

Department of Biology

Dr. Christina Mortellaro, *Chairperson*

The Biology Department offers two majors and a minor in Biology. Students may choose a B.S degree with a concentration in Biology or Forensic Science or a B.A. degree with a concentration in Biology or Secondary Education.

Requirements for Biology Major

Degree of Bachelor of Science

Biology Concentration

Twelve of the required credits for the major count towards the Core Curriculum Requirements.

BI-183	General Biology I ¹	3
BI-185	General Biology I Lab	1
BI-184	General Biology II ¹	3
BI-186	General Biology II Lab	1
BI-215	Principles of Anatomy and Physiology	4
BI-215L	Principles of Anatomy and Physiology Lab	0
BI-240	Cell and Molecular Biology	4
BI-240L	Cell & Molecular Bio Lab	0
BI-350	Genetics	4
BI-350L	Genetics Lab	0
BI-310	Ecology (WI)	4
BI-310L	Ecology Lab	0
BI-	Biology Electives (300-level or above)	11
BI-485	Current Issues in Biology (Capstone)	3
CH-131	General Chem and Qualitative Analysis 1	3
CH-131L	Gen Chem and Qualitative Analysis 1 Lab	1
CH-132	General Chem and Qualitative Analysis 2	3
CH-132L	Gen Chem and Qualitative Analysis 2 Lab	1
MA-132	Statistics for Life Sciences ²	3
MA-133	Calculus for the Life Sciences ²	4
PC-185	General Physics I	3
PC-187	General Physics Laboratory I	1
PC-186	General Physics II	3
PC-188	General Physics Laboratory II	1
Total Credits		61

¹ May count towards the Core Natural Science Requirement.

² May count towards the Core Mathematics Requirement.

Forensic Science Concentration

Twelve of the required credits for the major count towards the Core Curriculum Requirements.

BI-183	General Biology I ¹	3
BI-185	General Biology I Lab	1
BI-184	General Biology II ¹	3
BI-186	General Biology II Lab	1
BI-215	Principles of Anatomy and Physiology	4

BI-215L	Principles of Anatomy and Physiology Lab	0
BI-240	Cell and Molecular Biology	4
BI-240L	Cell & Molecular Bio Lab	0
BI-350	Genetics	4
BI-350L	Genetics Lab	0
BI-361	Criminalistics & Forensic Science	3
BI-450	Microbiology	4
BI-450L	Microbiology Lab	0
BI-485	Current Issues in Biology (Capstone)	3
CH-131	General Chem and Qualitative Analysis 1	3
CH-131L	Gen Chem and Qualitative Analysis 1 Lab	1
CH-132	General Chem and Qualitative Analysis 2	3
CH-132L	Gen Chem and Qualitative Analysis 2 Lab	1
CH-251	Organic Chemistry I	3
CH-251L	Organic Chemistry I Lab	1
CH-252	Organic Chemistry II	3
CH-252L	Organic Chemistry II Lab	1
CH-442	Biochemistry I	3
MA-132	Statistics for Life Sciences ²	3
MA-133	Calculus for the Life Sciences ²	4
PC-185	General Physics I	3
PC-187	General Physics Laboratory I	1
PC-186	General Physics II	3
PC-188	General Physics Laboratory II	1
CJ-170	Intro to Criminal Justice	3
CJ-316	Criminal Evidence	3
CJ-405	Crime Investigation	3
CJ-406	Homicide: Investigation & Prosecution	3
Select one of the following:		1
CJ-486	Internship I (Capstone Experience)	
CJ-487	Internship II (Capstone Experience)	

Total Credits **77**

¹ May count towards the Core Natural Science Requirement.

² May count towards the Core Mathematics Requirement.

Bachelor of Arts

Biology Concentration

Twelve of the required credits for the major count towards the Core Curriculum Requirements.

BI-183	General Biology I ¹	3
BI-185	General Biology I Lab	1
BI-184	General Biology II ¹	3
BI-186	General Biology II Lab	1
BI-240	Cell and Molecular Biology	4
BI-240L	Cell & Molecular Bio Lab	0
BI-350	Genetics	4
BI-350L	Genetics Lab	0
BI-485	Current Issues in Biology	3

MA-132	Statistics for Life Sciences ²	3
MA-133	Calculus for the Life Sciences ²	4
CH-131	General Chem and Qualitative Analysis 1	3
CH-131L	Gen Chem and Qualitative Analysis 1 Lab	1
BI-	Electives (A minimum of one 4 credit laboratory course, one in organismic biology, and one in evolution/global issues/environmental health field must be taken)	11-12
Select three cognate courses with at least one additional lab:		10
CH-132	General Chem and Qualitative Analysis 2	
CH-132L	Gen Chem and Qualitative Analysis 2 Lab	
CH-251	Organic Chemistry I	
CH-251L	Organic Chemistry I Lab	
CH-252	Organic Chemistry II	
CH-252L	Organic Chemistry II Lab	
PC-185	General Physics I	
PC-187	General Physics Laboratory I	
PC-186	General Physics II	
PC-188	General Physics Laboratory II	
Total Credits		51-52

¹ May count towards the Core Natural Science Requirement.

² May count towards the Core Mathematics Requirement.

Secondary Education Concentration

Twelve of the required credits for the major count towards the Core Curriculum Requirements.

BI-183	General Biology I ¹	3
BI-185	General Biology I Lab	1
BI-184	General Biology II ¹	3
BI-186	General Biology II Lab	1
BI-240	Cell and Molecular Biology	4
BI-240L	Cell & Molecular Bio Lab	0
BI-350	Genetics	4
BI-350L	Genetics Lab	0
BI-485	Current Issues in Biology (Capstone)	3
MA-132	Statistics for Life Sciences ²	3
MA-133	Calculus for the Life Sciences ²	4
CH-131	General Chem and Qualitative Analysis 1	3
CH-131L	Gen Chem and Qualitative Analysis 1 Lab	1
BI-	Electives (A minimum of two 4 credit laboratory courses, and one course in organismic biology.) ³	11
Select three courses with one additional lab:		10
CH-132	General Chem and Qualitative Analysis 2	
CH-132L	Gen Chem and Qualitative Analysis 2 Lab	
PC-185	General Physics I	
PC-187	General Physics Laboratory I	
PC-186	General Physics II	
PC-188	General Physics Laboratory II	
CH-251	Organic Chemistry I	

CH-251L	Organic Chemistry I Lab	
CH-252	Organic Chemistry II	
CH-252L	Organic Chemistry II Lab	
Total Credits		51

- ¹ May count towards the Core Natural Science Requirement.
² May count towards the Core Mathematics Requirement.
³ Must fulfill the Core Writing Intensive, Pluralism and Values Requirements.

Special Note on Core Curriculum Requirements for all Biology Majors—All Concentrations

While CH-251-CH-252, Organic Chemistry I and II and the associated labs CH-251L and CH-252L, are not required for Biology (Biology Concentration) majors, these courses are strongly recommended since they are required for many post-graduate programs (health careers and/or graduate school).

Requirements for a Minor in Biology

BI-183	General Biology I	3
BI-185	General Biology I Lab	1
BI-184	General Biology II	3
BI-186	General Biology II Lab	1
Select two of the following courses and associated labs:		8
BI-215 & 215L	Principles of Anatomy and Physiology and Principles of Anatomy and Physiology Lab	
BI-240 & 240L	Cell and Molecular Biology and Cell & Molecular Bio Lab	
BI-350 & 350L	Genetics and Genetics Lab	
BI-310 & 310L	Ecology and Ecology Lab	
BI-	Biology Electives	4
Total Credits		20

Articulations with Professional Schools

Saint Peter's University has entered into a series of formal agreements with several Professional Schools to enhance the opportunities of students majoring in the sciences. See the separate listing for Pre-Professional Programs for details.

Core Courses Offered for Non-science Majors

The 100-level courses are offered for non-science majors to satisfy the Core Natural Science Requirements and are not open to majors in Biology or the Natural Sciences. Most include lectures and demonstrations only; some, such as BI-130, may include a laboratory component as well.

BI-122	Nutrition in Health and Disease	3
BI-123	Concepts of Biology	3
BI-124	Human Structure and Function	3
BI-125	Heredity	3
BI-126	The Human Environment	3
BI-130		3
BI-140		3
BI-161	Basic Microbiology	4

BI-171	Anatomy and Physiology I	4
BI-172	Anatomy and Physiology II	4