Exercise Science (BS)

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This program is offered by the College of Science and Health/ Natural Sciences and Mathematics Department and is only available at the St. Louis main campus.

STEM program

Program Description

The bachelor of science (BS) in exercise science provides an excellent academic foundation for students choosing to pursue graduate and professional degrees in a wide array of health careers, such as exercise physiology, occupational therapy, physical therapy, medicine and athletic training. Because these fields require post-baccalaureate degrees, students will need to take additional prerequisites that apply to their field of interest. Students who choose not to pursue a post-baccalaureate degree can pursue a career as a personal trainer, wellness coordinator, strength and conditioning coach or in corporate wellness.

Learning Outcomes

Upon completion of the exercise science program, students will be able to:

- Identify and integrate basic principles of Biology, Chemistry and Physics as they apply to human movement and kinesiology.
- Apply basic principles of human movement and kinesiology to clinical settings.
- Incorporate the best available evidence, their clinical skills, and the needs of the patient to maximize outcomes.
- Evaluate the differential impact of exercise science on diverse populations.
- Analyze findings from current scientific research from the disciples of exercise science.
- Discuss the importance of responsible global citizenship, professional attitude, and ethical behavior as it applies to their chosen profession.

Degree Requirements

For information on the general requirements for a degree, see Baccalaureate Degree Requirements under the Academic Policies and Information section of this catalog.

- 70 required credit hours
- Applicable University Global Citizenship Program hours
- Electives

Students must complete all courses in the major with a grade of C- or better.

Curriculum

The 70 credit hours required for the exercise science major include the following:

- BIOL 1550 Essentials of Biology I (4 hours)
  and BIOL 1551 Essentials of Biology I: Lab (1 hour)
- BIOL 2350 Nutrition (3 hours)
- BIOL 1610 Anatomy & Physiology I (3 hours)
  and BIOL 1611 Anatomy & Physiology I: Lab (1 hour)
- BIOL 1620 Anatomy & Physiology II (3 hours)
  and BIOL 1621 Anatomy & Physiology II: Lab (1 hour)
- BIOL 4400 Research Methods (3 hours)
- EXSC 1318 Careers in Exercise Science (1 hour)
- EXSC 1400 Foundations of Exercise Science (3 hours)
- EXSC 2100 Coaching Health and Human Performance (2 hours)
- EXSC 2356 Principles of Rehabilitation Sciences (3 hours)
- EXSC 3050 Exercise Physiology (3 hours)
- EXSC 3250 Kinesiology (3 hours)
  and EXSC 3251 Exercise Kinesiology: Lab (1 hour)
- EXSC 4680 Exercise Prescription and Testing (3 hours)
  and EXSC 4681 Exercise Testing and Prescription: Lab (1 hour)
- EXSC 4683 Exercise Prescription for Special Populations (3 hours)
- EXSC 4875 Exercise Science Internship (3 hours)
- CHEM 1100 General Chemistry I (3 hours)
  and CHEM 1101 General Chemistry I: Lab (1 hour)
- CHEM 1110 General Chemistry II (3 hours)
  and CHEM 1111 General Chemistry II: Lab (1 hour)
- PHYS 1710 College Physics I (3 hours)
  and PHYS 1711 College Physics I: Lab (1 hour)
- PHYS 1720 College Physics II (3 hours)
  and PHYS 1721 College Physics II: Lab (1 hour)
- PSYC 2300 Lifespan Development (3 hours)
- STAT 3100 Inferential Statistics (3 hours)
  or MATH 2200 Statistics (3 hours)
  or PSYC 2750 Introduction to Measurement and Statistics (3 hours)

Electives (minimum 3 credits)

Students choose from ONE of the following courses:

- BIOL 4430 Senior Thesis for BS in Biological Science (4 hours)
- BIOL 1800 Medical Terminology (3 hours)
- PSYC 3075 Stress Management (3 hours)
- PSYC 3125 Psychological Disorders (3 hours)
- PSYC 3150 Positive Psychology (3 hours)
- PSYC 4300 Health Psychology (3 hours)
- PSYC 4750 Advanced Statistics (3 hours)

Dual Major Option: Psychological Science/Exercise Science

Students who wish to pursue a dual major in exercise science and psychological science may do so. The two majors cannot be awarded separately or sequentially under this arrangement.

Degree Requirements

For information on the general requirements for a degree, see Baccalaureate Degree Requirements under the Academic Policies and Information section of this catalog. For information on the general requirements for dual degrees, see Dual Majors and Dual Degrees under the Academic Policies and Information section of this catalog.

- 120 required credit hours
- Applicable University Global Citizenship Program hours, with accommodations*

*All students pursuing a dual degree will complete the Global Citizenship Program requirements of one of the programs. Students should review the GCP accommodations for each degree before making their selection of which GCP program to pursue.

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- MATH 1430 College Algebra (3 hours)
- BIOL 1040 Human Genetics (3 hours)
- PSYC 1100 Introduction to Psychology (3 hours)
- PSYC 1800 Careers in Psychology (3 hour)
- PSYC 2750 Introduction to Measurement and Statistics (3 hours)
- PSYC 2825 Introduction to Research Methods (3 hours)
- PSYC 3025 Psychology and Ethics (3 hours)
- PSYC 3675 Professional Seminar in Psychology (3 hours)
- PSYC 3825 Psychological Research Design and Analysis (3 hours)
- PSYC 4750 Advanced Statistics (3 hours)
- PSYC 4825 Psychological Science Thesis (3 hours)
- Psychology electives *(at least 3 hours at the 4000-level)* (3 hours)
- Psychology content areas (15 hours)
- BIOL 1550 Essentials of Biology I (4 hours)
  and BIOL 1551 Essentials of Biology I: Lab (1 hour)
- BIOL 2350 Nutrition (3 hours)
- BIOL 1610 Anatomy & Physiology I (3 hours)
  and BIOL 1611 Anatomy & Physiology I: Lab (1 hour)
- BIOL 1620 Anatomy & Physiology II (3 hours)
  and BIOL 1621 Anatomy & Physiology II: Lab (1 hour)
- BIOL 4400 Research Methods (3 hours)
- EXSC 1318 Careers in Exercise Science (1 hour)
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  and PHYS 1711 College Physics I: Lab (1 hour)
- PHYS 1720 College Physics II (3 hours)
  and PHYS 1721 College Physics II: Lab (1 hour)

Elective (minimum 3 credits)

Students choose from ONE of the following courses (not already completed for program requirements):

- BIOL 4430 Senior Thesis for BS in Biological Science (4 hours)
- BIOL 1800 Medical Terminology (3 hours)
- PSYC 3075 Stress Management (3 hours)
- PSYC 3125 Psychological Disorders (3 hours)
- PSYC 3150 Positive Psychology (3 hours)
- PSYC 4300 Health Psychology (3 hours)