

## Biology, AS

### School of Math, Science and Engineering

The Biology AS is designed to prepare students for a rigorous four-year Biology program. This program focuses on the study of principles of biology, problem solving, critical thinking, laboratory skills, and technical communication. It is designed primarily for transfer to a Pennsylvania Transfer and Articulation Oversight Committee (TAOC) four-year institution.

### Program Learning Outcomes

Upon successful completion of this program, students will be able to:

- Demonstrate an understanding of fundamental biology concepts and principles.
- Apply problem solving, critical thinking and analysis skills to biology problems.
- Work effectively with units and significant digits.
- Carry out biology experiments as well as accurately record and analyze results of such experiments in writing.

Sugg. Term	Seq #	Course ID	Course Title	Cr.	Prereq/Coreq(Co)	Options Available
1st Fall	1	PDV 171	Career Pathway Exploration	3		
	2	ENG 161	College Writing	3	ENG 085 or Placement	
	3	MTH 170	College Precalculus	4	MTH 100 or MTH 100A or Placement	MTH 157 & MTH 167
	4	BIO 155	General Biology I	4		
	5	CHM 151	General Chemistry I Lab	1	CHM 150 (Co)	
	6	CHM 150	General Chemistry I Lecture	3	CHM 107 or HS Chemistry & MTH 052 or MTH 052A, or Placement	
1st Spring	7	MTH 172	Analytical Geometry and Calculus I	4	MTH 109 or MTH 157 & MTH 167 or MTH 170 or Placement	
	8	BIO 156	General Biology II	4	BIO 155	
	9	CHM 160	General Chemistry II Lecture	3	CHM 150	
	10	CHM 161	General Chemistry II Lab	1	CHM 160 (Co)	
	11	Elective	Humanities Elective	3		Page 25 Column II
2nd Fall	12	CHM 260	Organic Chemistry I Lecture	3	CHM 160	
	13	CHM 261	Organic Chemistry I Lab	1	CHM 260 (Co)	
	14	Elective	BIO Elective	3-4		BIO 120, BIO 145, BIO 255, BIO 265, BIO 285
	15	SPC 155	Effective Speech	3		
	16	Elective	Social Science Elective	3		Page 25 Column III
2nd Spring	17	CHM 270	Organic Chemistry II Lecture	3	CHM 260	
	18	CHM 271	Organic Chemistry II Lab	1	CHM 270 (Co)	
	19	Elective	BIO Elective	3-4		BIO 120, BIO 145, BIO 255, BIO 265, BIO 285
	20	STM 296	STEM Seminar	1	9 credits of Natural Science and/or Math with at least one of these courses at the 200-level	
	21	Elective	Humanities Elective	3		Page 25 Column II
	22	Elective	Social Science Elective	3		Page 25 Column III

Total Program Credits

61-62

BIO