

# Exercise Science, Pre-Athletic Training 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.

Code	Title	Hours
General Education Core Requirements ( <a href="http://catalog.utahtech.edu/programs/generaleducation/#gerequirementstext">catalog.utahtech.edu/programs/generaleducation/#gerequirementstext</a> )		
English		3-7
Mathematics		3-5
American Institutions		3-6
Life Sciences		3-10
Physical Sciences		3-5
Laboratory Science		0-1
Fine Arts		3
Literature/Humanities		3
Social & Behavioral Sciences		3
Exploration		3-5

### Exercise Science Core Program Requirements

Code	Title	Hours
BIOL 2320 & BIOL 2325	Human Anatomy and Human Anatomy Lab	5
BIOL 2420 & BIOL 2425	Human Physiology and Human Physiology Lab	4
FAST 1300 & XSCI 1543 or FAST 1301 & XSCI 1543 or FAST 1315 & XSCI 1543 or XSCI 1340	Beginning Swimming and First Aid / Resp Emergencies Intermediate Swimming and First Aid / Resp Emergencies Aquatic Fitness and First Aid / Resp Emergencies Lifeguarding/First Aid	3-4
XSCI 2020	Introduction to Exercise Science	3
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 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 3700 & XSCI 3705	Physiology of Exercise and Physiology of Exercise Lab	4
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
RSM 2070	Fundamentals of Sport Management	3
Choose one of the following course sets:		
XSCI 3052 & XSCI 3350	Psychophysiology of Motor Control and Motor Learning and Development	6
OR		
XSCI 3054 & XSCI 3352	Motor Learning and Control and Motor Development	6

## Pre-Athletic Training Track Requirements

Code	Title	Hours
BIOL 1610 & BIOL 1615	Principles of Biology I (LS) and Principles of Biology I Lab (LAB)	5
CHEM 1010	Introduction to Chemistry (PS) (or higher Lab not required)	3
MATH 1040	Introduction to Statistics (MA)	3
PHYS 1010	Elementary Physics (PS) (or higher Lab recommended but not required)	3
PSY 1100 or FSHD 1500	Human Development Through Lifespan (SS, GC) Human Development Lifespan (SS, GC)	3
<b>Total Hours</b>		<b>17</b>

## 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) ( <a href="http://catalog.utahtech.edu/programs/generaleducation/#gerequisitestext">catalog.utahtech.edu/programs/generaleducation/#gerequisitestext</a> )	3
MATH 1040	3 PSY 1010	3
BIOL 1610 & BIOL 1615	5 XSCI 2120	3

XSCI 2020	3 Electives	3
	<b>16</b>	<b>15</b>
<b>2nd Year</b>		
<b>Fall Semester</b>	<b>Hours Spring Semester</b>	<b>Hours</b>
BIOL 2320 & BIOL 2325	5 BIOL 2420 & BIOL 2425	4
PSY 1100 or FSHD 1500	3 RSM 2070	3
General Education (American Institutions) (catalog.utahtech.edu/ programs/generaleducation/ #gerequirementstext)	3 XSCI 1340	3
General Education (Literature/ Humanities) (catalog.utahtech.edu/ programs/generaleducation/ #gerequirementstext)	3 XSCI 2200	3
XSCI 2060	3 Electives	3
	<b>17</b>	<b>16</b>
<b>3rd Year</b>		
<b>Fall Semester</b>	<b>Hours Spring Semester</b>	<b>Hours</b>
CHEM 1010	3 PHYS 1010	3
XSCI 3352	3 XSCI 3054	3
XSCI 3500	3 XSCI 3370	3
XSCI 3700 & XSCI 3705	4 XSCI 3730	3
Electives	3 XSCI 3840	3
	<b>16</b>	<b>15</b>
<b>4th Year</b>		
<b>Fall Semester</b>	<b>Hours Spring Semester</b>	<b>Hours</b>
XSCI 3400	3 XSCI 4100	3
XSCI 4200	3 XSCI 4230	3
XSCI 4300	3 XSCI 4400	3
Electives	6 XSCI 4600R	1-3
		Electives 3
	<b>15</b>	<b>13-15</b>

**Total Hours 123-125****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.