

EXERCISE SCIENCE MAJOR (B.S.)

<https://chhs.unh.edu/kinesiology/program/bs/exercise-science-major>

Description

This curriculum prepares students for careers in health and fitness promotion and education programs in hospitals, sports medicine centers, wellness clinics, universities, and rehabilitation facilities. Students are also prepared for advanced degree programs in the health professions, basic biology fields, medicine, or other health-related fields.

Interested students should consult with the undergraduate major coordinator, Summer.Cook@unh.edu.

Requirements

Degree Requirements

Minimum Credit Requirement: 128 credits

Minimum Residency Requirement: 32 credits must be taken at UNH

Minimum GPA: 2.0 required for conferral*

Core Curriculum Required: Discovery & Writing Program Requirements

Foreign Language Requirement: No

All Major, Option and Elective Requirements as indicated.

*Major GPA requirements as indicated.

Major Requirements

Students must earn a grade of C (2.0) or better in every required course. Successful completion of early and prerequisite courses is required before advancing to sequenced and higher-level coursework. All required courses must be completed before enrolling in EXSC 650A Internship in Exercise Science.

Code	Title	Credits
BMS 507 & BMS 508	Human Anatomy and Physiology I and Human Anatomy and Physiology II	8
CHEM 403 & CHEM 404	General Chemistry I and General Chemistry II	8
EXSC 520	Contemporary Perspectives in Exercise Science	4
EXSC 620	Physiology of Exercise	4
KIN 652	Clinical Kinesiology	4
EXSC 621	Exercise Laboratory Techniques	4
EXSC 650A	Internship in Exercise Science	4-8
EXSC 704	Electrocardiography	4
EXSC 705	Topics in Applied Physiology	4
EXSC 720	Science and Practice of Strength Training	4
EXSC 722	Applied Biomechanics	4
EXSC 724	Exercise Metabolism: Acute and Chronic Adaptations	4
EXSC 736	Fitness and Graded Exercise Testing	4
EXSC 737	Exercise Prescription and Leadership in Healthy and Special Populations	4
EXSC 794	Cardiopulmonary Pathologies	4
EXSC 795	Practicum in Cardiac Rehabilitation	2
NUTR 400	Nutrition in Health and Well Being	4
PSYC 401	Introduction to Psychology	4
Select one of the following:		4
PSYC 402	Statistics in Psychology	

SOC 402	Statistics	
Total Credits		82-86
Code	Title	Credits
Students in exercise science complete the series of Capstone courses ¹		
EXSC 736	Fitness and Graded Exercise Testing	4
EXSC 737	Exercise Prescription and Leadership in Healthy and Special Populations	4
EXSC 650A	Internship in Exercise Science	4-8
Total Credits		12-16

¹ These courses give students practical experience in evaluating health and fitness and prescribing exercise to a wide range of clients. Specifically, students assess a number of disease risk factors, including blood pressure, blood chemistry, and body composition measures, and perform maximal graded exercise tests complete with electrocardiogram monitoring, as well as measure strength and flexibility. Students ultimately develop individualized exercise prescriptions for their clients and work with them one-on-one to improve their health and fitness. The internship experience is an off-campus, 10-week, 40-hours per week, full-time experience and can only be taken after all University and departmental courses are completed. Typically, this is taken during the summer after the student's senior spring academic term.

Degree Plan

Suggested Course Sequence

First Year

Fall		Credits
BMS 507	Human Anatomy and Physiology I	4
ENGL 401	First-Year Writing	4
EXSC 520	Contemporary Perspectives in Exercise Science	4
PSYC 401	Introduction to Psychology	4
Credits		16

Spring

BMS 508	Human Anatomy and Physiology II	4
Discovery Course (INQ/HP)		4
Discovery Course: Statistics (QR)		4
NUTR 400	Nutrition in Health and Well Being	4
Credits		16

Second Year

Fall

CHEM 403	General Chemistry I	4
EXSC 620	Physiology of Exercise	4
Discovery Course ETS		4
Discovery Course (FPA)		4
Credits		16

Spring

CHEM 404	General Chemistry II	4
EXSC 621	Exercise Laboratory Techniques	4
KIN 652	Clinical Kinesiology	4
Discovery Course (HUMA)		4
Credits		16

Third Year**Fall**

EXSC 704	Electrocardiography	4
EXSC 720	Science and Practice of Strength Training	4
EXSC 724	Exercise Metabolism: Acute and Chronic Adaptations	4
Elective Course (e.g. BIOL 411)		4
Credits		16

Spring

EXSC 722	Applied Biomechanics	4
Discovery Course - WI (WC)		4
Elective Course (e.g. BIOL 412)		4
Elective Course		4
Credits		16

Fourth Year**Fall**

EXSC 736	Fitness and Graded Exercise Testing	4
EXSC 794	Cardiopulmonary Pathologies	4
EXSC 795	Practicum in Cardiac Rehabilitation	2
Elective Course (e.g. PHYS 401)		4
Credits		14

Spring

EXSC 705	Topics in Applied Physiology	4
EXSC 737	Exercise Prescription and Leadership in Healthy and Special Populations	4
Elective Course		4
Elective Course (e.g. PHYS 402)		4
Credits		16

Summer

EXSC 650A	Internship in Exercise Science	4-8
Credits		4-8
Total Credits		130-134

Student Learning Outcomes

- Apply fundamental principles of anatomy & physiology, chemistry, nutrition, exercise physiology, psychology, math and physics to anticipate and understand physiologic responses to acute and chronic exercise.
- Evaluate empirical literature in terms of accuracy, authority, bias and relevance, and synthesize information from a variety of sources for presentation in written and oral forms.
- Demonstrate competency in health and fitness assessments and use them to prescribe evidence-based exercise interventions to improve health, athletic performance, physical function and quality of life in diverse populations.
- Display professionally appropriate behaviors, ethical standards, sensitivity, compassion, and tolerance of individual differences, and demonstrate the ability to work in an interprofessional healthcare team.