

(70306 BIO/CELMO) B.S. in Biology, Cell and Molecular Option: 4-year Study Plan

Please check the academic guide sheets at <https://www.kean.edu/offices/registrars-office/curriculum-sheets/dorothy-and-george-hennings-college-science-mathematics>

Name:	Faculty Advisor:
Kean Id#	Catalog Year:

Keanwise shows what catalog year you are listed as in your major; catalog year may affect particular courses in your degree needed for graduation.

THIS STUDY PLAN IS FOR CATALOG YEAR FALL 2023 (requires 2.0 GPA)

1st Year Fall (15)	1st Year Spring (17)
MATH 1054 Precalculus (3) *	MATH 1016 Statistics (3)
BIO 1300 General Biology I (4) [prerequisite is MATH 1000]	BIO 1400 General Biology II (4)
ENG 1030 College Composition (3)	COMM 1402 Speech Comm. (3)
GE 1000/3000 Transition to Kean (1)	CHEM 1084 General Chemistry II (4)
CHEM 1083 General Chemistry I (4)	GE Approved Social Science (3)

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

2nd Year Fall (14)	2nd Year Spring (15)
MATH 2415 Calculus I (4)	PHYS 2091 General Physics I (4)
BIO 2910 Essentials of Bioinformatics (3)	HIST 1062 Worlds of History (3)
CHEM 2581 Organic Chemistry I Lecture (3)	CHEM 2582 Organic Chemistry II Lecture (3)
CHEM 2581L Organic Chemistry I Lab (1)	CHEM 2582L Organic Chemistry II Lab (1)
GE 2024 Research and Technology (3)	BIO 3709 Principles of Genetics (4)

3rd Year Fall (14-17)	3rd Year Spring (15)
ENG 2403 World Literature (2)	PHYS 2092 General Physics II (4)
BIO 3315 Principles of Microbiology Lecture (3)	BIO Major Elective (4)
BIO 3315L Principles of Microbiology Lab (1)	BCHM 4115 Biochemistry Lecture (3)
BIO Major Elective (1-4)	BCHM 4115L Biochemistry Lab (1)
Free Elective (3)	GE Approved Humanities (3)
Free Elective (3)	

4th Year Fall (12-14)	4th Year Spring (14-17)
BIO 4316 Immunology Lecture (3)	BIO 4236 + 4236L Cell Physiology Lecture & Lab or BIO 4325 Applied Microbiology or BIO 4700 Molecular Genetics (4)
BIO 4316L Immunology Lab (1)	BIO 4970 Seminar in Integrative Biology (3)
BIO Major Elective (4)	BIO Major Elective (1-4)
Free Elective (2-3)	Free Elective (3)
Free Elective (1-2)	Free Elective (3)

Fall offered BIO Major Courses	Spring offered BIO Major Courses
BIO 3100 Medical Terminology	BIO 3404 Anatomy & Physiology II and/or BIO 3416 & 3416L Neuroscience
BIO 3829 Basic Tissue Culture	BIO 4913 Special Topics
BIO 3450 Biology of Aging	BIO 3835 Biostatistics
BIO 3403 Anatomy & Physiology I	Independent Research or BIO 3900 or STME RFIs
BIO 4913 Special Topics	Note: if taking more than 1 of BIO 4236/4236L, BIO 4325, BIO 4700, then the 2 nd course can count as major elective
Independent Research or BIO3900 or STME RFIs	

Notes: Major electives are distinct from free electives as free electives mean outside your BIO major; Kean's policy is that half the credits in free electives must be at the 3000/4000 level.

The B.S. Biology degree is an in person degree program. In person biology majors are required to take all science lab courses in person.

Rev. 10/2025

NSO Only; Transfer students will need Transfer Services at Kean to determine Kean equivalency

Note: The course sequence and layout provided is an estimate, based on available information and may change, due to program requirements, student performance, and may be subject to human error. All students should check their study plans and take personal responsibility for accuracy and correctness.