

								Required Credits	
<b>Year 01</b>	Fall	GE 1000/3000 Transition to Kean/Transfer Transitions (1 cr)	ENG 1030 College Composition (3 cr)	MATH 1054 Precalculus (3 cr)*	BIO 1300 General Biology I (4 cr)	CHEM 1083 Chemistry I (4 cr)		15	
	Winter								
	Spring	COMM 1402 Speech Communication (3 cr)	GE Approved Social Science (3 cr)	Free Elective (3 cr)	Bio 1400 General Biology II (4 cr)	CHEM 1084 Chemistry II (4 cr)		17	
	Summer								
<b>Year 02</b>	Fall	GE 2024 Research and Technology (3 cr)	PHYS 2091 General Physics I (4 cr)	CHEM 2581 Organic Chemistry I Lecture (3 cr)	CHEM 2581L Organic Chemistry I Lab (1 cr)	BIO Major Elective (1-4 cr)		12 - 15	
	Winter								
	Spring	PHYS 2092 General Physics II (4 cr)	HIST 1062 Worlds of History (3 cr)	CHEM 2582 Organic Chemistry II Lecture (3 cr)	CHEM 2582L Organic Chemistry II Lab (1 cr)	BIO 3709 Principles of Genetics (4 cr)		15	
	Summer								
<b>Year 03</b>	Fall	BIO Major Elective (1 - 4 cr)	MATH 1016 Statistics (3 cr)	ENG 2403 World Literature (3 cr)	BIO 3315 Principles of Microbiology Lecture (3 cr)	BIO 3315L Principles of Microbiology Lab (1 cr)	Free Elective (3 cr)	14 -17	
	Winter								
	Spring	MATH 2415 Calculus I (4 cr)	GE Approved Humanities (3 cr)	BCHM 4115 Biochemistry Lecture (3 cr)	BCHM 4115L Biochemistry Lab (1 cr)	BIO Major Elective (4 cr)		15	
	Summer								
<b>Year 04</b>	Fall	BIO 4316 Immunology Lecture (3 cr)	BIO 4316L Immunology Lab (1 cr)	BIO Major Elective (4 cr)	Free Elective (3 cr)	Free Elective (1-2 cr)		12-13	
	Winter								
	Spring *	One of: BIO 4236 and 4236L Cell Phys.; BIO 4325 Appl. Micro.; BIO 4700 Mol. Gen. (4 cr)	Free Elective (3 cr)	BIO 4970 Seminar in Integrative Biology (3 cr)	Free Elective (3 cr)	BIO 2910 Essentials of Bioinformatics (3 cr)		16	
<b>TOTAL</b>								<b>190</b>	

Please see the Curriculum Sheet for this program via Quick Links on the Kean University home page.

\*Students who place into MATH 0901 or MATH 1000 are encouraged to take these in the summer, prior to their freshman year, to avoid delaying their progress into biology major courses.

The Dorothy and George Hemmings College of Science, Mathematics and Technology/School of Natural Sciences  
 (70306) B.S. in Biology, Cell and Molecular Option  
 4 Year Plan