EXERCISE SCIENCE (MS)

Take the next step towards a career in rehabilitation, sports medicine, or fitness.

While a bachelor’s degree in exercise science is sufficient to get an entry-level position, continuing education in exercise science is a must to advance in the field. At Loyola, you can earn a master’s degree in exercise science and move to a career in rehabilitation, sports medicine, athletic performance, or fitness.

Picture yourself helping people making positive lifestyle choices for their health, whether it’s in hospitals, acute and chronic care health centers, sports medicine, cardiac or pulmonary rehabilitation, community health centers, sports performance, or fitness facilities. This degree is a great first step toward a doctorate in physical therapy or PhD in exercise science.

Curriculum

During your first year in this two-year program, you will build a foundation in exercise science-related fields through classroom instruction and lab-based activities. In your second year, you will complete advanced specialty coursework as well as a 200-hour internship and a comprehensive final examination.

MSES Curriculum (36-38 credits)

Pre-Requisites: Anatomy with Lab (4 credits); Physiology with Lab (4 credits); Exercise Physiology (3 credits); Biomechanics or Applied Kinesiology with Lab (4 credits)

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<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>EXCM 401</td>
<td>Applied Physiology of Exercise</td>
<td>4</td>
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<tr>
<td>EXCM 450</td>
<td>Nutrition, Health and Performance</td>
<td>3</td>
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<tr>
<td>EXCM 475</td>
<td>Exercise Applications in Special Populations</td>
<td>3</td>
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<tr>
<td>EXCM 482</td>
<td>Research Methods and Evidence in Exercise Science</td>
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Concentrations and Electives

General Track and Concentration Elective Courses

General track must complete a minimum of 18 credit hours (15 of which are EXCM courses) from below. Concentrations must complete a minimum of 6 credit hours (3 of which are EXCM courses) from below.

- EXCM 424 Motor Learning and Performance
- EXCM 435 Health Promotion and Wellness Theories and Frameworks
- EXCM 444 Strength Training and Conditioning
- EXCM 454 Applied Sports Science
- EXCM 458 Cardiac and Pulmonary Disease and Rehabilitation
- EXCM 468 Application of Advanced Clinical Exercise Testing & Prescription
- EXCM 475 Exercise Applications in Special Populations
- EXCM 478 EKG Interpretation
- EXCM 480 Advanced Exercise Assessment and Programming
- EXCM 485 Applied Biomechanics
- MHA 405 U.S. Health Systems Management

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<th>Code</th>
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<tr>
<td>MPBH 413</td>
<td>The Epidemiology of Obesity: An Energy Balance Perspective</td>
<td>3</td>
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<tr>
<td>EXCM 424</td>
<td>Motor Learning and Performance</td>
<td>3</td>
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<tr>
<td>EXCM 444</td>
<td>Strength Training and Conditioning</td>
<td>3</td>
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<tr>
<td>EXCM 480</td>
<td>Advanced Exercise Assessment and Programming</td>
<td>3</td>
</tr>
<tr>
<td>EXCM 485</td>
<td>Applied Biomechanics</td>
<td>4</td>
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Human Performance Concentration Courses

Students must enroll in the 4 courses listed below to successfully complete concentration

- EXCM 424 Motor Learning and Performance
- EXCM 444 Strength Training and Conditioning
- EXCM 480 Advanced Exercise Assessment and Programming
- EXCM 485 Applied Biomechanics

Clinical Exercise Science Concentration Courses

Students must enroll in the 4 courses listed below to successfully complete concentration

- EXCM 435 Health Promotion and Wellness Theories and Frameworks
- EXCM 458 Cardiac and Pulmonary Disease and Rehabilitation
- EXCM 468 Application of Advanced Clinical Exercise Testing & Prescription
- EXCM 478 EKG Interpretation

Internship Course

EXCM 495 Advanced Exercise Science Internship

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Comprehensive Examination

- A comprehensive exam is required for all students. Please contact your Graduate Program Director or visit the EXCM Graduate Student Sakai page for more information.

Learning Outcomes

Upon successful completion of the program, graduates will be able to:

- Conduct comprehensive health and fitness assessments using theories and frameworks.
- Apply scientific principles and evidence-based recommendations into the prescription, implementation, and evaluation of exercise and fitness programs.
- Create lifestyle modification and health promotion plans for individuals and groups.
- Incorporate effective communication and motivational strategies to support clients or patients as they adopt, perform, and maintain a healthy lifestyle.
- Implement role behaviors consistent with the scope of practice of exercise sciences.
- Manage human, fiscal, and physical resources of health fitness facilities and programs.