EXERCISE SCIENCE (BS)

Bachelor of Science

Exercise science is defined by the American College of Sports Medicine (ACSM) as "the study of physiological and functional adaptations to movement." A student majoring in exercise science will work with individuals to develop fitness and exercise programs. Others will help patients recover from chronic diseases and improve cardiovascular function, body composition and flexibility. In addition to working with this population, exercise science majors will work with athletes in developing sports-specific strength and conditioning programs to improve sports performance. Students graduating with a degree in exercise science are prepared to sit for the Certified Exercise Physiologist (EP-C) exam through the American College of Sports Medicine (ACSM) and become a Certified Strength and Conditioning Specialist through the National Strength and Conditioning Association (NSCA) required for employment by most agencies in the fitness industry.

Students majoring in exercise science will chose one of three emphases:

1. Sports Performance
2. Clinical Exercise Physiology (CEP), or
3. Athletic Training.

Graduates will work as certified personal trainers, certified strength and conditioning specialists, wellness or health promotion coordinators, certified cancer exercise trainers, or fitness experts in corporate or government facilities and military bases. This major is also a great launching pad for graduate studies in exercise science, sports psychology, exercise physiology, nutrition, physical therapy, and athletic training post-graduate programs.

Aurora University offers students the opportunity to earn a bachelor's degree in Exercise Science and a master's degree in Athletic Training in five years via a 3+2 dual degree option. Students majoring in exercise science – athletic training emphasis may apply to the master's degree program in the third year after completion of all outlined prerequisites. If admitted, they will begin their Master of Science in Athletic Training coursework during their fourth year while concurrently completing their Bachelor of Science degree in Exercise Science.

Program Requirements

Code	Title	Credits
Required Core Courses		
EXS-1000	Career Exploration in Exercise Science	2
EXS-3460	Sports Nutrition	4
EXS-2230	Olympic Style Weightlifting I	1
EXS-2235	Olympic Style Weightlifting II	1
EXS-3215	Kinesiology	4
EXS-3230	Physiology of Exercise	4
EXS-3550	Principles of Strength Training and Conditioning	4
HLS-2660	Anatomy and Physiology I	4
HLS-2670	Anatomy and Physiology II	4
Selected Emphasis		
Select one of the following emphases:		16-17
Sports Performance		
EXS-3240	Biomechanics	
EXS-3600	Research Methods in Exercise Science	
EXS-4120	Exercise Science Capstone	
EXS-4350	Advanced Sports Performance and Program Design	
EXS-4940	Exercise Science Internship	
Clinical Exercise Physiology (CEP)		
EXS-3250	Clinical Exercise Testing and Prescription	
EXS-3600	Research Methods in Exercise Science	
EXS-4020	Exercise & Physical Activity Management for Special Population	
EXS-4120	Exercise Science Capstone	
EXS-4940	Exercise Science Internship	
Pre-Athletic Training		
CHM-1200 & 1200Z	Principles of Chemistry and Principles of Chemistry Laboratory	
or CHM-1310/13	General Chemistry I	
BIO-1210 & 1210Z	General Biology I and General Biology I Laboratory	
HLS-1100	Medical Terminology	
EXS-2500	Prevention and Care of Athletic Injuries and Illness	
MTH-2100	Statistics	
PHY-2210 & 2210Z	General Physics I and General Physics I Laboratory	
PSY-1100	General Psychology	
Total Credits		**44-45**

Note: In addition to completing the Athletic training emphasis, students applying for the Master of Science in Athletic Training Dual Degree 3 + 2 Program will need to complete the following prerequisites by the end of the third year. Students must have a 3.00 cumulative undergraduate GPA by the start of the 5000-level courses otherwise the student will be removed from the Athletic Training emphasis. Please see the Graduate Catalog (https://catalog.aurora.edu/graduate/programs/master-science-athletic-training-msat/) for additional details about this program.

Code	Title	Credits
MTH-1310	Precalculus	4
MTH-2100	Statistics	4
Total Credits		**8**

Undergraduate Degree Requirements

A student who graduates from Aurora University with a baccalaureate degree will have met the following requirements:

1. Completion of all requirements for an approved major (with no grades lower than "C").
2. Overall completion of at least 120 semester hours of coursework with a GPA of at least 2.0 on a 4.0 scale (a course may be utilized only once in application toward a degree requirement, unless otherwise noted in the academic regulations). The 120 semester hours of coursework must include:
   - At least 52 semester hours completed at a senior college.
   - Residency Requirement - At least 30 semester hours completed at Aurora University, including the last 24 semester hours in the degree, and including at least 18 semester hours in the major. (Portfolio assessment credit, life and vocational experience credit,

off-campus experience credit, examination credit, participation credit, and block credit, shall not count toward the residency requirement).
    - Upper-Division Requirement - A minimum of 30 semester hours numbered 3000 or above. Of these 30 semester hours, 15 semester hours must lie within the major and 15 semester hours must be completed at Aurora University.
3. Completion of all General Education requirements (with no grades lower than "C"), as follows:
    - Quantitative and Formal Reasoning competency requirement (https://catalog.aurora.edu/regulations-policy-catalog/academic-regulations-procedures/general-education/#satisfy-quantitative-reasoning-requirement)
    - ENG-1000 Introduction to Academic Writing
    - IDS-1200 Discover What Matters or IDS-3040 Global Justice
    - IDS-1150 First Year Experience - *Not required for Transfer or AU Online students)*
    - Satisfactory participation in the junior-year mentoring and assessment process designed to guide students to successful completion of their degree and to encourage planning for next steps beyond graduation. (IDS-3500 Junior Mentoring Program I and IDS-3550 Junior Mentoring Program II - *Not required for ADC or AU Online students but may be designated electives for AU Online students admitted with fewer than 15 hours of transfer credit.)*
    - Distribution Requirements
      Students will complete one approved course[1] *from each of the following categories:*
        - Artistic Literacy
        - Cultural Literacy
        - Human Inquiry
        - Scientific Inquiry

    In addition to the above, ADC and Online students will also complete one approved course[1] *from the following category:*

        - Discovery and Reflection

[1] Only courses that are approved to meet the distribution requirement can be used toward this requirement. See the list of approved courses (https://catalog.aurora.edu/regulations-policy-catalog/academic-regulations-procedures/general-education/#approved-courses-gen-ed-distribution) for available options. Courses taken to meet distribution requirements are 4 semester hours apiece, with the following exceptions:
- An approved transfer course of at least 2.50 semester hours can be used to satisfy a distribution requirement.
- Courses with co-requisite laboratory components may be used to satisfy a distribution requirement, provided that the student successfully complete both the three-credit-hour course and the single-credit-hour lab component.

Learning Outcomes

1. Students will be able to assess nutritional status and account for its effect on exercise, athletic performance, and weight management.
2. Students will have an understanding of kinesthetic movement and the physiological effects of exercise.
3. Students will understand the various ways to engage in injury prevention and care.
4. Students will design, plan, implement and evaluate safe and effective health and/or exercise programs based on the specific populations and their desired performance or health outcomes.
5. Students will understand risk management and liability within a health and fitness environment.
6. Students will demonstrate the ability to work with clients and other exercise specialists on proper exercise techniques, test administration and evaluation, and problem-solving any challenges.