

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)

Code	Title	Hours
Foundational Coursework		
EXCM 401	Applied Physiology of Exercise	4
EXCM 450	Nutrition, Health and Performance	3
EXCM 475	Exercise Applications in Special Populations	3
EXCM 482	Research Methods and Evidence in Exercise Science	3
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.		6-18
EXCM 424	Motor Learning and Performance	3
EXCM 435	Health Promotion and Wellness Theories and Frameworks	3
EXCM 444	Strength Training and Conditioning	3
EXCM 454	Applied Sports Science	3
EXCM 458	Cardiac and Pulmonary Disease and Rehabilitation	3
EXCM 468	Application of Advanced Clinical Exercise Testing & Prescription	4
EXCM 475	Exercise Applications in Special Populations	3
EXCM 478	EKG Interpretation	0
EXCM 480	Advanced Exercise Assessment and Programming	3
EXCM 485	Applied Biomechanics	4
MHA 405	U.S. Health Systems Management	3

MPBH 413	The Epidemiology of Obesity: An Energy Balance Perspective	3
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Human Performance Concentration Courses

Students must enroll in the 4 courses listed below to successfully complete concentration 13

EXCM 424	Motor Learning and Performance	3
EXCM 444	Strength Training and Conditioning	3
EXCM 480	Advanced Exercise Assessment and Programming	3
EXCM 485	Applied Biomechanics	4

Clinical Exercise Science Concentration Courses

Students must enroll in the 4 courses listed below to successfully complete concentration 10

EXCM 435	Health Promotion and Wellness Theories and Frameworks	3
EXCM 458	Cardiac and Pulmonary Disease and Rehabilitation	3
EXCM 468	Application of Advanced Clinical Exercise Testing & Prescription	4
EXCM 478	EKG Interpretation	0

Internship Course

EXCM 495	Advanced Exercise Science Internship	4
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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.