

BIOTECHNOLOGY LAB TECHNICIAN, C.S.C.

Location(s): MA

NOVA Code: 221-149-01

Purpose

This program is designed for persons wishing to enhance their employment options or retrain for a career as a laboratory technician in various biotechnology disciplines. Students interested in this certificate may include career changers who already have a bachelor's degree, scientists who were trained in foreign countries who need updated training, current A.S. in Science (<https://catalog.nvcc.edu/programs/science-as/>) students who want to obtain a core of biotechnology courses and/or find a job in local industry while they complete their undergraduate degrees, and high school teachers who wish to refine their own biotechnology skills and obtain the required retraining necessary for continued teacher certification.

Application Process

Students applying to the Biotechnology Lab Technician Career Studies Certificate must complete all of the pre-admission requirements as outlined for the A.A.S. in Biotechnology (<https://catalog.nvcc.edu/programs/biotechnology-aas/>) with the exception that applications will only be accepted for students enrolling in the Fall Semester (August 1). In addition, a student must have completed a college degree (associate of science or higher). Foreign students must document the U.S. equivalent to an associate degree. Students without a science degree are strongly advised to complete the A.A.S. in Biotechnology (<https://catalog.nvcc.edu/programs/biotechnology-aas/>) instead of the career studies certificate.

Prerequisites

Because jobs in biotechnology generally require at least an associate degree, in a science field, students must already have a 2-year or 4-year college degree, be enrolled in the A.S. in Science (<https://catalog.nvcc.edu/programs/science-as/>), or obtain permission from the Biotechnology program coordinator in order to be placed into this program. BIO 101 General Biology I is a prerequisite of all of the biotechnology courses in this program.

Students who have degrees in non-science fields are strongly encouraged to complete the A.A.S. in Biotechnology (<https://catalog.nvcc.edu/programs/biotechnology-aas/>).

One Year

Course	Title	Credits
1st Semester		
BIO 147	Basic Laboratory Calculations for Biotechnology	1
BIO 165	Principles in Regulatory and Quality Environments for Biotechnology	2
BIO 250	Biotechnology Research Methods and Skills	3
BIO 253	Biotechnology Concepts	3
Select one of the following ENG or CST Electives:		3
ENG 111	College Composition I	
ENG 115	Technical Writing	
CST 100	Principles of Public Speaking	
CST 110	Introduction to Human Communication	

CST 126	Interpersonal Communication	
CST 229	Intercultural Communication	
Credits		12
2nd Semester		
BIO 180	Introduction to Careers in Biotechnology	1
BIO 251 or BIO 252	Protein Applications in Biotechnology or Nucleic Acid Methods	4
BIO 254	Capstone Seminar in Biotechnology	2
BIO 255	Bioinformatics and Computer Applications in Biotechnology	2
Credits		9
3rd Semester		
BIO 296	On-Site Training in: ¹	3
Credits		3
Total Credits		24

¹ Students must be approved by the Biotechnology program coordinator(s) for an internship. Criteria for approval include successful completion of biotechnology courses (including a demonstrated proficiency of basic lab skills), a professional work ethic, and an ability to work well with others. Please see a Biotechnology academic advisor for assistance in determining eligibility and placement or for approval of a topic for a Project or Supervised Study.