Biology - Biomedical Science Emphasis, BS

Program Description

The B.S. Biomedical Science emphasis is designed for students seeking a career in the medical field. This includes students looking to apply to medical school (M.D. & D.O.), dental school, pharmacy school, podiatry school, optometry school, and other health-related, professional schools.

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

Code	Title	Hours
Biology Core Requirements		
BIOL 1610 & BIOL 1615	Principles of Biology I (LS) and Principles of Biology I Lab (LAB)	5
BIOL 1620 & BIOL 1625	Principles of Biology II and Principles of Biology II Lab	5
BIOL 3010	Evolution	3
BIOL 3030	Principles of Genetics	3
BIOL 3040	General Ecology	3
Other Degree Requirements		
CHEM 1210 & CHEM 1215	Principles of Chemistry I (PS) and Principles of Chemistry I Lab (LAB)	5
CHEM 1220 & CHEM 1225	Principles of Chemistry II and Principles of Chemistry II Lab	5
CHEM 2310 & CHEM 2315	Organic Chemistry I and Organic Chemistry I Lab	5
CHEM 2320 & CHEM 2325	Organic Chemistry II and Organic Chemistry II Lab	5
CHEM 3510 & CHEM 3515	Biochemistry I and Biochemistry I Lab	4

Complete one (1) of the following series of courses:

PHYS 2010 & PHYS 2015 & PHYS 2020 & PHYS 2025	College Physics I (PS) and College Physics I Lab and College Physics II and College Physics II Lab	10
or PHYS 2210 & PHYS 2215 & PHYS 2220 & PHYS 2225	Physics/Scientists Engineers I (PS) and Physics/Scientists Engineers I Lab and Physics/Scientists EngineersII and Physics/Scientists Engineers II Lab	
Additional Biology Requirements		
BIOL 2320 & BIOL 2325	Human Anatomy and Human Anatomy Lab	5
BIOL 3420	Advanced Human Physiology	3
BIOL 3150 & BIOL 3155	Biostatistics and the Scientific Method and Scientific Method and Experimental Design	4
BIOL 3450 & BIOL 3455	General Microbiology and General Microbiology Lab	4
or BIOL 3550 & BIOL 3555	Eukaryotic Cell Biology and Eukaryotic Cell Biology Lab	
BIOL 4910	Senior Seminar	1
Complete one (1) of the following Technical Laboratory Courses		
BTEC 2010	DNA Methods and Analysis	2
BTEC 2020	Protein Purification and Analysis	2
BTEC 2030	Cell Culture Techniques	2
BTEC 2050	Zebrafish Maintenance & Methodology	2
BIOL 2300	Fundamentals of Bioinformatics	2
Social & Behavioral Sciences		**3**
Complete one (1) psychology courses from among the following		
PSY 2400	Psychology of Abnormal Behavior	3
PSY 3460	Health Psychology	3
PSY 3710	Behavioral Neuroscience	3
Electives		
Ethics Requirement (Pick one of three)		
BIOL 3100	Bioethics	3
PHIL 3550	Medical Ethics	3
PHIL 3555	Tech Ethics	3
Complete at least 12 credits of upper-division BIOL or BTEC coursework not already used to fulfill another requirement. Courses from the following list may also be used to fulfill this requirement:		
CHEM 3520 & CHEM 3525	Biochemistry II and Biochemistry II Lab	
MATH 1210	Calculus I (MA) (Technical Laboratory Courses)	

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 2.0 or higher.
5. Grade C- or higher required in each Program Requirement, Core Discipline Requirement, and Biology Elective Requirement course.
6. Maximum 6 total credits of BIOL 4810R, and/or BIOL 4890R, and/or BIOL 4930R may be used toward Biology requirements.