

KEAN UNIVERSITY - N.J. CENTER FOR SCIENCE, TECHNOLOGY & MATHEMATICS  
**(30110) B.S. IN SCIENCE & TECHNOLOGY (Biomedicine Option)** **120 S.H.**

Minimum GPA Required for Declaration: N/A  
 Minimum GPA Required for Major: 2.75  
 Overall Minimum GPA Required for Graduation: 3.0

**EFFECTIVE DATE: FALL 2020**

GENERAL EDUCATION: 34 Semester Hours (S.H.)			
Foundation Requirements <sup>1,2</sup> : 14 S.H.			
GE 1000	Transition to Kean <sup>3</sup> or GE 3000 Transfer Transition <sup>3</sup>	1	
ENG 1030	College Composition <sup>1</sup>	3	
STME 2000	Math. & Comp. Methods of Science I <sup>4</sup> &	3	
STME 2099	Math. & Comp. Methods of Science I <sup>4</sup> Lab	1	
COMM 1402	Speech Communication As Critical Citizen <sup>1</sup>	3	
GE 2024	Research & Technology	3	
Disciplinary & Interdisciplinary Distribution Requirements <sup>2</sup> : 20 S.H.			
Humanities: 6 S.H.			
*ENG 2403	World Literature	3	
	Foreign Language (part II) <sup>5</sup>	3	
Social Sciences: 6 S.H.			
*HIST 1062	Worlds of History	3	
*SOC 1000	Introduction to Sociology	3	
Science and Mathematics: 8 S.H.			
STME 2100	Math. & Comp. Methods of Science II &	3	
STME 2199	Math. & Comp. Methods of Science II Lab	1	
STME 1000	Chemical Systems I &	3	
STME 1099	Chemical Systems I Lab	1	
ADDITIONAL REQUIRED COURSES <sup>1</sup> : 19 S.H.			
	Foreign Language (part I) <sup>5</sup>	3	
PSY 1000	General Psychology	3	
STME 1700	Living Systems I &	3	
STME 1799	Living Systems I Lab	1	
STME 2700	Physical Systems I &	3	
STME 2799	Physical Systems I Lab	1	
STME 2300	Probabilistic Methods in Science &	3	
STME 2399	Probabilistic Methods in Science Lab	1	
STME 1903	Research Methods-RFI	1	

ACADEMIC MAJOR <sup>5</sup> : 67 S.H.			
Program Core Requirements <sup>6</sup> : 22 S.H.			
STME 1100	Chemical System II &	3	
STME 1199	Chemical Systems II Lab	1	
STME 1800	Living Systems II &	3	
STME 1899	Living Systems II Lab	1	
STME 2681	Organic Chemistry Honors Lecture I	3	
STME 2683	Organic Chemistry Honors Lab I	2	
STME 2682	Organic Chemistry Honors Lecture II	3	
STME 2684	Organic Chemistry Honors Lab II	2	
STME 2800	Physical Systems II &	3	
STME 2899	Physical Systems II Lab	1	
Program Option Requirements <sup>6</sup> : 38-42 S.H.			
STME 2903	Research Experience-RFI <sup>8</sup> &	2	
STME 3903	Advanced Research Experience-RFI <sup>8</sup>	3	
	OR		
STME 3171-73	STEM Internship <sup>7,9</sup>	3	
	OR		
STME 3610	Current Issues <sup>7</sup>	1	
STME 3100	Biochemistry Honors I &	3	
STME 3199	Biochemistry Honors I Lab	1	
BIO 3315	Microbiology	3	
BIO 3315L	Microbiology Lab	1	
BIO 3403	Anatomy & Physiology I	4	
BIO 3404	Anatomy & Physiology II	4	
BIO 3405	Basic Gross Anatomy	4	
BIO 3406	Neuroscience	4	
BIO 3709	Genetics	4	
BIO 4310	Virology	4	
BIO 4316	Immunology	3	
BIO 4316L	Immunology Lab	1	
STME 4611	NJCSTM Serv. Learning ( <i>taken w/STME 4610</i> )	1	
**Major Capstone Course <sup>6</sup> : 3 S.H.			
STME 4610	Science & Technology Seminar (WE)	3	
MAJOR ELECTIVES <sup>5</sup> : 0-4 S.H.			
<i>(Select major elective courses with advisement in STME, BIO or CHEM at the 3000 level or higher)</i>			
FREE ELECTIVES: 1 S.H.			
<i>(Select with advisement courses in ecology, ethics &amp; issues courses, history of science/medicine, medical anthropology, human rights/genocide, sustainability; at least 50% must be 3000/4000 level)</i>			

Special Notes:	
All pre-requisites for major courses must be passed with a grade of C or better.	
* GE Distribution course required of all students	** Course required by Major
<sup>1</sup> Foundation Requirements & Additional Required Courses require a grade of C or better, except ENG 1030 and COMM 1402 require B- or better.	
<sup>2</sup> See prerequisites & equivalencies (on page 2).	
<sup>3</sup> University Requirement for Graduation for all undergraduate students that must be satisfied in one of two ways: Complete GE 1000 (all freshmen & transfers entering with 0-29 credits) OR complete GE 3000 (transfers entering with 30 credits or more).	
<sup>4</sup> Prerequisite of qualifying test score or the equivalent of MATH 1054.	
<sup>5</sup> Must complete two semesters (I & II) of a foreign language for credit; part I counts toward additional required courses and part II fulfills the foreign language GE requirement.	
<sup>6</sup> A minimum major GPA of 2.75 and minimum grade of C is required in all major courses, except major capstone requires a grade of B- or better.	
<sup>7</sup> Non-Research First Initiative (RFI) students only.	
<sup>8</sup> Required for RFI students – must complete with RFI sponsor faculty.	
<sup>9</sup> At a minimum, 3 total credits is required for students choosing to do a STEM Internship. Students may take any combination of STME 3171, 3172, 3173 (1, 2 or 3 credits) per semester that they choose to do an internship.	

# GENERAL EDUCATION AND UNIVERSITY REQUIREMENTS

## GENERAL EDUCATION INFORMATION AND 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/ACT scores or prior college work.

### Prerequisites and Equivalencies for GE Foundations Courses

#### **GE 1000**

Required of all freshmen & transfers entering with 0-29 credits  
Prerequisite: None  
Equivalent: ID 1001

#### **GE 3000**

Required of transfers entering with 30 credits or more  
Prerequisite: 30 credits **and** ENG 1030

#### **ENG 1030**

Prerequisite: Placement testing or exemption from placement testing  
ENG 1025 if required by placement testing  
Equivalent: ENG 1031/1032, ENG 1033/1034, ENG 1430 (ESL version), ENG 1620 (Honors version), ENG 1020, ENG 1400

#### **MATH 1000 or MATH 1044\***

Prerequisite: 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**

Prerequisite: 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**

Prerequisite: MATH 0901 if required by placement testing **and** MATH 1000

#### **COMM 1402**

Prerequisite: CS 0412 if required by placement testing  
ENG 1025 if required by placement testing  
May be taken concurrently with ENG 1030  
Equivalent: COMM 1400

#### **GE 2021- 2026**

*Research and 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 NAHS & NJCSTM & NWGC (Speech Language and Hearing Science majors)  
GE 2025 SFPA & Michael Graves College  
GE 2026 Undecided Majors and other special populations  
Prerequisites: CS 0412 **if** required by placement testing;  
ENG 1030 or equivalent course  
Equivalent: GE 2020

### GE Distribution Courses

#### Approved GE Distribution Courses

All courses taken under the General Education Disciplinary/Interdisciplinary Distribution requirements must be selected from the Approved General Education Distribution Course List.

These courses are designated as GEHU, GESS, and GESM.

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.  
Prerequisite: CS 0412 if required by placement testing; ENG 1030 or equivalent  
Equivalent: ENG\*2203

**HIST 1062** is a required Social Sciences Distribution course.  
Prerequisite: 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 the second 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*