EXERCISE PHYSIOLOGY - M.S.

College of Education Health and Human Services
School of Health Sciences
100 Nixson Hall
Kent Campus
330-672-2197
www.kent.edu/ehhs/hs

Description
The Master of Science degree in Exercise Physiology prepares graduates for a wide variety of career options, including exercise prescription and research, as well as future doctoral study. Representative faculty research includes the areas of body composition, metabolism/nutritional requirements, environment, clinical exercise physiology and the psychophysiology of aging as it is influenced by physical activity and fitness. Athletic training faculty also support the degree path with their areas of expertise in clinical and educational research in the field of athletic training.

The Exercise Physiology major includes the following optional concentration:

- The **Athletic Training** concentration is designed to serve the needs of post-certification (or certification-pending) students who wish to further their knowledge and skills in the athletic training profession while pursuing a master’s degree. Students have the opportunity to pursue advanced clinical and academic training while obtaining knowledge and skills relative to effective clinical instruction and supervision. Advanced research skills are also a critical component to this advanced track program. Opportunities to perform research independently and/or in conjunction with program faculty are widely available.

Fully Offered At:
- Kent Campus

Accreditation
Commission on Accreditation of Allied Health Education Programs

Admission Requirements
- Bachelor’s degree in exercise science, or equivalent preparation, from an accredited college or university for unconditional admission
- Minimum 3.00 undergraduate GPA on a 4.000 point scale for unconditional admission
- Official transcript(s)
- GRE or MCAT score of the 50th percentile
- Goal statement
- Two 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 550 TOEFL PBT score (paper-based version)
  - Minimum 79 TOEFL IBT score (Internet-based version)
  - Minimum 77 MELAB score
  - Minimum 6.5 IELTS score
  - Minimum 58 PTE score

Degree applicants are expected to have substantial preparation in the sciences, usually including coursework in biology, chemistry, physics, mathematics, anatomy, kinesiology and exercise physiology. 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.

Program Learning Outcomes
Graduates of this program will be able to:

1. Pass one of the American College of Sports Medicine’s (ACSM) exams: Certified Exercise Physiologist or Certified Personal Trainer.
2. Demonstrate understanding of the physiology of human movement across the lifespan.
3. Demonstrate detailed knowledge of the anatomy and physiology of the human and health and disease.
4. Demonstrate knowledge of the pathophysiology of disease, risk factors and special exercise populations, according to the American College of Sports Medicine.

Graduates of the Athletic Training concentration will be able to:

1. Apply the principles of the research process in athletic training by engaging with faculty and clinical staff in graduate research initiatives.
2. Engage health care professionals and apply the knowledge gained, through their education in both the classroom and clinical settings.
3. Engage in program improvement as part of a continuous quality improvement initiative by evaluating the effectiveness of the program through multiple evaluation resources.

Program Requirements

Major Requirements

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<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td>EXPH 63050</td>
<td>RESEARCH PROCESS IN ATHLETIC TRAINING AND EXERCISE PHYSIOLOGY</td>
<td>3</td>
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<tr>
<td>EXPH 63095</td>
<td>RESEARCH SEMINAR</td>
<td>1</td>
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Additional Requirements or Concentration

Choose from the following:
- Additional Requirements for Students Not Declaring a Concentration
- Athletic Training Concentration

Minimum Total Credit Hours: 34

Additional Requirements for Students Not Declaring a Concentration

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<thead>
<tr>
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<tr>
<td>EXPH 63051</td>
<td>QUANTITATIVE AND RESEARCH METHODS IN ATHLETIC TRAINING AND EXERCISE PHYSIOLOGY</td>
<td>3</td>
</tr>
<tr>
<td>EXPH 65081</td>
<td>ENERGY METABOLISM AND BODY COMPOSITION</td>
<td>3</td>
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</table>
EXPH 65082  CARDIO-RESPIRATORY FUNCTION  3

Thesis or Non-Thesis Option, choose from the following:  6
EXPH 63199  THESIS I
EXPH 63098 & EXPH 65192  RESEARCH
& INTERNSHIP IN EXERCISE PHYSIOLOGY
EXPH 65192  INTERNSHIP IN EXERCISE PHYSIOLOGY

Suggested Electives, choose from the following:  12
BMS 68610  HUMAN GROSS ANATOMY I
BMS 68611  HUMAN GROSS ANATOMY II
BSCI 50020  BIOLOGY OF AGING
BSCI 60431  NEUROENDOCRINOLOGY
EXPH 50612  EXERCISE LEADERSHIP FOR THE OLDER ADULT
EXPH 55065  EXERCISE TESTING
EXPH 55070  ELECTROCARDIOGRAPHY FOR THE EXERCISE PHYSIOLOGIST
EXPH 60610  PHYSIOLOGY OF AGING: IMPLICATIONS FOR HUMAN BEHAVIOR
EXPH 63098  RESEARCH
EXPH 65075  MUSCLE FUNCTION AND EXERCISE
EXPH 65080  PHYSIOLOGICAL BASIS OF EXERCISE AND SPORT
EXPH 65081  ENERGY METABOLISM AND BODY COMPOSITION
EXPH 65082  CARDIO-RESPIRATORY FUNCTION
EXPH 65083  EXERCISE ENERGY METABOLISM
EXPH 65084  CARDIOVASCULAR-RESPIRATORY DYNAMICS DURING EXERCISE
EXPH 65086  NEUROBIOLOGY OF MOVEMENT AND EXERCISE
NUTR 53513  MICRONUTRIENT NUTRITIONAL BIOCHEMISTRY
NUTR 53520  SPORTS NUTRITION

Additional Electives Chosen in Consultation with Advisor

Minimum Total Credit Hours:  27

### Athletic Training Concentration Requirements

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<tr>
<th>Code</th>
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<tr>
<td>AT 62010</td>
<td>CONTEMPORARY ISSUES IN ATHLETIC TRAINING</td>
<td>3</td>
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<tr>
<td>AT 62012</td>
<td>EDUCATION AND SUPERVISION PROCESSES IN ATHLETIC TRAINING</td>
<td>3</td>
</tr>
<tr>
<td>AT 62014</td>
<td>ADVANCED CLINICAL PROCEDURES IN ATHLETIC TRAINING AND SPORTS MEDICINE</td>
<td>3</td>
</tr>
<tr>
<td>AT 62016</td>
<td>CLINICAL INQUIRY IN ATHLETIC TRAINING</td>
<td>3</td>
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Thesis or Non-Thesis Option, choose from the following:  3-6
ATR 63199  THESIS I

Suggested Electives, choose from the following:  9-12
BMS 60450  MEDICAL PHYSIOLOGY II
BMS 68610  HUMAN GROSS ANATOMY I
BMS 68611  HUMAN GROSS ANATOMY II
BSCI 50020  BIOLOGY OF AGING
BSCI 50142  BIOENERGETICS
BSCI 50432  ENDOCRINOLOGY
BSCI 50433  MAMMALIAN PHYSIOLOGY I
BSCI 50434  MAMMALIAN PHYSIOLOGY II
BSCI 60431  NEUROENDOCRINOLOGY
CHEM 50261  PRINCIPLES OF BIOCHEMISTRY I
EXPH 50612  EXERCISE LEADERSHIP FOR THE OLDER ADULT
EXPH 55065  EXERCISE TESTING
EXPH 55070  ELECTROCARDIOGRAPHY FOR THE EXERCISE PHYSIOLOGIST

Minimum Total Credit Hours:  27

### Graduation Requirements

Only in rare instances does a student fulfill the educational and research expectations within the minimum credit-hour requirement for this degree. Any deficiencies for a doctoral academic preparation must be corrected very early in the approved academic program.