

Biology

BIOLOGY DEPARTMENT

Associate in Science (A.S.) Degree

Students choose from a traditional biology major curriculum or an option designed to prepare them for pre-physical therapy, pre-occupational therapy or pre-physician's assistant programs. These curricula parallel the first two years of a baccalaureate degree in biology. The traditional biology major prepares students, upon graduation, to transfer to a four-year college or university to pursue a career in biology related fields such as molecular biology, cell biology, physiology, microbiology, biochemistry, ecology or any biological field. Students interested in pre-medicine, pre-dentistry, pre-chiropractic or pre-veterinary may major in either the Biology preprofessional or Chemistry Science Transfer major. Contact the department chair for assistance in choosing an appropriate major.

■ What will students learn if they study Biology Transfer or Biology Pre-Professional Degree Options?

They concentrate on the theoretical and applied sciences, and mathematics. Their studies prepare them to meet the challenges of advanced study in professional careers.

■ Are there any requirements that must be satisfied before taking courses in the major?

A passing score on the College's placement mathematics test for both Algebra I and Algebra II or MAT 013 and MAT 014 is required for all biology majors. In addition, a high school laboratory biology course with a minimum grade of "C" or BIO 010 and a high school laboratory chemistry or CHM 010 with a minimum grade of "C" are also required.

■ Can Biology majors transfer to a four-year college or university?

The Statewide Transfer Agreement for New Jersey ensures that students who earn an A.A. or A.S. degree at a community college will have those credits fully transferable to a New Jersey public four-year institution, will have completed half of the credits required for a basic four-year degree and will have completed all of the lower division general education requirements. In addition, articulation agreements with private institutions may provide similar transfer provisions. Students should discuss the transfer process with an advisor.

■ How long will it take to complete this degree?

Once students complete developmental coursework (if needed), the degree can be completed in two years of full-time study. They can shorten the amount of time by taking courses in the summer and winter sessions.

■ Questions?

Contact: Dr. Trace Gerow, department chair, at 732.906.2592.

BIOLOGY OPTION - SCIENCE TRANSFER DEGREE

Associate in Science (A.S.) Degree - BIO.AS

*Below are required courses and recommended course groupings and sequences for program completion.
Courses may have prerequisite and corequisite requirements. Check course descriptions for details.*

Courses	Credits	Requisites / Comments
Semester I		
BIO 123 General Biology I	4	One year of high school laboratory biology or BIO 010 and one year of high school laboratory chemistry or CHM 010. Also appropriate score on the College's placement test or MAT 013 or MAT 013A/MAT 013B.
CHM 121 General Chemistry I - Lecture	3	Two years of high school algebra and geometry or MAT 013, MAT 014 and one year of high school chemistry or CHM 010.
CHM 125 General Chemistry I - Lab	1	Two years of high school algebra and geometry or MAT 013, MAT 014 and one year of high school chemistry or CHM 010.
ENG 121 English Composition I	3	A passing score on the College's placement test or a grade of "C" or better in ENG 010.
MAT 129 Precalculus	4	Appropriate score on the College's placement test and/or satisfactory score on the diagnostic examination, "B" or better in MAT 014, or departmental approval. Students may substitute MAT 014A plus MAT 014B. MAT 131-MAT 132 recommended.
___ ___ Physical/Health Education Elective	1-3	
Semester II		
BIO 124 General Biology II	4	BIO 123
CHM 122 General Chemistry II - Lecture	3	CHM 121
CHM 126 General Chemistry II - Lab	1	CHM 121, CHM 125
ENG 122 English Composition II	3	A grade of "C" or better in ENG 121
OR		
ENG 125 English Composition II: Writing About Literature		
MAT 131 Analytic Geometry and Calculus I	4	MAT 129, or MAT 129A/MAT 129B, or appropriate score on the College's placement test and/or satisfactory score on the diagnostic examination, or departmental approval.
Semester III		
BIO 221 Microbiology	4	BIO 118 or BIO 124; CHM 118 or CHM 124 BIO 221
PHY 121 General Physics	4	MAT 129 or MAT 129A/MAT 129B
___ ___ General Education Social Sciences Elective (GE SS)	3	
___ ___ General Education Humanities Elective (GE HUM)	3	
CSC 106 Intermediate PC Applications with Programming	3	
Semester IV		
___ ___ Biology Elective	4	Students may choose BIO 228 (offered only in the fall semester) or BIO 224 (offered only in the spring semester) or BIO 229 (offered only in the fall semester) or BIO 240.
PHY 122 General Physics	4	PHY 121
___ ___ General Education Humanities Elective (GE HUM)	3	
OR		
___ ___ General Education Social Sciences Elective (GE SS)		
___ ___ Science/Mathematics Elective	3-4	Students may select from BIO 224 (offered only in the spring semester), BIO 228 (offered only in the fall semester), BIO 229 (offered only in the fall semester) BIO 240, CHM 221 with CHM 227, or MAT 132 or a course with permission of the department chairperson.
Total Credits: 62-65		

BIOLOGY PRE-PROFESSIONAL OPTION - SCIENCE TRANSFER DEGREE

Associate in Science (A.S.) Degree - BPPST.AS

(Recommended for students interested in Pre-Physician's Assistant, Pre-Occupational Therapy or Pre-Physical Therapy programs)

Courses	Credits	Requisites / Comments
Semester I		
BIO 123 General Biology I	4	One year of high school laboratory biology or BIO 010 and one year of high school laboratory chemistry or CHM 010. Also appropriate score on the College's placement test or MAT 013.
CHM 121 General Chemistry I - Lecture	3	Two years of high school algebra and geometry or MAT 013, MAT 014 and one year of high school chemistry or CHM 010.
CHM 125 General Chemistry I - Lab	1	Two years of high school algebra and geometry or MAT 013, MAT 014 and one year of high school chemistry or CHM 010.
ENG 121 English Composition I	3	A passing score on the College's placement test or a grade of "C" or better in ENG 010.
MAT 129 Precalculus	4	Appropriate score on the College's placement test and/or satisfactory score on the diagnostic examination, "B" or better in MAT 014, or departmental approval. Students may substitute MAT 014A plus MAT 014B. MAT 131-MAT 132 recommended.
___ ___ Physical/Health Education Elective	1-3	
Semester II		
BIO 124 General Biology II	4	BIO 123
CHM 122 General Chemistry II - Lecture	3	CHM 121
CHM 126 General Chemistry II - Lab	1	CHM 121, CHM 125
ENG 122 English Composition II	3	A grade of "C" or better in ENG 121
OR		
ENG 125 English Composition II: Writing About Literature		
MAT 131 Analytic Geometry and Calculus I	4	MAT 129, or MAT 129A/MAT 129B, or appropriate score on the College's placement test and/or satisfactory score on the diagnostic examination, or departmental approval.
Semester III		
BIO 111 Human Anatomy and Physiology I	4	One year of high school laboratory biology or BIO 010 and one year of high school laboratory chemistry or CHM 010 and appropriate score on the College's placement test or MAT 013 or MAT 013A/MAT 013B
PHY 121 General Physics	4	MAT 129 or MAT 129A/MAT 129B.
___ ___ General Education Social Sciences Elective (GE SS)	3	
___ ___ General Education Humanities Elective (GE HUM)	3	
CSC 106 Intermediate PC Applications with Programming	3	
Semester IV		
BIO 112 Human Anatomy and Physiology II	4	BIO 111
PHY 122 General Physics	4	PHY 121
___ ___ General Education Social Sciences Elective (GE SS)	3	
OR		
___ ___ General Education Humanities Elective (GE HUM)		
___ ___ Science/Math Elective	3-4	Students may select from BIO 221, BIO 228 (offered only in the fall semester), BIO 229 (offered only in the fall semester), BIO 240, CHM 221 with CHM 227, or MAT 132 or a course with permission of the department chairperson.

Total Credits: 62-65

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