EXERCISE SCIENCE (BS)

Pursue a career in fitness, exercise, and physical performance and work with athletes, individuals, or people with health challenges

Whether it is fitness training at a gym or exercise physiology in a health care setting, an exercise science graduate helps people improve their health and wellness with physical activity. Through coursework and hands-on experience, students in the Loyola Exercise Science program will develop skills to evaluate health behaviors and risk factors, conduct fitness assessments, write exercise prescriptions, and motivate individuals to practice positive health behaviors.

Exercise science majors at Loyola can enroll in the five-year combined bachelor's/master's degree program and earn both degrees in only five years.

Curriculum

Learn more about the Exercise Science laboratories (https://www.luc.edu/parkinson/academics/departments/appliedhealthsciences/exercisescience/exercisesciencelaboratories/) that offer the latest health and exercise science technology to students and faculty.

Code	Title	Hours
Exercise Science Prerequisites		
BIOL 101 & BIOL 111	General Biology I and General Biology I Lab	
BIOL 102 & BIOL 112	General Biology II and General Biology II Lab	
CHEM 160 & CHEM 161	Chemical Structure and Properties and Chemical Structure and Properties Laboratory	
CHEM 180 & CHEM 181	Chemical Reactivity I and Chemical Reactivity I Lab	
PSYC 101	General Psychology	
STAT 103	Fundamentals of Statistics	
PSYC 273	Developmental Psychology	
GNUR 155 & 155L	Human Anatomy and Human Anatomy Lab	
GNUR 156 & 156L	Human Physiology and Human Physiology Lab	
PHYS 111 & 111L	College Physics I Lec / Dis and College Physics Laboratory I	
PHYS 112 & 112L	College Physics II Lec/Disc and College Physics Lab II	
EXCM 101	Introduction to Exercise Physiology	
EXCM 201	Physiology of Exercise	
Exercise Science Major Course		
EXCM 210	Program Design in Exercise	2
EXCM 301	Advanced Physiology of Exercise	3
EXCM 342	Physical Growth, Development and Nutrition	3
EXCM 345	Therapeutic Exercise and Rehabilitation	3
EXCM 364	Intro to Clinical Exercise Testing and Prescription	3
EXCM 368	Advanced Clinical Testing and Prescriptions	3
EXCM 375	Special Populations in Exercise Science	2
EXCM 382	Clinical Research: Methods, Design and Ethics w/ Lab	3
EXCM 385	Kinesiology and Sports Biomechanics w/Lab	4
EXCM 387	Movement Anatomy in Exercise	3
EXCM 390	Psychology of Health and Exercise	3
EXCM 395	Clinical Internship and Patient Management	6
Total Hours		**38**

Suggested Sequence of Courses

EXCM students must complete this list of core areas:

- **Artistic Knowledge** (1 course/3 credit hours)
- **Historical Knowledge** (2 courses/6 credit hours)
- **Literary Knowledge** (2 courses/6 credit hours)
- **Societal & Cultural Knowledge** (1 course/3 credit hours)
- **Theological Knowledge** (2 courses/6 credit hours)
- **Philosophical Knowledge** (2 courses/6 credit hours)
- **Ethics** (1 course/3 credit hours)

The below sequence of courses is meant to be used as a suggested path for completing coursework. An individual student's completion of requirements depends on course offerings in a given term as well as the start term for a major or graduate study. Students should consult their advisor for assistance with course selection.

Course	Title	Hours
First Year		
Fall		
BIOL 101 & BIOL 111	General Biology I and General Biology I Lab	4
GNUR 155 & 155L	Human Anatomy and Human Anatomy Lab	4
CORE		3
CORE		3
UNIV 101	First Year Seminar	1
	Hours	**15**
Spring		
UCWR 110	Writing Responsibly	3
BIOL 102 & BIOL 112	General Biology II and General Biology II Lab	4
GNUR 156 & 156L	Human Physiology and Human Physiology Lab	4
CORE		3
CORE		3
	Hours	**17**
Second Year		
Fall		
PSYC 101	General Psychology (Fulfills Tier II Societal & Cultural CORE)	3
CHEM 160 & CHEM 161	Chemical Structure and Properties and Chemical Structure and Properties Laboratory	4
EXCM 101	Introduction to Exercise Physiology	3
CORE		3
CORE		3
	Hours	**16**
Spring		
EXCM 201	Physiology of Exercise	4

CHEM 180 & CHEM 181	Chemical Reactivity I and Chemical Reactivity I Lab	4
CORE		3
STAT 103	Fundamentals of Statistics (Fulfills Quantitative Knowledge CORE)	3
CORE		3
	Hours	**17**
Third Year		
Fall		
PSYC 273	Developmental Psychology	3
CORE		3
CORE		3
PHYS 111 & 111L	College Physics I Lec / Dis and College Physics Laboratory I	4
EXCM 364	Intro to Clinical Exercise Testing and Prescription [2]	3
	Hours	**16**
Spring		
EXCM 375	Special Populations in Exercise Science [2]	2
EXCM 301	Advanced Physiology of Exercise [2]	3
PHYS 112 & 112L	College Physics II Lec/Disc and College Physics Lab II	4
EXCM 368	Advanced Clinical Testing and Prescriptions [2]	3
CORE		3
	Hours	**15**
Fourth Year		
Fall		
EXCM 382	Clinical Research: Methods, Design and Ethics w/Lab [2]	3
EXCM 210	Program Design in Exercise [2]	2
EXCM 385	Kinesiology and Sports Biomechanics w/ Lab [2]	4
EXCM 342	Physical Growth, Development and Nutrition [2]	3
EXCM 345	Therapeutic Exercise and Rehabilitation [2]	3
	Hours	**15**
Spring		
EXCM 395	Clinical Internship and Patient Management [2]	6
EXCM 387	Movement Anatomy in Exercise [2]	3
EXCM 390	Psychology of Health and Exercise [2]	3
	Hours	**12**
	Total Hours	**123**

1 Prerequisite: MATH 117 Precalculus I or equivalent. Co-requisite: CHEM 161 Chemical Structure and Properties Laboratory and MATH 118 Precalculus II.

2 Prerequisite: GNUR 156 Human Physiology/GNUR 156L Human Physiology Lab

Additional Undergraduate Graduation Requirements

All Undergraduate students are required to complete the University Core, at least one Engaged Learning course, and UNIV 101. SCPS students are not required to take UNIV 101. Nursing students in the Accelerated BSN program are not required to take core or UNIV 101. You can find more information in the University Requirements (https://catalog.luc.edu/undergraduate/university-requirements/) area.

Learning Outcomes

- Demonstrate proficiency in exercise and fitness screening, health appraisal and risk stratification, fitness assessment and evaluation, and exercise techniques.
- Communicate effectively and collaboratively with clients and the interprofessional team in exercise and fitness settings.
- Integrate values, ethics, and client preferences into exercise science practice
- Participate in activities to promote lifelong learning and professional development in exercise science.
- Demonstrate proficiency in critical thinking and evidence-based decision making in Exercise science.
- Synthesize knowledge from the arts, sciences and exercise sciences as the basis for assessment of physical capabilities and exercise prescriptions.