

**KEAN UNIVERSITY**

College of Natural, Applied and Health Sciences

**(70401) B.S. in Clinical Lab Science: Joint Program with Rutgers Medical Laboratory Science: 124 Semester Hours  
(S.H.)**

**Minimum GPA Required for Declaration: 2.85\*\***

**Minimum GPA Required for Major: 2.85\*\***

**Overall Minimum GPA Required for Graduation: 2.85\*\***

Effective Date: Fall 2019

<b>GENERAL EDUCATION: 32 S.H.</b>		<b>ACADEMIC MAJOR REQUIREMENTS: 80 S.H.</b>	
<b>Foundations Requirements<sup>1</sup> 13 S.H.</b>		<b>Major Required Courses: 32 S.H. Kean</b>	
GE 1000 Transition to Kean <sup>2</sup> OR	1	BIO 1300 General Biology I <sup>7</sup>	4
GE 3000 Transfer Transitions <sup>2</sup>		BIO 1400 General Biology II <sup>8</sup>	4
ENG 1030 College Composition <sup>3</sup>	3	BIO 3709 Genetics	4
MATH 1054 Precalculus <sup>4,5</sup>	3	BIO 3315 Microbiology Lecture <sup>9</sup>	3
COMM 1402 Speech Communication	3	BIO 3315L Microbiology Lab	1
GE 2024 Research & Technology	3	BIO 3403 Anatomy and Physiology I	4
<b>Disciplinary &amp; Interdisciplinary Distribution Requirements:<sup>1</sup> 19 S.H.</b>		BIO 3404 Anatomy and Physiology II	4
		BIO 4316 Immunology Lecture <sup>9</sup>	3
<b>Humanities 6 S.H.</b>		BIO 4316L Immunology Lab	1
*ENG 2403 World Literature	3	BCHM 4115 Biochemistry Lecture <sup>9</sup> (W-E)	3
<b>Take one "GE-Approved Course from area below" 3 SH</b>		BCHM 4115L Biochemistry Lab	1
Fine Arts or Art History			
Foreign language (must take I and II for credit)			
Music or Theatre		<b>Major Capstone<sup>3</sup></b>	<b>3 S.H.</b>
Philosophy or Religion		BIO 4970 Seminar in Integrative Biology	3
Interdisciplinary			
<b>Social Sciences 6 S.H.</b>		<b>Rutgers Medical Lab Science courses: 45 S.H. at Rutgers<sup>10</sup></b>	
*HIST 1062 Worlds of History	3	MLSC 2119 Basic Laboratory Operations	2
<b>Take one "GE-Approved" course from area below 3 SH</b>		MLSC 2129 Hematology I	3
		MLSC 2159 Clinical Immunology	2
Economics or ES 1010 World Geography		MLSC 2169 Body Fluids	1
Political Science		MLSC 2239 Immunohematology I	3
Psychology		MLSC 2249 Clinical Chemistry I	4
Sociology or Anthropology		MLSC 4279 Clinical Microbiology	6
Interdisciplinary		MLSC 4329 Hematology II	3
<b>Science &amp; Mathematics 7 S.H.</b>		MLSC 4339 Immunohematology II	2
MATH 1016 Statistics	3	MLSC 4349 Clinical Chemistry II	3
CHEM 1083 Chemistry I <sup>6</sup>	4	MLSC 4390 Topics in Medical Laboratory Science	1
		MLSC 4429 Clinical Practice Hematology & Urinalysis	2
<b>ADDITIONAL REQUIRED COURSES: 12 S.H</b>		MLSC 4439 Clinical Practice Immunohematology & Immunology	2
CHEM 1084 Chemistry II <sup>6</sup>	4	MLSC 4449 Clinical Practice in Chemistry	2
CHEM 2581 Organic Chemistry Lecture I <sup>6</sup>	3		
CHEM 2581L Organic Chemistry Lab I <sup>6</sup>	1	MLSC4479 Clinical Practice in Microbiology	2
CHEM 2582 Organic Chemistry Lecture II	3	MLSC 4489 Independent Study	3
CHEM 2582L Organic Chemistry Lab II	1	CLSC4310 Lab Statistics, Management & Education	2
		CLSC4319 Introduction to Molecular Diagnostics	2
<b>Special Notes:</b>			
<sup>1</sup> See prerequisites and equivalencies on page 2..			

<p><sup>2</sup>University requirement 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).</p>		
<p><sup>3</sup>ENG 1030 Composition requires a grade of C or better</p>		
<p><sup>4</sup> With qualifying placement test scores, this course may be substituted with a Free Elective</p>		
<p><sup>5</sup> MATH 1000 prerequisite for MATH 1054</p>		
<p><sup>6</sup>C or higher needed to progress to the next course.</p>		
<p><sup>7-10</sup>See back of page for explanation</p>		
<p>*GE Distribution course required of all students</p>		
<p><b>**Minimum cumulative GPA of 2.85 required to apply to Rutgers for Major courses, 3.0 to be competitive.</b></p> <p><b>Students not accepted into the Rutgers program will change majors with advisement.</b></p>		
<p>Revised 8/13/2019</p>		

## GENERAL EDUCATION AND UNIVERSITY REQUIREMENTS

### Additional Footnotes

- <sup>7</sup>If enrolled before 9/14, substitute BIO 2200.
- <sup>8</sup>If enrolled before 9/14, substitute BIO 2400.
- <sup>9</sup>Lecture course must be taken concurrently or prior to corresponding lab
- <sup>10</sup>Fulfills clinical experience requirement.

### 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 scores or prior college work.

#### Prerequisites and Equivalencies for GE Foundations Courses

##### **GE 1000**

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

##### **GE 3000**

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

##### **ENG 1030**

Prereq: Placement testing or exemption from placement testing  
Equiv: ENG 1031/1032, ENG 1033/1034, ENG 1430, ENG 1620, ENG 1020, ENG 1400

##### **MATH 1000 or 1010 or 1016 or 1030**

Prereq: MATH 0901 if required by placement testing

Equiv of MATH 1000: MATH 1001/1002, MATH 1003/1004, MATH 1051

##### **MATH 1044 or 1054**

Prereq: MATH 0901 if required by placement testing and MATH 1000

##### **COMM 1402**

Prereq: CS 0412 if required by placement testing  
ENG 1031/1032 or ENG 1033/1034 if required by placement testing  
May be taken concurrently with ENG 1030

Equiv: COMM 1400

GE 2021-2026 *Research and Technology* is offered as a college-based course

GE 2021 College of BPM

GE 2022 College of EDU

GE 2023 College of CLA

GE 2024 College of NAHS & NJCSTM & NWGC

GE 2025 SVPA & Michael Graves College

GE 2026 Undecided Majors and other special populations

Prereqs: CS 0412 if required by placement testing, ENG 1030 or equivalent, COMM 1402

Equiv: 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 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 Science Distribution course.

Prereq: None

**Foreign Language Credit**

The three credits for a foreign language that may satisfy the GE Disciplinary/Interdisciplinary 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.

**Pre-requisites 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 Science Building, Room C-124 on Main Campus (telephone 908-737-3650**