B.S. in Biology
Sample Four-Year Plan
****Effective for students entering the major in Fall 2027****

Fall Semester	Spring Semester
First Year	
BIOL150L Foundations of Cell & Molecular Biology	BIOL160L Foundations of Ecology & Evolution
BIOL151L Foundations of Cell & Molecular Biology Lab	CHEM112L General Chemistry II
CHEM111L General Chemistry I	CHEM116L General Chemistry II Lab
CHEM115L General Chemistry I Lab	ENG120L Writing for College
FYS101L First Year Seminar	Pathway Course 1
PHIL101L Philosophical Perspectives	General Elective (3 cr.)
Credits: 15	**Credits: 16**
Second Year	
BIOL250L Foundations of Genetics	BIOL277L Writing & Communication in Biology
BIOL251L Foundations of Genetics Lab	STEM Elective (4 cr.)
MATH130L Introductory Statistics I	Core: Literature
Pathway Course 2	Core: Social Science
General Elective (4 cr.)	General Elective (3 cr.)
Credits: 14	**Credits: 16**
Third Year	
BIOL Elective (Cell & Molecular Area)†	BIOL Elective (Organismal Biology & Physiology Area)†
PHIL346L Bioethics	BIOL Elective (Ecology & Evolution Area)†
Pathway Course 3	Pathway Course 4
Core: History	General Elective (3 cr.)
General Elective (3 cr.)	General Elective (3 cr.)
Credits: 16	**Credits: 16**
Fourth Year	
BIOL Elective†	BIOL Elective†
BIOL494N Biology Internship	BIOL477L Biology Capping
Core: Fine Arts	Core: Technology Requirement
General Elective (3 cr.)	General Elective (4 cr.)
General Elective (3 cr.)	
Credits: 14	**Credits: 13**
Total Credits: 120; Major Credits: 54-56; Marist Core & Pathway: 37; Free Electives: 29	

Blue: Major Requirements
Green: Marist Core Curriculum Requirements
Purple: Pathway
Black: Free Electives

†All students take five upper-level Biology Electives, including at least one course from the required breadth areas:

- Cell & Molecular Biology
- Ecology & Evolution
- Organismal Biology & Physiology

Requirements for Concentrations:

Students who would like to add a concentration will be required to distribute their five upper-level Biology Electives as follows:

Concentration	Number of Courses in Cell & Molecular Biology	Number of Courses in Ecology & Evolution	Number of Courses in Organismal Biology & Physiology
Biomedical Sciences	**2**	**1**	**2**
Cell & Molecular Biology	**3**	**1**	**1**
Ecology & Evolution	**1**	**3**	**1**
Organismal Biology & Physiology	**1**	**1**	**3**

All other major requirements are the same across all concentrations.

Prerequisite Courses for Graduate & Professional Study:

Students will work closely with the Pre-Health Program Coordinator and their faculty advisor to incorporate prerequisite coursework beyond the major into their graduation plan. All students will have *at least* 29 credits of general elective credits in their degree which provides space for these prerequisite courses.

Examples of common prerequisite courses beyond those included in the Biology major:*

Medical, Dental & Veterinary	Physician Assistant	Physical Therapy	Optometry
Organic chemistry with lab (8 cr.)	Organic chemistry with lab (4 cr.)	Physics with lab (8 cr.)	Physics with lab (8 cr.)
Biochemistry (3 cr.)	Biochemistry with lab (4 cr.)	Anatomy (8 cr.)	Anatomy (8 cr.)
Physics with lab (8 cr.)	Anatomy (8 cr.)	Social science courses (3-6 cr.)**	Social science courses (3-6 cr.)**
Anatomy (8 cr.)	Social science courses (3-6 cr.)**		Organic chem with lab (4 cr.)
Social science courses (3-6 cr.)**			
Calculus (4 cr.)			

*One 4-credit course from these prerequisite lists will fulfill the "STEM Elective" major requirement.
**One 3-credit Social Science course (often Psychology 101) fulfills the Core: Social Science requirement. Students are often advised to take 1-2 additional Psychology courses.