EXERCISE PHYSIOLOGY - M.S.

Contact Information
- Program Coordinator:
  J. Derek Kingsley
  jkingsle@kent.edu
  330-672-0222
- Chat with an Admissions Counselor

Fully Offered
- Kent Campus

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 physiology 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.

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 3.000 undergraduate GPA on a 4.000 point scale for unconditional admission
- Official transcript(s)
- 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
  - Minimum 110 Duolingo English Test 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) or NSCA exams: Certified Exercise Physiologist (C-EP) or Certified Strength and Conditioning Specialist (CSCS).
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.

Professional Licensure Disclosure
This program is designed to prepare students to sit for applicable licensure or certification in Ohio. If you plan to pursue licensure or certification in a state other than Ohio, please review state educational requirements for licensure or certification and contact information for state licensing boards at Kent State’s website for professional licensure disclosure.

Program Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATTR 53018</td>
<td>ETHICAL LEADERSHIP FOR HEALTH CARE</td>
<td>3</td>
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</tbody>
</table>
EXPH 63050  
RESEARCH PROCESS IN ATHLETIC TRAINING AND EXERCISE PHYSIOLOGY  
3

EXPH 63091  
RESEARCH SEMINAR  
1

Additional Requirements or Concentration

Choose from the following:  
27

Additional Requirements for Students Not Declaring a Concentration

Athletic Training Concentration

Minimum Total Credit Hours:  
34

Additional Requirements for Students Not Declaring a Concentration

<table>
<thead>
<tr>
<th>Code</th>
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<th>Credit Hours</th>
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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>
</tr>
<tr>
<td>or EXPH 65083</td>
<td>EXERCISE ENERGY METABOLISM</td>
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</tr>
<tr>
<td>EXPH 65082</td>
<td>CARDIO-RESPIRATORY FUNCTION</td>
<td>3</td>
</tr>
<tr>
<td>or EXPH 65084</td>
<td>CARDIOVASCULAR-RESPIRATORY DYNAMICS DURING EXERCISE</td>
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Thesis or Non-Thesis Option, choose from the following:  
6

EXPH 63199  
THESIS I  

EXPH 63098  
RESEARCH  

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 50431  
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 63095  
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

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

Athletic Training Concentration Requirements

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>ATTR 62014</td>
<td>ADVANCED CLINICAL PROCEDURES IN ATHLETIC TRAINING AND SPORTS MEDICINE</td>
<td>3</td>
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<td>ATTR 62016</td>
<td>CLINICAL INQUIRY IN ATHLETIC TRAINING</td>
<td>3</td>
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<tr>
<td>Thesis or Non-Thesis Option, choose from the following:</td>
<td>3-6</td>
<td></td>
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<tr>
<td>ATTR 63199</td>
<td>THESIS I</td>
<td></td>
</tr>
<tr>
<td>ATTR 63098</td>
<td>RESEARCH</td>
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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 50431  
NEUROENDOCRINOLOGY  

BSCI 50432  
ENDOCRINOLOGY  

BSCI 50433  
MAMMALIAN PHYSIOLOGY I  

BSCI 50434  
MAMMALIAN PHYSIOLOGY II  

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  

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  

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EXPH 65084  
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EXPH 65086  
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NUTR 53513  
MICRONUTRIENT NUTRITIONAL BIOCHEMISTRY  

NUTR 53520  
SPORTS NUTRITION  

Additional Electives Chosen in Consultation with Advisor

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.