

HEALTH AND HUMAN PERFORMANCE, BACHELOR OF SCIENCE

What is Exercise Science

Few academic programs offer such diverse opportunities for employment and professional development upon graduation as Exercise Science. The Exercise Science curriculum prepares graduates with the knowledge and practical experience necessary for employment as exercise physiologist; strength and conditioning specialists; personal trainers, corporate, community and commercial fitness leaders. This major provides a strong background for those interested in pursuing a master's degree in exercise physiology or related field. The Exercise Science specialization is also an attractive curricular option for those intending to apply to professional programs in medicine and other allied health programs such as physical therapy, occupational therapy, physician's assistant, and cardiac rehabilitation.

Career Outlook

Students interested in applying for admission to a professional school in one of the allied health professions will find the science-based courses (e.g., Human Anatomy, Exercise Physiology, Human Physiology, Kinesiology, Nutrition, etc.) in the Exercise Science major to be of special interest because of their emphasis on the human body. The curriculum culminates with applied courses such as Test and Measurements and Internships that provides students with "hands on" practical experiences.

Student Internship Opportunities

Internship opportunities include, but are not limited to, spending 200 or more hours with mentors in physical therapy, occupational therapy, physician, commercial/corporate/community fitness, athletic training, personal training, and strength and conditioning clinics, and similar settings.

Degree Options

The exercise science concentration at ASU is offered through the Department of Health and Human Performance. Students in the exercise science specialization will earn the Bachelor of Science degree and be prepared for certification through the American College of Sports Medicine (ACSM) as Exercise Physiologist (EP-C), and the National Strength and Conditioning Association (NSCA) as Certified Strength and Conditioning Specialists (CSCS) and Certified Personal Trainers (CPT).

Upon completion of coursework, students perform a full-time 400-600 hour internship at an approved facility, compatible with career and employment goals.

Upon receipt of the baccalaureate degree, graduates are prepared for employment in the aforementioned areas, or for advanced studies in various branches of exercise science or related fields, such as medicine, physical therapy, and athletic training.

Web Sites

- American College of Sports Medicine – <https://www.acsm.org>
- American Physical Therapy Association – <http://www.apta.org>

- National Strength and Conditioning Association – <https://www.nasca.com>
- National Athletic Trainers Association – <http://www.nata.org>

Code	Title	Semester Hours
Core Curriculum for Non-STEM Majors (Areas A-E) (http://catalog.asurams.edu/undergraduate/core-curriculum)		42
Area F: Courses Related to Major		
BIOL 2411K	Human Anatomy and Physiology I	4
BIOL 2412K	Human Anatomy and Physiology II	4
HHUP 2213	Introduction to Health & Human Performance	3
Advisor approved electives		7
Area G - Major Requirements		
COHP 2110	Nutrition	3
HHUP 2289	Care & Preven of Athl Injuries	3
HHUP 2002	Fitness Assessment & Interpret	3
HHUP 3394	Theory & Psychology of Coaching	3
HHUP 3450	Basic Athletic Training	3
HHUP 3460	Kinesiology	3
HHUP 3470	Physiology of Exercise	3
HHUP 4090	Administration & Supervision of Recreation	3
HHUP 3300	Principles of Strength and Conditioning	3
HHUP 4482	Tests & Measurements in Health & Human Performance	3
Select one of the following courses:		3
HLTH 3320	Global Health	
HLTH 3330	African American Health Issues	
HLTH 3660	Current Issues in Health	
Free Elective Courses - 2000 to 4000-level		15
Free Elective Courses - 3000 to 4000-level		12
First-Year and Wellness Course Requirements Outside the Core		
ASU 1101	First Year Experience: Pathways to Success	1
HEDP, WELL	Health & Wellness Requirement ¹	2
Total Semester Hours		123

¹ The health & wellness requirement may be fulfilled by taking one - two (2) credit hour health or wellness course OR two one (1) credit hour health or wellness activity courses.

HLTH 3320. Global Health. (3 Credits)

The course will introduce students to the main concepts of the public health field and the critical links between global health and social and economic development. Students will get an overview of the determinants of health, and how wealth status is measured. The course will include the following issues from a global perspective: maternal and child health, communicable and non-communicable diseases, nutrition, and the environment. The course will be global in coverage but with a focus on low- and middle-income countries and on the health of the poor.

HLTH 3330. African American Health Issues. (3 Credits)

This course will explore numerous health issues affecting the African American community. An overview of African American health, a historical background in racial disparities in health care, specific health problems as they relate to African American children, women, men and the elderly will specifically be addressed. Violence, homicide and incarceration and how these social and environmental issues affect the African American community will be discussed in this course.

HLTH 3660. Current Issues in Health. (3 Credits)

HHUP 2000. Directed Study. (1 Credit)

This elective allows students to explore varied content under contracted supervision of a faculty. Specific content can be found in the syllabus of each offering.

HHUP 2002. Fitness Assessment & Interpret. (3 Credits)

This course provides students with practical experience including laboratory and field tests used for assessing physical fitness components as well as principles of exercise prescription. Test results are used in developing individualized exercise prescriptions to improve cardiorespiratory fitness, muscular fitness, bodyweight and body composition, and flexibility. Prerequisite or Corequisite: HHUP 3600.

HHUP 2213. Introduction to Health & Human Performance. (3 Credits)

This is an entry level course in health and human performance related fields. This course provides selected topics in the field of exercise science and other related health science disciplines, including Exercise science history, anatomy, exercise physiology, exercise epidemiology, exercise nutrition, biomechanics, and exercise and sport psychology. This course is designed to introduce you to the field and prepare you for future classes in the exercise science discipline.

HHUP 2214. Games of Low Organization. (2 Credits)

A study of activities based on the needs, interests and all age groups, emphasizing trust building activities, games, stunts, relays and rhythmic activities for playground, schools, and recreational areas and methods used in their presentation.

HHUP 2272. Fundamentals/Coaching of Football/Soccer. (2 Credits)

Fundamentals of teaching individual and team play, knowledge of offensive plays, most frequently used defenses and coaching strategies. Includes officiating.

HHUP 2276. Fundamentals/Coaching of Basketball/Volleyball. (3 Credits)

Fundamentals of teaching individual and team play, basic offensive patterns against selected defense, basic defense alignments against selected offensive patterns, coaching strategies, principles and procedures of organization and managing meets. Includes officiating.

HHUP 2289. Care & Prevent of Athl Injuries. (3 Credits)

A course designed to provide entry level knowledge in the field of sport related injuries. This course includes units dealing with the history of athletic training, basic anatomy of common injuries, evaluation techniques, preventative measures to reduce the incidences of injuries and knowledge of basic treatment procedures to be used after injuries occur. Legal and ethical issues will also be discussed.

HHUP 2319. Fundamentals/Coaching of Baseball/Softball. (2 Credits)

Stress fundamentals of teaching the basic skills in baseball: pitching, catching, batting, base running, infield and outfield plays, offensive and defensive strategy, organization and management. Includes officiating.

HHUP 2377. Fundamentals/Coaching of Track/Field. (3 Credits)

Fundamental procedure in conditioning and training for track and field events; a basic understanding of the individual basic skills for each event; coaching strategies, principles and procedures of organizing and managing meets.

HHUP 3300. Principles of Strength and Conditioning. (3 Credits)

This course is designed for students preparing for the National Strength and Conditioning Association (NSCA) Certified Strength and Conditioning Specialist (CSCS) certification or for students wishing to gain additional practical application of exercise science, strength training, and programming.

HHUP 3394. Theory & Psychology of Coaching. (3 Credits)

Basic theories, principles and psychology of coaching sports and athletics.

HHUP 3450. Basic Athletic Training. (3 Credits)

The didactic aspect of this course is problem-based and include case-based scenarios focusing on the evaluation process, management and treatment of orthopedic and neuromuscular injuries of the lower and upper extremities. Course content includes the evaluation process of injuries, plan of care, and evidence based medicine. Therapeutic modalities and rehabilitation will be emphasized. Prerequisite: HHUP 2289.

HHUP 3452. Advanced Athletic Training. (4 Credits)

This course emphasizes problem-based learning and includes case-based scenarios focusing on the evaluation process, management and treatment of orthopedic and neuromuscular injuries of the axial region. Course content includes the evaluation process of injuries, plan of care, and evidence based medicine. Therapeutic exercise/treatment modalities are emphasized and observation hours required. Prerequisite: HHUP 3450.

HHUP 3460. Kinesiology. (3 Credits)

Concerned with an analysis of human motion and the mechanical principles related to movement. Concentrated attention is given to the muscles which move individual joints. Laboratory demonstrations are conducted. Prerequisite: BIOL 2411K, BIOL 2412K.

HHUP 3470. Physiology of Exercise. (3 Credits)

Study of the effects of physical activities on the human organism and applied physiology. Laboratory demonstrations are concluded. Prerequisite: BIOL 1111K, BIOL 2411K, and BIOL 2412K.

HHUP 4002. Exercise for the Special Population. (3 Credits)

This course provides students with a basic understanding of the pathophysiology and exercise responses relative to disease of the cardiovascular, pulmonary, metabolic, neuromuscular, and immunologic systems. The material follows the disease-specific pathology and ACSM treatment guidelines while guiding students through exercise testing and training principles for clients with chronic diseases. Prerequisite: HHUP 3470.

HHUP 4090. Administration & Supervision of Recreation. (3 Credits)

This course is designed to provide a thorough investigation of organization, supervision, and administration policies and practices of governmental, institutional, public and private recreation agencies. Also, provides management and supervisory theories and practices in terms of establishing and maintaining the following: recreational programs, curriculum construction, community relations, physical plant personnel and student relations, and budget planning and policies.

HHUP 4482. Tests & Measurements in Health & Human Performance. (3 Credits)

Basic knowledge of measurement, data analysis, and evaluation for conducting the evidence-based practice in exercise/sport science and health related fields. Prerequisite: HHUP 2002, MATH 1113.