

BASIC BIOTECHNOLOGY CERTIFICATE

Award: Certificate in Basic Biotechnology

No. of credits required: 16

For more information: Contact Associate Professor Jaclyn Madden, 443-412-2046, jmadden@harford.edu (August 15 - June 15); stem@harford.edu; or Admissions, 443-412-2109.

Behavioral/Social Science (GB)
English Composition (GE)
Arts/Humanities (GAH)
Interdisciplinary and Emerging Issues (GI)
Biological/Physical Laboratory Science (GL)
Mathematics (GM)
Biological/Physical Science (GS)

Program Description

The Biotechnology Basic Certificate prepares students for careers as entry-level biotechnicians in the laboratory or in biomanufacturing. The certificate provides students with baseline skills identified by biotechnology industry members as necessary for entry-level employment, including good documentation practices, current good manufacturing practices, and techniques common to bioscience laboratories. This certificate program is suitable for students seeking entry-level employment, or those who seek to augment existing laboratory skills obtained through employment or a biology degree to increase their opportunities for employment in the biotechnology industry. Courses in this certificate apply towards the Biotechnology Certificate and the Associate of Applied Sciences Degree in Biotechnology.

Program Goals

1. Explain basic principles, concepts, and techniques of biotechnology.
2. Execute biotechnology laboratory tasks utilizing Standard Operating Procedures (SOPs) and Current Good Manufacturing Practices (CGMPs).
3. Demonstrate critical thinking and scientific process skills.
4. Demonstrate professional judgement and behaviors that adhere to principles of the responsible conduct of research.

Certificate Requirements

In order to earn a certificate from Harford Community College, students must demonstrate basic competencies in English, reading, and mathematics by completing: ENG 018 Integrated Reading and Writing, MATH 020 Pre-Algebra I, and/or a qualifying exam must be passed.

Required Courses

Code	Title	Credits
BIO 120	General Biology I (GL)	4
BIO 128	Introduction to Biotechnology	4
BIO 212	Principles of Biomanufacturing	4
Select one of the following:		4
BIO 205	Microbiology (GL)	
BIO 213	Cell Culture Techniques	
BIO 214	Molecular Techniques	
BIO 215	Immunology Principles and Applications	
Total Credits		16

General Education Degree Requirements

Note: The following codes identify courses which satisfy the General Education Degree Requirements: