

**ALL SCIENCE LAB COURSES REQUIRED OF THIS DEGREE
MUST BE COMPLETED IN-PERSON**

**KEAN UNIVERSITY – DOROTHY AND GEORGE HENNINGS COLLEGE OF SCIENCE, MATH AND TECHNOLOGY
(70204) B.S. IN BIOLOGY: Medical Laboratory Science 120 S.H.**

For students graduating from Ocean County College with the A.S. in General Studies with a concentration in Science transferring to Kean University

Minimum GPA required for declaration into major and graduation: 2.85

Kean University Courses are in Blue (62 S.H.) Ocean County College Courses are in Green (58 S.H.)

EFFECTIVE DATE: Fall 2025

See the Current Undergraduate Academic Catalog for Requirements to Graduate with Honors

GENERAL EDUCATION: Foundation Requirements ¹		32 S.H. 13 S.H.	ACADEMIC MAJOR REQUIREMENTS ^{***} : MAJOR REQUIRED COURSES ^{***}		66 S.H. 32 S.H.
GE 3000 Transfer Transitions ²		1	BIO 1300 General Biology I	BIOL 161 Biology I	4
ENG 1030 College Composition ³	ENG 151 English I	3	BIO 1400 General Biology II	BIOL 162 Biology II	4
MATH 1054 Precalculus ^{4,6}	MATH 191 Precalculus I	3	BIO 3315 Principles of Microbiology ⁷		3
COMM 1402 Speech Communication	Any OCC GE course	3	BIO 3315L Principles of Microbiology Lab ⁷		1
GE 2024 Research & Technology	ENGL 152 English 2	3	BIO 3403 Anatomy & Physiology I		4
DISCIPLINARY & INTERDISCIPLINARY Distribution Requirements:		19 S.H.	BIO 3404 Anatomy & Physiology II		4
			BIO 3709 Genetics		4
Humanities (from different areas)		6 S.H.	BIO 4316 Immunology ⁷		3
*ENG 2403 World Literature	Humanities Gen Ed	3	BIO 4316L Immunology Lab ⁷ (must be taken at Kean Union)		1
Take one "GE Approved" Humanities course from one area below:			BCHM 4115 Biochemistry ⁷		3
Fine Arts/Art History	Humanities or Social Science Gen Ed	3	BCHM 4115L Biochemistry Lab ⁷ (WE)		1
Philosophy or Religion			Major Elective Courses (select from list below):		4 S.H.
Foreign Language (I & II for credit)			BIO 3260 Histology OR 3000/4000 Level ^{1,6,7,8}		4
Music or Theatre			Required Courses: Special Options		30 S.H.
Interdisciplinary			ID 4877 Med Tech Clinical Preceptor I		15
Social Sciences (from different areas)		6 S.H.	ID 4878 Med Tech Clinical Preceptor II		15
*HIST 1062 Worlds Of History	Social Science Gen Ed	3	**Major Capstone Course ^{***}		3 S.H.
Take one "GE Approved" Social Sciences course from one area below:			BIO 4970 Seminar in Integrative Biology		3
Psych 1000 (required for PT & OT)	Any OCC GE Course (suggested PSY 172 General Psychology)	3	Free Electives (50% at 3000-4000 level)		7 S.H.
Economics or ES 1010 (World Geog)			1000-4000 Elective	STSC 150 Student Success	2
Political Science			1000-4000 Elective.	GE TECH Requirement	3
Sociology or Anthropology			3000-4000 Elective	Any Unused OCC credits	2
Interdisciplinary					
Science and Mathematics		7 S.H.			
MATH 1016 Statistics	MATH 156 Statistics	3			
CHEM 1083 Chemistry I ⁶	CHEM 181 General Chemistry I	4			
ADDITIONAL REQUIRED COURSES:		12 S.H.			
CHEM 1084 Chemistry II ⁶	CHEM 182 General Chemistry II	4			
CHEM 2581 Organic Chem Lecture I ^{6,7}	GE ELEC -	4			
CHEM 2581L Organic Chem Lab I ^{6,7}	CHEM 283 Organic Chem I				
CHEM 2582 Organic Chem Lecture II ⁷	GE ELEC -	4			
CHEM 2582L Organic Chem Lab II ⁷	CHEM 284 Organic Chem II				
Special Notes: * GE Distribution course required of all students. ** All major courses require a grade of C or better. ***Minimum cumulative GPA of 2.85 required to apply to senior year clinical preceptorship at partner hospitals. Most graduate programs require candidates to have a minimum GPA of 3.0 minimum for eligibility.					

1 See Prerequisites & Equivalencies (below).

2 University Requirement for Graduation for all undergraduate students that must be satisfied in one of two ways: Complete GE 1000 (all freshmen and transfers entering with 0-29 credits) OR complete GE 3000 (transfers entering with 30 credits or more).

3 ENG 1030 requires a grade of C or higher

4 With qualifying placement test scores, this course may be substituted with an elective

5 Both I & II must be completed giving credit as a foreign language plus one free elective

6 Requires a grade of C or higher

7 Lecture course must be taken concurrently or prior to the corresponding lab.

8 Maximum of 2 credits for BIO 3900 are allowed.

9 Maximum of 2 credits for BIO 1996 are allowed.

10 Optional course. Grade is Pass or Fail. Biology major elective credits may be given instead of free elective credits (on a case-by-case basis).

GENERAL EDUCATION INFO & REQUIREMENTS

Testing and Placement Incoming freshmen and transfer students may be placed in specific GE Foundations, Developmental or ESL courses as a result of testing prior to registration. Students may be exempt from testing due to SAT scores or prior college work.

Prerequisites and Equivalencies for GE Foundations Courses

GE 1000: Required of all freshman and transfers entering with 0-29 credits. Prereq: None; Equivalent ID 1001

GE 3000: Required of all transfers entering with 30 credits or more. Prereq: 30 credits and ENG 1030.

ENG 1030 Prereq: Placement testing or exemption from placement testing. ENG 1025 if required by placement testing. Equiv: ENG 1031/32; ENB 1033/34; ENG 1430 (ESL version); ENG 1620 (Honors version) ENG 1020; 1400

MATH 1000 or MATH 1044: Prereq: MATH 0901 if required by placement testing. *MATH 1044 is available as a Foundation option for CBPM students only. Equiv. of MATH 1000: MATH 1001/1002, MATH 1003/1004, MATH 1051 MATH 1010 or 1016 or 1030: Prereq: MATH 0901 if required by placement testing. Co-requisite: MATH 0902 (only required, with advisement, based on placement test score and intended major) MATH 1054: Prereq: MATH 0901 if required by placement testing and MATH 1000 COMM 1402 Prereq: CS 0412 if required by placement testing. May be taken concurrently with ENG 1030; Equiv:

COMM 1400

GE 2021-2026 Research & Technology is offered as college-based course GE 2021 College of BPM; GE 2022 College of EDU; GE 2023 All College of CLA; GE 2024 College of SMT & NJSTEM & NWGC (Speech, Language, and Hearing Science majors); GE 2025 SFPA & Michael Graves College; GE 2026 Undecided Majors and other special populations. Prereqs: CS 0412 if required by placement testing; ENG 1030 or equivalent course. Equiv: GE 2020

General Education Distribution Courses

All courses under GE Disciplinary/Interdisciplinary Distribution requirements must be selected from the Approved GE Distribution Course List. (GEHU Humanities; GESS Social Sciences; GESM Science and Mathematics.

Required GE Distribution Courses

ENG 2403 is a required Humanities Distribution course with an emphasis on diversity. Prereq: CS 0412 if required by placement testing; ENG 1030 or equivalent. Equiv.: ENG 2203 HIST 1062 is a required Social Sciences Distribution course. Prereq: None.

Foreign Language Credit

The three credits for a foreign language that may satisfy the GE Disciplinary/Interdisciplinary Distribution Requirement are awarded only upon successful completion of two semesters of study at the introductory or intermediate level. Credit for the first semester may be used as elective credit.

University Requirements

GE 1000/3000 Requirement. All undergraduate students must satisfy this University requirement for graduation by successfully completing one of the following courses at Kean University: GE 1000 Transition to Kean (all freshmen and transfers entering with 0 – 29 credits) or GE 3000 Transfer Transitions (transfers entering with 30 credits or more). Writing Emphasis Requirement. All students are required to complete one "Writing-Emphasis; course. The "W-E" course must be within the major portion of your program. Consult your major program advisor for specific information.

Note: Equivalent courses may be prior General Education or prerequisite course work taken by students that is now discontinued.

Prerequisites and co-requisites may change; please consult KeanWise course descriptions for the most current information. Some courses may require approved petitions.

Your major's department is located in the George Hennings Hall, Room C-124 on the Main Campus. The telephone number is 908-737-3650.

Course Prerequisites (Pre/Corequisites may change, consult Keanwise; Some course may require approved petitions) 2

BIO 1300: Prerequisite MATH 1000, Corequisite MATH 1054 (precalc)

BIO 1400: Prerequisite BIO 1300 or STME 1700 and STME 1799

BIO 2500: BIO 1300 or STME 1700 and STME 1799

BIO 3260: BIO 1400 and 12 credits in Biology or permission of instructor

BIO 3315: BIO 1400 or STME 1800

BIO 3400: BIO 1400 or STME 1800 and STME 1899, CHEM 1084 or STME 1100 and STME 1199

BIO 3403: BIO 1400 or STME 1800 and STME 1899, CHEM 1084 or STME 1100 and STME 1199, GE 2024, or instructor permission

BIO 3404: BIO 3403

BIO 3614: BIO 1400 or STME 1800 and STME 1899, MATH 1016 or instructor permission

BIO 3709: BIO 1400 or STME 1800 and STME 1899

BIO 4316: 16 credits of Biology which must include BIO1400 or Instructor permissions

BIO 4115: CHEM 2582 or STME 2682

BIO 4970: 20 credits of biology plus senior biology major status;

CHEM 1083: Prerequisite MATH 1000 (College Algebra); Corequisite MATH 1054 (Precalc)

CHEM 1084: MATH 1054, CHEM 1083 or STME 1000 and STME 1099 with grade of C or better

CHEM 2581 and 2581L: CHEM 1084 or STME 1100 and STME 1199 with grade of C or better

CHEM 2582 and 2582L: CHEM 2581 or STME 2681 and CHEM 2581L or STME 2682 with grade of C or better

MATH 2415: MATH 1054 (Precalc)

PHYS 2091: MATH 1054 (Precalc) or equivalent.

PHYS 2092: PHYS 2091