Exercise Science, Pre-Physical Therapy Emphasis, BS

Program Description

The Exercise Science bachelor's degree focuses on the science of human movement and its importance in maintaining or improving health, physical fitness and athletic performance. Coursework and selected emphases allow students to focus their studies on specific interests relative to career and graduate school pursuits.

Emphases within this degree program include:

- Exercise Science (generalist)
- Pre-Athletic Training
- Pre-Occupational Therapy
- Pre-Physical Therapy

Program Curriculum

120 credits

Utah Tech General Education Requirements

All Utah Tech General Education requirements must be fulfilled. A previously earned degree may fulfill those requirements, but courses must be equivalent to Utah Tech's minimum General Education standards in American Institutions, English, and Mathematics.

General Education Core Requirements (catalog.utahtech.edu/programs/generaleducation/#gerequirementstext)

Code	Title	Hours
English		3-7
Mathematics		3-5
American Institutions		3-6
Life Sciences		3-10
Physical Sciences		3-5
Fine Arts		3
Literature/Humanities		3
Social & Behavioral Sciences		3

Exercise Science Core Program Requirements

Code	Title	Hours
FAST 1300 & XSCI 1543	Beginning Swimming and First Aid / Resp Emergencies	3-4
or FAST 1301 & XSCI 1543	Intermediate Swimming and First Aid / Resp Emergencies	
or FAST 1315 & XSCI 1543	Aquatic Fitness and First Aid / Resp Emergencies	
or XSCI 1340	Lifeguarding/First Aid	
BIOL 2320 & BIOL 2325	Human Anatomy and Human Anatomy Lab	5
BIOL 2420 & BIOL 2425	Human Physiology and Human Physiology Lab	4
RSM 2070	Fundamentals of Sport and Leisure Management	3

XSCI 2020	Introduction to Exercise Science	3
or XSCI 1025	Intro to Sports Medicine	
or XSCI 2025	Introduction to Occupational Therapy	
XSCI 2060	Sport and Exercise Psychology	3
XSCI 2120	Principles of Fitness and Lifestyle Management	3
XSCI 2200	Nutrition for Sport and Exercise	3
XSCI 3700 & XSCI 3705	Physiology of Exercise and Physiology of Exercise Lab	4
XSCI 3370	Exercise Testing and Prescription	3
XSCI 3400	Activity Programming for Special Populations	3
XSCI 3500	Theories and Techniques for Teaching Fitness and Motor Skills	3
XSCI 3730	Biomechanics	3
or XSCI 3740	Clinical Biomechanics	
or XSCI 3750	Quantitative Biomechanics	
XSCI 3800	Measurement & Evaluation in Physical Exercise & Sports	3
or XSCI 3840	Measurement, Research, and Statistics in Exercise Science	
XSCI 4100	Physiology and Techniques of Strength and Power	3
XSCI 4200	Healthy Aging	3
XSCI 4300	Clinical Exercise Physiology	3
XSCI 4230	Applied Fitness Development for Aging and At-Risk Populations	3
XSCI 4400	Pediatric and Adolescent Fitness & Nutrition	3
XSCI 4600R	Exercise Science Internship	1-3
XSCI 3054	Motor Learning and Control	3
XSCI 3352	Motor Development	3

Pre-Physical Therapy Track Requirements

Code	Title	Hours
BIOL 1610 & BIOL 1615	Principles of Biology I (LS) and Principles of Biology I Lab (LAB)	5
CHEM 1210 & CHEM 1215	Principles of Chemistry I (PS) and Principles of Chemistry I Lab (LAB)	5
MATH 1040	Introduction to Statistics (MA)	3
MATH 1060	Trigonometry (MA)	3-5
or MATH 1080	Pre-Calculus with Trigonometry (MA)	
PHYS 2010 & PHYS 2015	College Physics I (PS) and College Physics I Lab	5
PHYS 2020 & PHYS 2025	College Physics II and College Physics II Lab	5
PSY 1010	General Psychology (SS, GC)	3
CHEM 1220	Principles of Chemistry II	4
CHEM 1225	Principles of Chemistry II Lab	1

Recommended Electives

Code	Title	Hours
To bring the total number of credits to no less than 120.		
BIOL 1620 & BIOL 1625	Principles of Biology II and Principles of Biology II Lab	5
CHEM 1220 & CHEM 1225	Principles of Chemistry II and Principles of Chemistry II Lab	5
HLOC 1000	Medical Terminology	2
XSCI 4890R	Undergraduate Research for Exercise Science	1-3

Graduation Requirements

1. Complete a minimum of 120 college-level credits (1000 and above).
2. Complete at least 40 upper-division credits (3000 and above).
3. Complete at least 30 upper-division credits at Utah Tech for institutional residency.
4. Cumulative GPA 2.5 or higher.
5. GPA of 2.0 or higher in Exercise Science Program Requirement courses.
6. Grade C- or higher in each Exercise Science Program Requirement course.

Graduation Plan

1st Year

Fall Semester	Hours	Spring Semester	Hours
First Year Recommended Elective	2	ENGL 2010	3
ENGL 1010	3	General Education (Fine Arts) (catalog.utahtech.edu/programs/generaleducation/#gerequirementstext)	3
MATH 1040	3	PSY 1010	3
BIOL 1610 & BIOL 1615	5	BIOL 1620 & BIOL 1625	5
XSCI 2020, 1025, or 2025	3	XSCI 2120	3
	16		**17**

2nd Year

Fall Semester	Hours	Spring Semester	Hours
BIOL 2320 & BIOL 2325	5	BIOL 2420 & BIOL 2425	4
PSY 1100 or FSHD 1500	3	MATH 1060	3
General Education (American Institutions) (catalog.utahtech.edu/programs/generaleducation/#gerequirementstext)	3	RSM 2070	3
General Education (LIterature/Humanities) (catalog.utahtech.edu/programs/generaleducation/#gerequirementstext)	3	XSCI 2200	3
XSCI 2060	3	XSCI 1340	3
	17		**16**

3rd Year

Fall Semester	Hours	Spring Semester	Hours
CHEM 1210 & CHEM 1215	5	CHEM 1220 & CHEM 1225	5
XSCI 3352	3	XSCI 3054	3
XSCI 3500	3	XSCI 3370	3
XSCI 3700 & XSCI 3705	4	XSCI 3730	3
		XSCI 3840	3
	15		**17**

4th Year

Fall Semester	Hours	Spring Semester	Hours
PHYS 2010 & PHYS 2015	5	PHYS 2020 & PHYS 2025	5
PSY 2400	3	XSCI 4100	3
XSCI 3400	3	XSCI 4230	3
XSCI 4200	3	XSCI 4400	3

XSCI 4300	3 XSCI 4600R	1-3
	17	**15-17**

Total Hours 130-132

BS Exercise Science Program Learning Outcomes

At the successful conclusion of this program, students will be able to:

1. Illustrate physiological, psychomotor, developmental, and biomechanical responses during exercise in multiple environments and populations.
2. Assess, develop, and adjust an appropriate exercise program for different populations.
3. Develop appropriate exercise techniques and mechanics to optimize movement along with additional strategies to improve exercise compliance, retention, and motivation.
4. Evaluate research while applying evidence-based decision-making skills.
5. Recommend and create an effective environment in which sport, exercise, and physical activity can be integrated.