

Gloucester County College
BIOLOGY
Associate in Science (A.S.) – Transfer
Program Requirements

For those students interested in a biology-oriented career (pre-med, environmental science, forestry, etc.) this program provides a concentrated study of the first two years towards a baccalaureate degree. Although science and math are stressed, humanities and social science electives aid in providing a broad educational experience. Students are advised to check the requirements of their anticipated vocation or bachelor's degree program at the college to which they intent to transfer.

Students who have completed the program will be able to:

- Demonstrate application of theoretical concepts and fundamental principles in the biological sciences, including use of the scientific method.
- Conduct background research on life science topics to make educated conclusions and demonstrate ability to access and assess information including understanding of basic concepts, processes and keywords necessary to explore topics.
- Communicate with others in written and oral form and present life science information effectively.
- Operate basic laboratory equipment successfully including microscopes, measurement devices, and computer technologies.
- Apply critical thinking and problem solving skills to solving biology-based problems including utilizing statistics and graphical analyses.

Required Core and Elective Courses

	<u>Credits</u>
<u>Communications</u>	
COM 101 English Composition I	3
COM 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>Computer Science</u>	
CSC 101 Introduction to Programming	4
CSC 111 Intermediate Programming	4
	or
<u>Science</u>	
BIO 101 General Biology I	4
BIO 102 General Biology 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
CHM 202 Organic Chemistry II	4
<u>General Education</u>	
___ ___ General Education Elective	3-4
___ ___ General Education Elective	3-4
<u>TOTAL MINIMUM CREDITS:</u>	66

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Four Semester Sequence of Courses

<u>FIRST YEAR - Fall Semester</u>			<u>Credits</u>
_____	COM 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>			
_____	COM 102	English Composition II	3
_____	BIO 102	General Biology II	4
_____	CHM 112	General Chemistry II	4
_____	MAT 108	Calculus I	4
_____	HPE _____	Health and Physical Education Elective	1-3
			16-18
<u>SECOND YEAR - Fall Semester</u>			
_____	CHM 201	Organic Chemistry I	4
_____	BIO 209	Ecology	4
_____	_____	Social Science Elective	3
_____	_____	Humanities Elective	3
_____	CSC 101	Introduction to Programming or	
_____	CSC 111	Intermediate Programming	4
			18
<u>Spring Semester</u>			
_____	CHM 202	Organic Chemistry II	4
_____	BIO 215	Microbiology or	
_____	BIO 221	Cell and Molecular Biology	4
_____	_____	Social Science or Humanities Elective	3
_____	_____	General Education Elective	3-4
_____	_____	General Education Elective	3-4
			17-19
		<u>TOTAL MINIMUM CREDITS:</u>	66