## **Bioproduction Associate of Applied Science**

General Program Information: 410 287-1000 or information@cecil.edu

This program offers an introduction to the field of Bioprocessing. This exciting new field harnesses cellular processes to create vital industrial and medical products. Students will be introduced to the requisite skills and knowledge for either a transfer to a four-year program or entry level positions in the industry. Job Prospects: Bioprocessing Specialist, Bioprocessing Engineer.

	General Education Requirements	General Education Code	Credits
HUM 101	Introduction to Critical Inquiry	Н	3
EGL 101	College Composition	Е	3
EGL 102	Composition and Literature	Н	3
MAT 127	Introduction to Statistics	M	4
BIO 130 and	Principles of Biology I and	S	3
BIO 131	Principles of Biology I Lab		1
CIS 101	Introduction to Computer Concepts	I	3
SPH 121	Interpersonal Communication	Н	3
SOC SCI	Social Science Elective	SS	3

	Program Requirements	General Education Code	Credits
BIO 132 and	Principles of Biology II and	S	3
BIO 133	Principles of Biology II Lab		1
BIO 200 and	Microbiology and	S	3
BIO 210	Microbiology Lab		1
BIP 101	Introduction to Biotechnology		4
BIP 102	Biotechnology Laboratory Techniques	SL	4
BIP 201	Introduction to Bioprocessing	SL	4
BIP 202	College Based Work Experience - BIP		4
CHM 103 and	General Chemistry I and	S	3
CHM 113	General Chemistry I Lab		1
CHM 104 and	General Chemistry II and	S	3
CHM 114	General Chemistry II Lab		1
MAT or SCI elective	Math, Science or Engineering Elective	M,S/SL	2

Total Credits Required in Program: 60

## **Program Learning Goals:**

- > Demonstrate competency with appropriate laboratory instruments and techniques
- Using critical thinking, be able to evaluate the validity of data
- Recognize, design and produce a report on a research project
- > Perform upstream and downstream processing for the production of biological products