

# Exercise Science Major

## Exercise Science Major

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The Exercise Science Program offers an academic major with two tracks, each with a challenging curriculum. Both, the Health and Wellness Track and the Health Professions track lead to a Bachelor of Science degree. The Exercise Science Program also coordinates the Activity/Wellness courses that are a part of the general education requirements for all undergraduates. The Exercise Science curriculum promotes critical thinking, encourages the development of leadership skills, and prepares students for careers in and continued study of the application of the principles of human movement, exercise, and healthy living.

The mission of the Exercise Science Program at Lyon College is to discover and promote knowledge of human movement and performance to improve the health and quality of life of individuals at all stages of life and society as a whole.

The Exercise Science major is open to all qualified Lyon College students following the prescribed admission pathway:

1. Students who are in their first year at Lyon (either freshmen or transfers) who express an interest in majoring in Exercise Science must meet with the Exercise Science faculty to evaluate their preparedness for the program, and to plan a course of study that will support their entry. At a minimum, EXS 201 should be completed with a C or better the freshman year.
2. Students in their second pre-baccalaureate year may declare the Exercise Science major provided that they have a cumulative GPA of 2.5 or higher and that they have completed EXS 201, EXS 205, and BIO 110 with a C or better. If the GPA threshold is not met, the student can work with the Exercise Science faculty to develop a remediation plan that provides an opportunity for the student to meet all of the admissions requirements.

**Students may use the following courses to satisfy Core requirements: BIO 110, CHM 105, CHM 110, PSY 101, and RPH 205**

**NOTE: To graduate with a Bachelor of Arts or Bachelor of Science degree from Lyon College, students must successfully complete a minimum of 120 semester credit hours comprised of our required Core curriculum (44-48 hours), the requirements of at least one major (credit hours vary per major), and a selection of our Liberal Arts electives. They must also earn at least a 2.00 cumulative grade point average for all work taken at Lyon College and a 2.00 cumulative grade point average in their major, minor, and concentration.**

# Exercise Science Major Degrees

## Exercise Science Major - Fitness & Wellness Track (BS)

### Summary of Requirements for a Major in Exercise Science - Fitness & Wellness Track

Item #	Title	Credits
EXS 201	Health and Wellness	3
EXS 205	Nutrition Concepts for Exercise Science	3
EXS 207	First Aid and Care of Athletic Injuries	3
EXS 302	Kinesiology	3
EXS 309	Motor Learning	3
EXS 325	Fitness Assessment and Exercise Prescription	3
EXS 375	Exercise Physiology	4
EXS 450	Senior Seminar in Exercise Science	3
BIO 110	Principles of Biology I	4
BIO 260	Human Anatomy and Physiology I	4
BIO 262	Human Anatomy and Physiology II	4
	CHM 105 or CHM 110	4
PSY 101	Introduction to Psychology	3
	PSY 235 or BUS 323	3
PSY 290	Human Development	3
RPH 205	Introduction to Ethics	3

Choose two from the following courses (5-6 credits):

Item #	Title	Credits
	BIO 310 and BIO 311	2
	PSY 334 or PSY 339	3
OLP 150	Outdoor Leadership	3

### CORE CURRICULUM

Item #	Title	Credits
	Core Curriculum Requirements (In addition to Major hours)	44-48
	<b>Total Credits</b>	<b>102-107</b>

### CHM 105 or CHM 110

Item #	Title	Credits
CHM 105	Introduction to Chemistry *	4
CHM 110	General Chemistry I	4

### PSY 235 or BUS 323

Item #	Title	Credits
PSY 235	Statistics for the Behavioral Sciences	3
BUS 323	Statistical Applications to Business Decision Making	3

## BIO 310 and BIO 311

Item #	Title	Credits
BIO 310	Health Coaching	1
BIO 311	Health Coaching Practicum	1

## PSY 334 or PSY 339

Item #	Title	Credits
PSY 339	Learning and Cognition	3

## Exercise Science Major - Health Professions Track

### Summary of Requirements for a Exercise Science Major - Health Professions Track

Item #	Title	Credits
EXS 201	Health and Wellness	3
EXS 205	Nutrition Concepts for Exercise Science	3
EXS 207	First Aid and Care of Athletic Injuries	3
EXS 302	Kinesiology	3
EXS 309	Motor Learning	3
EXS 325	Fitness Assessment and Exercise Prescription	3
EXS 375	Exercise Physiology	4
EXS 450	Senior Seminar in Exercise Science	3
BIO 110	Principles of Biology I	4
BIO 260	Human Anatomy and Physiology I	4
BIO 262	Human Anatomy and Physiology II	4
	CHM 105 or CHM 110	4
PHY 210	General Physics I	3
PHY 211	General Physics I Laboratory	1
PSY 101	Introduction to Psychology	3
	PSY 235 or BUS 323	3
RPH 205	Introduction to Ethics	3

Choose two from the following (5-6 credits):

Item #	Title	Credits
	BIO 310 and BIO 311	2
	PSY 290 or PSY 335	3
OLP 150	Outdoor Leadership	3

## CORE CURRICULUM

Item #	Title	Credits
	Core Curriculum Requirements (In addition to Major hours)	44-48

## **CHM 105 or CHM 110**

<b>Item #</b>	<b>Title</b>	<b>Credits</b>
CHM 105	Introduction to Chemistry *	4
CHM 110	General Chemistry I	4

## **PSY 235 or BUS 323**

<b>Item #</b>	<b>Title</b>	<b>Credits</b>
PSY 235	Statistics for the Behavioral Sciences	3
BUS 323	Statistical Applications to Business Decision Making	3

## **BIO 310 and BIO 311**

<b>Item #</b>	<b>Title</b>	<b>Credits</b>
BIO 310	Health Coaching	1
BIO 311	Health Coaching Practicum	1

## **PSY 290 or PSY 335**

<b>Item #</b>	<b>Title</b>	<b>Credits</b>
PSY 290	Human Development	3
PSY 335	Abnormal Psychology	3

## **Exercise Science Minor**

**Students may use BIO 110, and PSY 101 to satisfy Core requirements.**

### **Summary of Requirements for a Minor in Exercise Science**

<b>Item #</b>	<b>Title</b>	<b>Credits</b>
EXS 201	Health and Wellness	3
EXS 205	Nutrition Concepts for Exercise Science	3
EXS 302	Kinesiology	3
BIO 110	Principles of Biology I	4
BIO 260	Human Anatomy and Physiology I	4
BIO 262	Human Anatomy and Physiology II	4
PSY 101	Introduction to Psychology	3
<b>Total Credits</b>		<b>27</b>

## **Exercise Science Elective**

# Exercise Science Major (EXS) Courses

## EXS 201: Health and Wellness

Provides the necessary information, opportunities, and strategies needed to obtain lifetime wellness.

**Credits** 3

## EXS 205: Nutrition Concepts for Exercise Science

An introductory course in contemporary nutrition issues that focuses on the fundamentals of nutrition that affect human function and well-being, covering basic physiology, nutrients and dietary standards and analysis.

**Credits** 3

## EXS 207: First Aid and Care of Athletic Injuries

Presents instruction and orientation in prevention and care of common athletic injuries.

**Credits** 3

## EXS 302: Kinesiology

Study of the muscular-skeletal system of the human body and the mechanics of human motion and its application to physical activities.

**Credits** 3

## EXS 309: Motor Learning

Provides knowledge of various factors that may affect learning and performance of human movement activities.

**Credits** 3

## EXS 325: Fitness Assessment and Exercise Prescription

Introduction to the appropriate selection and application of exercise testing, and the use of testing results to construct an activity or exercise plan designed to address health issues.

**Credits** 3

### **Prerequisites**

BIO 110, BIO 260, BIO 262, EXS 201, or permission of instructor.

## EXS 375: Exercise Physiology

This course addresses the study of how the body (on the cellular, tissue, organ system levels) responds in function and structure to 1) acute exercise stress, and 2) chronic physical activity. Aspects of chemistry, biology, and physics are integrated to explain biological events and their sites of occurrence in the human body as they affect exercise and training. Includes energy systems, neuromuscular concepts as applied to sports, and functions of the cardiovascular and respiratory systems. (Same as BIO 375)

**Credits** 4

**Prerequisites**

EXS 201

BIO 260

BIO 262

CHM 105

## EXS 382: Special Topics

Special Topic in Exercise Science

**Credits** 3

## EXS 450: Senior Seminar in Exercise Science

Capstone course for Exercise Science that integrates theory, research, and practical experience in the field with career exploration and preparation. Preparation for external certification exams (ACSM and/or NSCA) is included.

**Credits** 3

**Prerequisites**

EXS 201

EXS 205

EXS 302

EXS 325

BIO 260

Or senior status as a declared Exercise Science major or minor.