EXERCISE PHYSIOLOGY - M.S.

College of Education Health and Human Services
School of Health Sciences
www.kent.edu/ehhs/hs

Examples of Possible Careers*

Biological science teachers, postsecondary
  • 9.3% much faster than the average
  • 64,700 number of jobs
  • $85,600 potential earnings

Medical scientists, except epidemiologists
  • 6.1% faster than the average
  • 138,300 number of jobs
  • $91,510 potential earnings

Additional Careers
  • Strength and Conditioning Coach

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

Fully Offered
  • Kent Campus

Admission Terms
  • Fall
  • Spring
  • Summer

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.

*Note
Source of occupation titles and labor data is from the U.S. Bureau of Labor Statistics’ Occupational Outlook Handbook. Data comprises projected percent change in employment over the next 10 years; nation-wide employment numbers; and the yearly median wage at which half of the workers in the occupation earned more than that amount and half earned less.

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.
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**

**Major 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>
</tr>
<tr>
<td>EXPH 63050</td>
<td>RESEARCH PROCESS IN ATHLETIC TRAINING AND EXERCISE PHYSIOLOGY</td>
<td>3</td>
</tr>
<tr>
<td>EXPH 63091</td>
<td>RESEARCH SEMINAR</td>
<td>1</td>
</tr>
</tbody>
</table>

**Additional Requirements or Concentration**

Choose from the following:

**Athletic Training Concentration Requirements**

Minimum Total Credit Hours: 34

**Additional Requirements for Students Not Declaring a Concentration**

Minimum Total Credit Hours: 27

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<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>
<td></td>
</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>
<td></td>
</tr>
</tbody>
</table>

**Additional Electives Chosen in Consultation with Advisor**

Minimum Total Credit Hours: 27

**Athletic Training Concentration Requirements**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATTR 62010</td>
<td>CONTEMPORARY ISSUES IN ATHLETIC TRAINING</td>
<td>3</td>
</tr>
<tr>
<td>ATTR 62012</td>
<td>EDUCATION AND SUPERVISION PROCESSES IN ATHLETIC TRAINING</td>
<td>3</td>
</tr>
<tr>
<td>ATTR 62014</td>
<td>ADVANCED CLINICAL PROCEDURES IN ATHLETIC TRAINING AND SPORTS MEDICINE</td>
<td>3</td>
</tr>
<tr>
<td>ATTR 62016</td>
<td>CLINICAL INQUIRY IN ATHLETIC TRAINING</td>
<td>3</td>
</tr>
</tbody>
</table>

**Thesis or Non-Thesis Option, choose from the following:**

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

**Suggested Electives, choose from the following:**

- **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 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 65080** EXERCISE ENERGY METABOLISM
- **EXPH 65082** CARDIO-RESPIRATORY FUNCTION
- **EXPH 65083** EXERCISE ENERGY METABOLISM
- **EXPH 65084** CARDIOVASCULAR-RESPIRATORY DYNAMICS DURING EXERCISE

**Minimum Total Credit Hours:** 27

**Athletic Training Concentration Requirements**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATTR 62010</td>
<td>CONTEMPORARY ISSUES IN ATHLETIC TRAINING</td>
<td>3</td>
</tr>
<tr>
<td>ATTR 62012</td>
<td>EDUCATION AND SUPERVISION PROCESSES IN ATHLETIC TRAINING</td>
<td>3</td>
</tr>
<tr>
<td>ATTR 62014</td>
<td>ADVANCED CLINICAL PROCEDURES IN ATHLETIC TRAINING AND SPORTS MEDICINE</td>
<td>3</td>
</tr>
<tr>
<td>ATTR 62016</td>
<td>CLINICAL INQUIRY IN ATHLETIC TRAINING</td>
<td>3</td>
</tr>
</tbody>
</table>

**Thesis or Non-Thesis Option, choose from the following:**

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

**Suggested Electives, choose from the following:**

- **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 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 65080** EXERCISE ENERGY METABOLISM
- **EXPH 65082** CARDIO-RESPIRATORY FUNCTION
- **EXPH 65083** EXERCISE ENERGY METABOLISM
- **EXPH 65084** CARDIOVASCULAR-RESPIRATORY DYNAMICS DURING EXERCISE

**Minimum Total Credit Hours:** 27
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.