

Biotechnology: CP and AS

in a competency-based format



- Curriculum and laboratory experiences designed around the needs of biotech employers in the Salt Lake Valley
- Online resources available 24/7
- Students attend open lab (with evening and weekend hours) as their schedule permits
- Work at your own pace to finish faster, or spend more time to master the difficult things
- Finish a course early? Add another during the 12-week or half-semester add periods!
- Certificate of Proficiency available after the first 16 credits of Biotech courses (no generals)
- AS degree adds two more credits of Biotech, plus Gen Ed, Biology, and Chemistry (61 credits total)
- AS transfers to UVU BS in Biotechnology, with UVU classes taught on SLCC campus

www.slcc.edu/biotech



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SLCC Biotech Program Course Competencies effective fall 2018

Certificate of Proficiency 16 credits

BTEC 1000 Biotechnology: Engineering Life (3 credits) Gen Ed Global Learning

The student explains how biotechnology can both benefit and harm the global population.
The student genetically alters a living organism.
The student purifies a protein.
The student analyzes their own DNA for specific traits.

BTEC 1100 Applied Molecular Biology (4 credits)

The student completes calculations and measurements related to the field of biotechnology.
The student completes basic microbiology processes.
The student conducts a series of reactions to manipulate DNA.

BTEC 1200 Aseptic Technique (1 credit)

The student demonstrates aseptic technique.

BTEC 1300 Introduction to Regulations and Quality (2 credits)

The student applies the federally mandated Quality System (QS) Regulation / Medical Device Good Manufacturing Practices (21 CFR 820) to the manufacturing process.
The student manufactures a product according to federal regulations and guidelines.
The student applies continuous improvement and lean manufacturing concepts to the manufacturing process.

BTEC 2000 Biotechnology Experience (3 credits)

The student demonstrates basic skills when working in a manufacturing lab.
The student demonstrates basic skills when working in a research lab.
The student completes their internship hours in InnovaBio®, STUDENTfacturED®, or another approved facility.
The student presents a plan for an evidence-based research project.
The student completes a faculty-approved project.

BTEC 2020 Biomolecular Separation and Analysis (3 credits)

The student explains the four levels of protein structure.
The student expresses a protein of interest.
The student separates molecules using chromatography.
The student separates proteins using SDS-PAGE.
The student determines the turnover rate of an enzyme.

Associate of Science 61 credits total, including Gen Ed, Biology, Chemistry

BTEC 2030 Cell Culture (1 credit)

The student maintains a mammalian cell line.

BTEC 2200 Advanced Molecular Methods (1 credit)

The student analyzes samples using quantitative PCR.
The student performs targeted mutagenesis.

AS transfers to UVU
Bachelor of Science in
Biotech. UVU courses are
taught at SLCC, so BS can
be completed without
commuting to Orem.



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