of this directed study should be a manuscript suitable for submission to a peer-reviewed journal. This manuscript must be reviewed and approved by the student's supervisory committee prior to the student beginning work on his/her dissertation.  
KI 9000 Dissertation (21 hours) – In addition to satisfying the requirements of KI 7000, a student must also successfully complete comprehensive exams prior to beginning work on his/her dissertation.

### **UNIVERSITY INSTRUCTION (3 credit hours)**

HED 8133 University and Community College Instruction

### ***63 total credit hours needed to complete degree***

\*\*It is possible to make substitutions to the PhD curriculum. Course substitutions must be approved by the student's supervisory committee.