

High School to College and Career Pathway: Secondary

Career and Technical Education: Preparing Students for College and Career!



Area of Study: Health Science Education

Pathway: Biotech Research and Development – Biotechnology

Get the Facts

Biotechnology is predicted to be one of the most important applied sciences of the 21st century.

Workforce Trends

While biotechnology is still in its infancy, it is a dynamic career field that is expanding by leaps and bounds. "Biotechnology has become the centerpiece of therapy of all ailments, from heart disease and cancers to the common cold," says Carl B. Feldbaum, president of the Biotechnology Industry Organization (BIO).



CAREER AND TECHNICAL EDUCATION Recommended Pathway Courses

(Students may select individual courses for exploration, or a complete Pathway for an in-depth focus.)

CLASS AVAILABILITY MAY VARY AT YOUR HIGH SCHOOL

Course #	Foundation Courses: (required)	Credit
51.1201	Biotechnology	1.00
Elective Courses:		
51.0001	Health Science, Introduction	.50
51.1399	Medical Anatomy & Physiology	1.00
51.0799	Medical Terminology	.50
51.9999	Medical Math	.50
51.1004	Medical Forensics	1.00
51.1199	Health Science, Advanced (capstone course)	1.00
32.0199	Student Internship (Critical Workplace Skills)	.50

1.00 credit

2.00 credits

3.00 credits for completion

Biotechnology is:

- > High skill
- > High demand

Sample Career Occupations

- > Biochemist
- > Biotechnology Technician
- > Health Science Education Teacher
- > Immunohematologist
- > Laboratory Asst.
- > Microbiologist
- > Toxicologist

Middle School		State Requirements		High School Suggested Education Plan				College and Career
7th Grade	8th Grade	Middle School	High School	9th Grade Suggested	10th Grade Suggested	11th Grade Suggested	12th Grade Suggested	Beyond High School
Language Arts 7 1.00	Language Arts 8 1.00	2.00	Language Arts 4.00	Language Arts 9 1.00	Language Arts 10 1.00	Language Arts 11 1.00	Language Arts 12 1.00	There are a number of options for education and training beyond high school, depending on your career goals. <ul style="list-style-type: none"> > Certificate > Associate degree > Bachelor's degree > Professional degree > On-the-job training > Apprenticeship > Military training For more information on salary projections, labor market demand, and training options, visit www.utahfutures.org .
Math * 1.00	Math * 1.00	2.00	Math 3.00	Math * 1.00	Math * 1.00	Math * 1.00	Medical Math .50	
Science .50	Science 1.00	1.50	Science 3.00	Biology or Human Biology 1.00	Chemistry 1.00	Additional credit 1.00		
Utah Studies .50	U.S. History I 1.00	1.50	Social Studies 3.00	Geography for Life .50	World Civilizations .50	U.S. History II 1.00	U.S. Government and Citizenship .50	
P.E. 1.00	Health .50	1.50	P.E./Health 2.00	Participation Skills and Techniques .50	Fitness for Life .50 / Health Education .50 Lifetime Activities or Sport .50			
The Arts .50	The Arts .50	1.00	Fine Arts 1.50	Fine Arts Courses 1.50				
Keyboarding .50			Computer Tech. .50	Computer Technology .50				
CTE Intro 1.00		1.00	CTE 1.00	Refer to Career and Technical Education box above.				

* Talk to your school counselor about math requirements in the new common core curriculum. Core curriculum and elective requirements may vary district to district.

Concurrent enrollment course offerings vary by school and district. Many Utah postsecondary programs accept high school courses toward a two- or four-year degree through concurrent enrollment. Check regional postsecondary Pathways for details.