

EXERCISE SCIENCE, BACHELOR OF SCIENCE (BS)

This major has three options and is designed for those students who are not interested in teaching but are interested in fitness, wellness or clinical positions; or a graduate program in occupational therapy, physical therapy or exercise physiology. Students must complete two quarters of the appropriate science courses with required grades before they can declare Exercise Science and be admitted into the program. Everyone must complete the first appropriate CHEM course for their option. For the Pre-PT option they must complete CHEM 151 (or the equivalent) with a grade ≥ 3.0 , for the Pre-OT option they must complete CHEM 161 (or the equivalent) with a grade ≥ 3.0 , and for Exercise Science they must complete CHEM 161 (or the equivalent) with a grade ≥ 2.0 . The second science course can be the second chemistry course in the sequence (same grade requirements), Anatomy and Physiology (≥ 3.0 for Pre-PT and Pre-OT, or ≥ 2.0 for Exercise Science), or Physics for Pre-PT (≥ 3.0). Graduates are prepared to work in various settings as managers of fitness programs. The options include but are not limited to corporate fitness, commercial fitness clubs, a YMCA, or other non-commercial program, retirement centers or hospital rehabilitation programs in cardiac rehabilitation, respiratory therapy and diabetes support. The program prepares students to pursue advanced degrees in professional programs in occupational and physical therapy or chiropractic as well as advanced degrees in exercise physiology, biomechanics or cardiac rehabilitation and adult fitness. The program and course work prepares students to pursue certifications from organizations including ACSM, NASM, NSCA and ACE. These certifications are widely accepted in the fitness industry.

Note: For all students completion of any one of the three options as shown will not guarantee completion of 60 credits of upper division credits so all three will require additional courses to complete the general education requirement. Students should work with their advisor to select appropriate courses or minor.

Required Core Courses—a minimum GPA ≥ 2.5 is required for each required course listed below.

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| EXSC 301 | INTRODUCTION TO EXERCISE SCIENCE | 1 |
| EXSC 455 | RESEARCH AND ANALYSIS | 2 |
| EXSC 460 | PHYSIOLOGY OF EXERCISE | 4 |
| EXSC 480 | CLINICAL EXERCISE PHYSIOLOGY | 3 |
| EXSC 490 | SENIOR CAPSTONE IN EXERCISE SCIENCE | 4 |
| HLED 193 | STANDARD FIRST AID AND SAFETY | 2 |
| HLED 372 | APPLIED NUTRITION AND PHYSICAL FITNESS | 3 |
| PHED 349 | ANATOMICAL KINESIOLOGY | 4 |
| PHED 350 | PHYSIOLOGICAL KINESIOLOGY | 4 |
| PHED 352 | MECHANICAL KINESIOLOGY | 4 |

Required Supporting Courses—for Pre-PT and Pre-OT, a minimum GPA ≥ 3.0 is required for each course listed below. The minimum GPA for Exercise Science ≥ 2.0 for each required course listed below.

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| BIOL 232 | HUMAN ANATOMY AND PHYSIOLOGY NON-BIOL MAJORS | 5 |
| BIOL 233 | HUMAN ANATOMY AND PHYSIOLOGY NON-BIOL MAJORS | 5 |
| BIOL 234 | HUMAN ANATOMY AND PHYSIOLOGY NON-BIOL MAJORS | 5 |

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| CHEM 161 | GENERAL CHEMISTRY FOR THE HEALTH SCIENCES | 5 |
| CHEM 162 | ORGANIC CHEMISTRY FOR THE HEALTH SCIENCES | 5 |
| CHEM 163 | BIOCHEMISTRY FOR THE HEALTH SCIENCES | 5 |
| CSBS 320 | INTRODUCTORY STATISTICS FOR THE SOCIAL SCIENCES | 5 |

Choose two of the following—a minimum GPA ≥ 2.5 is required for each required course listed below.

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| EXSC 481 | ELECTROCARDIOLOGY INTERPRET | 4-6 |
| PHED 333 | GROUP EXERCISE INSTRUCTOR TRAINING | |
| PHED 334 | PERSONAL TRAINING | |
| PHED 335 | STRENGTH AND CONDITIONING PROLAB | |

Communications Elective—choose one course from the following—a minimum GPA ≥ 2.0 is required for each required course listed below.

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| BUED 302 | BUSINESS COMMUNICATION | 4-5 |
| CMST 312 | NONVERBAL COMMUNICATION | |
| CMST 331 | INTERVIEWING | |
| CMST 340 | INTERCULTURAL COMMUNICATION | |
| CMST 420 | HEALTH COMMUNICATION | |

Major Options—choose one of the three options to complete the BS. 15-28

Exercise Science—Required Courses

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| EXSC 488 | PROFESSIONAL INTERNSHIP (must complete 15 credits—a minimum GPA ≥ 2.5 is required) |
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Pre—Physical Therapy—Required Courses

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| EXSC 388 | EXERCISE SCIENCE PRACTICUM (a minimum GPA ≥ 2.5 is required) |
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Required Supporting Courses—a minimum GPA ≥ 3.0 is required for each course listed below.

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| PHYS 131 | INTRODUCTORY PHYSICS I |
| PHYS 132 | INTRODUCTORY PHYSICS II |
| PHYS 133 | INTRODUCTORY PHYSICS III |
| PHYS 161 | MECHANICS LABORATORY |
| PHYS 162 | HEAT AND OPTICS LABORATORY |
| PHYS 163 | INSTRUMENTATION LAB I |
| PSYC 302 | ABNORMAL PSYCHOLOGY |

Pre—Occupational Therapy—Required Courses

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| EXSC 388 | EXERCISE SCIENCE PRACTICUM (a minimum GPA ≥ 2.5 is required) |
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Required Supporting Courses—a minimum GPA ≥ 3.0 is required for each course listed below.

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| OCTH 101 | INTRODUCTION TO OCCUPATIONAL THERAPY |
| PSYC 201 | LIFE-SPAN DEVELOPMENT |
| PSYC 302 | ABNORMAL PSYCHOLOGY |

Total Credits 89-105

For information on General Education, see Undergraduate Degree (<http://catalog.ewu.edu/archives/2016-2017/undergraduate-degree>).

Student Learning Outcomes—students will

- demonstrate competency in foundational skills of reading, writing, arithmetic, speaking and listening and thinking skills demonstrating the ability to learn, to reason, to think creatively, to make decisions and to solve problems;

- be prepared for appropriate certification exams in the industry;
- demonstrate competency in fitness testing of the relatively healthy population in all components of fitness-cardiovascular, muscle strength, endurance, flexibility and body composition.