

## Bioproduction Associate of Applied Science

General Program Information: 410 287-1000 or [information@cecil.edu](mailto: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.

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

	<i><b>Program Requirements</b></i>	<i><b>General Education Code</b></i>	<i><b>Credits</b></i>
BIO 132 and BIO 133	Principles of Biology II and Principles of Biology II Lab	S	3 1
BIO 200 and BIO 210 or BIO 222 and BIO 232	Microbiology and Microbiology Lab or Genetics and Genetics Lab	S	3 1 3 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		3
CHM 103 and CHM 113	General Chemistry I and General Chemistry I Lab	S	3 1
CHM 104 and CHM 114	General Chemistry II and General Chemistry II Lab	S	3 1
MAT or SCI elective	Math, Science or Engineering Elective	M,S/SL	3

***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