

EXERCISE SCIENCE MAJOR

Select one emphasis	19-34
Total Hours	63-78

Exercise Science is the study of physiological and functional adaptations to movement. The exercise science major is a science-oriented curriculum that prepares students for graduate study in exercise science/ kinesiology, athletic training, physical therapy, occupational therapy, and related health fields. In addition, graduates may pursue careers as strength and conditioning specialists, cardiac technicians, individual and group exercise prescription specialists, and home health-care workers. The program requires and recommends coursework in health sciences as well as anatomy, chemistry, physics, statistics, physiology, and psychology, culminating in a practical hands-on internship experience.

All exercise science majors complete a 44 hours exercise science core (required courses) in addition to choosing at least one area of emphasis: Pre-Athletic Training, Pre-Occupational Therapy, Pre-Physical Therapy, and/or Kinesiology. Up to 19 hours of major requirements may meet general education requirements.

Program Outcomes:

Students graduating with a Bachelor of Arts degree in Exercise Science will be able to:

- demonstrate knowledge of the discipline
- evidence professional and personal development
- demonstrate interdisciplinary understanding
- evidence Christian faithfulness

Code	Title	Hours
Exercise Science Core		
Health Sciences Courses		
HS 161	Medical Terminology	1
HS 162	Introduction to Interprofessional Health Sciences	1
HS 165	Responding to Emergencies and Sport Safety Training	3
HS 168	Prevention and Care of Athletic Injury	3
HS 201X	Physiology of Exercise	4
HS 202	Nutrition ¹	3
HS 251	Kinesiology	3
HS 454	Measurement, Research, Statistics and Technology	3
HS 490	Seminar in Interprofessional Health Sciences	1
Biology		
BIO 111	General Biology ¹	4
BIO 340	Human Anatomy and Physiology I	4
BIO 341	Human Anatomy and Physiology II	4
Mathematics		
MA 285X	Statistics ¹	4
Bioethics		
BE 474X	Introduction to Bioethics ¹	3
	or BE 476X Undergraduate Bioethics Institute	
Psychology		
PSY 140	Introduction to Psychology ¹	3

¹ May be used to fulfill a general education requirement

Pre-Athletic Training Emphasis

The pre-athletic training emphasis combines a solid theoretical science foundation with the practical training needed to give students a competitive edge for acceptance to professional athletic training graduate programs.

Code	Title	Hours
Pre-Athletic Training Emphasis		
Select one		4-8
CH 111 & CH 112	General Chemistry I and General Chemistry II	
CH 157	Introduction to General, Organic, and Biochemistry	
HPW 228X	Sport and Wellness Psychology ¹	3
HS 351	Biomechanics	4
HS 480	Professional Rotation in Health Sciences	1-6
MA 121	Calculus and Analytic Geometry I ¹	4
PHY 111	General Physics I ¹	4
PHY 112	General Physics II	4
Highly Recommended Athletic Training courses		
BIO 310	Microbiology	
HS 365	Motor Learning and Lifespan Development	
HS 370	Introduction to Therapeutic Modalities and Rehabilitation	
HS 380	Advanced Functional Anatomy	
Choose one:		
PSY 310	Abnormal Psychology	
PSY 335	Child Development	
PSY 337	Psychology of Adolescence	
PSY 339	Adult Development	
Total Hours		24-33

¹ May be used to fulfill a general education requirement

Pre-Occupational Therapy Emphasis

The pre-occupational therapy emphasis combines a solid theoretical foundation in science with the practical training needed to give students a competitive edge for acceptance to professional occupational therapy graduate programs.

Code	Title	Hours
Pre-Occupational Therapy Emphasis		
Select one option:		4-8
CH 111 & CH 112	General Chemistry I and General Chemistry II ¹ May be used to fulfill a general education requirement.	
CH 157	Introduction to General, Organic, and Biochemistry ¹ May be used to fulfill a general education requirement.	
HS 480	Professional Rotation in Health Sciences	1-6
MA 121	Calculus and Analytic Geometry I	4
PHY 111	General Physics I	4
Choose two classes, 6 hours from one of the following categories:		6
PSY 335	Child Development	
PSY 337	Psychology of Adolescence	
PSY 339	Adult Development	
PSY 310	Abnormal Psychology	
Highly Recommended Courses for Pre-Occupational Therapy		
BIO 310	Microbiology	
HPW 228X	Sport and Wellness Psychology	
HS 365	Motor Learning and Lifespan Development	
HS 370	Introduction to Therapeutic Modalities and Rehabilitation	
Total Hours		19-28

¹ May be used to fulfill a general education requirement

Pre-Physical Therapy Emphasis

The pre-physical therapy emphasis combines a solid theoretical science foundation with the practical training needed to give students a competitive edge for acceptance to professional physical therapy programs.

Code	Title	Hours
Pre-Physical Therapy Emphasis		
BIO 410	Biology Seminar	1
CH 111	General Chemistry I ¹	4
CH 112	General Chemistry II	4
HS 480	Professional Rotation in Health Sciences	1-6
MA 121	Calculus and Analytic Geometry I ¹	4
PHY 111	General Physics I ¹	4
PHY 112	General Physics II	4
Choose one:		4
BIO 310	Microbiology	
BIO 320 & BIO 321	Immunology and Immunology Case Studies Laboratory	
BIO 430	Developmental Biology	
Choose one:		3
PSY 310	Abnormal Psychology	
PSY 335	Child Development	
PSY 337	Psychology of Adolescence	
PSY 339	Adult Development	
Highly Recommended Courses for Pre-Physical Therapy		
HPW 228X	Sport and Wellness Psychology ¹	
HS 351	Biomechanics	
HS 365	Motor Learning and Lifespan Development	
HS 370	Introduction to Therapeutic Modalities and Rehabilitation	
Total Hours		29-34

¹ May be used to fulfill a general education requirement

Kinesiology Emphasis

The kinesiology emphasis gives students with the necessary tools to become experts in the field of strength and conditioning, whether working with athletes, in a health club, or conducting research.

Code	Title	Hours
Kinesiology Emphasis		
Select one option:		4-8
CH 111 & CH 112	General Chemistry I and General Chemistry II ¹	
CH 157	Introduction to General, Organic, and Biochemistry	
HPW 220	Practicum in Sport and Wellness Management	3
HPW 228X	Sport and Wellness Psychology ¹	3
HPWA 204	Advanced Weight Training	1
HS 351	Biomechanics	4
HS 446	Field Internship	6-12
HS 455	Advanced Strength Training and Program Design	3
Highly Recommended Kinesiology Courses		
HS 370	Introduction to Therapeutic Modalities and Rehabilitation	
HS 402	Sport Nutrition	
Total Hours		24-34

¹ May be used to fulfill a general education requirement