Exercise Science and Pre-Health Professions

COLLEGE OF ARTS AND SCIENCES

PROGRAM AVAILABLE: Bachelor of Science

Discover the effects of exercise on health and human performance.

Exercise science is the study of the metabolic, physiologic, and biomechanical response and adaptation to acute and chronic exercise. Students interested in careers in medicine, dentistry or one of the allied health professions (physical therapy, occupational therapy, physician assistant) will find the science-based courses of special interest because of their emphasis on the human body including anatomy with cadaver laboratory, human physiology, exercise physiology, biomechanics, nutrition, and exercise prescription. Approximately 90% of exercise science and pre-health professions majors apply for acceptance into graduate or professional schools.

The curriculum also prepares graduates for employment as strength and conditioning specialists, personal trainers, and corporate, community, and commercial fitness/wellness leaders.

WHAT YOU'LL LEARN

- Prescribe safe and effective exercise programs and develop nutrition strategies for disease prevention and enhanced human performance
- Become skilled in measuring resting and exercise heart rate and blood pressure, and administering laboratory procedures to assess body composition, muscular strength and endurance, blood lactate, and aerobic and anaerobic fitness
- How to conduct and understand research using both human and animal models
- Gain "real-world" experience in a clinical or work setting related to your career
 goals
- Earn a national certification as a Personal Trainer, Certified Exercise Physiologist, or Certified Strength and Conditioning Specialist

EXPERIENTIAL LEARNING OPPORTUNITIES

All majors complete 2 credit hours of internship to meet graduation requirements. The internship is an apprenticeship experience that provides students an opportunity to apply their knowledge and skills obtained in the classroom to a professional environment and receive on-site training in a career of their choice. One credit of internship corresponds to 50 hours of internship site experience. Recent Creighton student internships include:

- Fred & Pamela Buffett Cancer Center at Nebraska Medicine
- Rehab Science Research Lab at Creighton Physical Therapy School
- Nevro, a medical device company headquartered in Redwood City, CA
- Sancta Familia Medical Apostolate
- Creighton Dental School
- Children and Adolescents National Council, Dominican Republic
- Fitzpatrick Eye Associates, Omaha, NE
- ENT Specialists, Omaha, NE
- Athletes Training Center, Omaha, NE
- Methodist Estabrook Cancer Center, Omaha, NE
- Behavior Matters, Omaha, NE
- Papillion La Vista South School District
- The Urology Center P.C., Omaha, NE
- Think Whole Person Healthcare, Omaha, NE

CAREER OUTLOOK

Depending on their area of interest, graduates report being employed in full time positions or continue on to a master's degree program or enter a health care-related professional school.

Graduate Studies

The majority of graduates pursue additional study in:

- Medicine
- Physical Therapy
- Occupational Therapy
- Dentistry
- Osteopathic Medicine
- Physician Assistant
- Accelerated Nursing

In addition to Creighton's professional schools, graduates have pursued study at other institutions:

- University of Nebraska Medical Center
- Washington University
- University of Iowa
- Duke University
- University of Kansas
- St. Louis University
- Johns Hopkins University
- AT Still University
- Northwestern University
- Boston University Medical School

Employment Opportunities

Recent graduates have gone on to full time employment at organizations including:

- YMCA
- Nebraska Medicine
- Active duty US Air Force
- Jesuit Volunteer Corps
- United Health Group
- Active duty US Army
- Peace Corps
- Quality Living, Inc.
- ATI Physical Therapy
- Medical Device Sales

<u>Creighton</u>

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Bachelor of Science (B.S.) in Exercise Science and Pre-Health Professions.

COURSE INFORMATION

ADMISSION REQUIREMENTS

Students must have grades of "C" or better in BIO 201/205, BIO 205/206, CHM 203/204, and CHM 205/206 and in good standing before declaring the major.

DEGREE REQUIREMENTS:

EXS 125 EXS 240 EXS 320 EXS 331 EXS 334 EXS 335 EXS 391 EXS 401 EXS 407 EXS 450 EXS 489 EXS 492	First Aid Foundations of Fitness and Wellness Human Physiology Human Anatomy Biomechanics (or EXS 534) Exercise Physiology Career Preparation and Professionalism Exercise Prescription Basic Statistics & Research Design Nutrition for Health and Sports Performance Laboratory Methods & Procedures Internship (can substitute EXS 497) S/US	2 3 4 4 4 3 3 3 4 2
EXS 534	Neuromechanics (or EXS 334)	3
Elective	Must take 1 elective course 300 level or above	3
ELECTIVES:		
EXS 142	Weight Training and Program Design	1
EXS 144	Aerobic Conditioning and Group Fitness	2
EXS 150	Beginning Pickleball	1
EXS 151	Beginning Tennis	1
EXS 152	Intermediate Tennis	1
EXS 195	Introduction to Athletic Training	3
EXS 395	Lower Body Evaluation	3
EXS 420	Essentials of Strength & Conditioning	3
EXS 535	Applied Immunology	3

Additonal courses:

EXS 495	Directed Independent Study	0-4
EXS 497	Directed Independent Research	0-4



SCAN THE CODE FOR MORE DETAILS ON THE FULL CURRICULUM.

Creighton UNIVERSITY

STUDENT ORGANIZATIONS AND ACTIVITIES

Major's Club Exercise Science -Excellence in Leadership (EXSEL)

The mission of EXSEL is to cultivate strong leaders with the intent to:

- Establish a network among students, faculty, and professionals in the field of exercise science.
- Promote involvement in health-related activities on campus and in the community.
- Expose exercise science and pre-health professions majors to career options and professional opportunities.
- Encourage the development of leadership skills through various classroom and off campus professional activities.
- Participate in philanthropic events and service opportunities in the community.

Student Research Opportunities

Independent research is an important part of undergraduate education at Creighton University. Students within the Department of Exercise Science and Pre-Health Professions have the opportunity to work closely with faculty whose interests meet the diverse needs of our students and allows for interdisciplinary collaboration across the university