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
- Minimum 3.00 undergraduate GPA on a 4.000 point scale
- 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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<tbody>
<tr>
<td>ATTR</td>
<td>ETHICS FOR HEALTH CARE PROFESSIONALS</td>
<td>3</td>
</tr>
<tr>
<td>EXPH</td>
<td>RESEARCH PROCESS IN ATHLETIC TRAINING AND EXERCISE PHYSIOLOGY</td>
<td>3</td>
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<tr>
<td>EXPH</td>
<td>RESEARCH SEMINAR</td>
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Additional Requirements or Concentration
Choose from the following:

Additional Requirements for Students Not Declaring a Concentration

Minimum Total Credit Hours: 34

Additional Requirements for Students Not Declaring a Concentration

[MS-EXPH]

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<th>Code</th>
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<tbody>
<tr>
<td>EXPH</td>
<td>QUANTITATIVE AND RESEARCH METHODS IN ATHLETIC TRAINING AND EXERCISE PHYSIOLOGY</td>
<td>3</td>
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<tr>
<td>EXPH</td>
<td>ENERGY METABOLISM AND BODY COMPOSITION</td>
<td>3</td>
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<tr>
<td>EXPH</td>
<td>CARDIO-RESPIRATORY FUNCTION</td>
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Thesis or Non-Thesis Option, choose from the following:

- **EXPH 63199** THESIS I
- **EXPH 63098** RESEARCH
- **& EXPH 65192** and INTERNSHIP IN EXERCISE PHYSIOLOGY
- **EXPH 65192** INTERNSHIP IN EXERCISE PHYSIOLOGY

Suggested Electives, choose from the following:

- **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 55080** PHYSIOLOGY OF EXERCISE
- **EXPH 60610** PHYSIOLOGY OF AGING: IMPLICATIONS FOR HUMAN BEHAVIOR
- **EXPH 63051** QUANTITATIVE AND RESEARCH METHODS IN ATHLETIC TRAINING AND EXERCISE PHYSIOLOGY
- **EXPH 63098** RESEARCH
- **EXPH 65075** MUSCLE FUNCTION AND EXERCISE
- **EXPH 65076** ENVIRONMENTAL STRESS 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

[MS-EXPH-ATTR]

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<tr>
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<tr>
<td><strong>ATTR 62010</strong></td>
<td>CONTEMPORARY ISSUES IN ATHLETIC TRAINING</td>
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<td><strong>ATTR 62012</strong></td>
<td>EDUCATION AND SUPERVISION PROCESSES IN ATHLETIC TRAINING</td>
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<td><strong>ATTR 62014</strong></td>
<td>ADVANCED CLINICAL PROCEDURES IN ATHLETIC TRAINING AND SPORTS MEDICINE</td>
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<tr>
<td><strong>ATTR 62016</strong></td>
<td>CLINICAL INQUIRY IN ATHLETIC TRAINING</td>
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Thesis or Non-Thesis Option, choose from the following: **3-6**

- **ATTR 63199** THESIS I
- **ATTR 63098** RESEARCH

Suggested Electives, choose from the following: **9-12**

- **BMS 60449** MEDICAL PHYSIOLOGY I
- **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

Minimum Total Credit Hours: **27**

1. Students who select the non-thesis option must take additional coursework to meet the minimum credit hours required for the degree.

### 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.