

Rowan College of South Jersey
BIOLOGY – Bioscience Technologies Option
Associate in Science (A.S.) – Transfer
 Program Requirements

This option to our existing A.S. Biology program provides students with the basic course requirements necessary to satisfy the first three years of a baccalaureate degree in Bioscience Technologies (Biotechnology, Cytotechnology, Medical Technology) at a transfer institution. A “C” grade or better in each course is required for transfer. Biotechnology is the field in which biological and engineering principles are used to develop products and techniques for advances in gene therapy, new tests to diagnose and pharmaceuticals to treat a variety of diseases, or new ways of studying the molecular and genetic structure of cells.

In addition to the outcomes stated for the A.S. biology program, students who have completed this option will be able to:

- Apply biological principles to solve problems in health care and in the design of pharmaceutical products.
- Possess the laboratory techniques and skills necessary to contribute to the design, research, development and pre-clinical testing of diagnostic and therapeutic agents, methods, and systems for health care.
- Possess specific technical and problem-solving skills required for biomedical settings in the medical, pharmaceutical and industrial chemical industries.

Required Core and Elective Courses

	<u>Credits</u>
<u>Communications</u>	
ENG 101 English Composition I	3
ENG 102 English Composition II	3
<u>Humanities</u>	
___ ___ Humanities Elective	3
<u>Social Science</u>	
___ ___ Social Science Elective	3
___ ___ Social Science or Humanities Elective	3
<u>HPE</u> ___ Health and Physical Education Elective	1-3
<u>Mathematics</u>	
MAT 107 Pre-Calculus and Math Analysis	4
MAT 108 Calculus I	4
<u>Science</u>	
BIO 101 General Biology I	4
BIO 102 General Biology II	4
BIO 105 Anatomy and Physiology I	4
BIO 106 Anatomy and Physiology II	4
BIO 209 Ecology	4
BIO 215 Microbiology	4
BIO 221 Cell and Molecular Biology	4
CHM 111 General Chemistry I	4
CHM 112 General Chemistry II	4
CHM 201 Organic Chemistry I	4
<u>TOTAL MINIMUM CREDITS:</u>	64

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Four Semester Sequence of Courses

<u>FIRST YEAR - Fall Semester</u>			<u>Credits</u>
_____	ENG 101	English Composition I	3
_____	BIO 101	General Biology I	4
_____	CHM 111	General Chemistry I	4
_____	MAT 107	Pre-Calculus and Math Analysis	4
			15
<u>Spring Semester</u>			
_____	ENG 102	English Composition II	3
_____	BIO 102	General Biology II	4
_____	CHM 112	General Chemistry II	4
_____	MAT 108	Calculus I	4
			15
<u>SECOND YEAR - Fall Semester</u>			
_____	BIO 209	Ecology	4
_____	BIO 215	Microbiology	4
_____	_____	Social Science Elective	3
_____	_____	Humanities Elective	3
_____	BIO 105	Anatomy and Physiology I	4
			18
<u>Spring Semester</u>			
_____	CHM 201	Organic Chemistry I	4
_____	BIO 221	Cell and Molecular Biology	4
_____	_____	Social Science or Humanities Elective	3
_____	HPE _____	HPE Elective	1-3
_____	BIO 106	Anatomy & Physiology II	4
			16-18
		<u>TOTAL MINIMUM CREDITS:</u>	64

Students planning to transfer to Thomas Jefferson University will require two additional courses selected from the following options: BIO 140, CHM 202, CSC 101 or CSC 111, HPE 136, or PHY 103.