

**KEAN UNIVERSITY – COLLEGE OF NATURAL, APPLIED AND HEALTH SCIENCES**

**(72197) B.A. IN CHEMISTRY (TEACHER CERTIFICATION OPTION): 120 S.H.**

**Minimum GPA Required for Declaration: 3.00**

**Minimum GPA Required for Major: 3.00**

**Overall Minimum GPA Required for Graduation: 3.00**

EFFECTIVE DATE: Fall 2019

<b>GENERAL EDUCATION</b> 42 Semester Hours (S.H.)		<b>ACADEMIC MAJOR</b> 30 S.H.	
Foundation Requirements: <sup>1</sup> 13 S.H.		Major Required Courses: 27 S.H.	
GE 1000 Transition to Kean <sup>2</sup> –or– GE 3000 Transfer Transitions <sup>2</sup>	1	CHEM 1083 Chemistry I	4
ENG 1030 Composition <sup>3</sup>	3	CHEM 1084 Chemistry II	4
MATH 1054 Precalculus	3	CHEM 2581 Organic Chemistry I	4
COMM 1402 Speech Communication	3	CHEM 2582 Organic Chemistry II	4
GE 2024 Research & Technology	3	CHEM 2283 Quantitative Analysis	4
		CHEM 3284 Instrumental Method of Analysis <sup>WE</sup>	4
<b>Disciplinary &amp; Interdisciplinary Distribution Requirements:</b> <sup>1</sup> 29 S.H.		BCHM 4115 Biochemistry	3
<b>Humanities</b> 9 S.H. (from different areas)		<b>Major Capstone Course</b> 3 S.H.	3
*ENG 2403 World Literature	3	CHEM 4908 Seminar in Chemistry	3
<b>Take two "GE Approved" courses from two areas below:</b>			
Fine Arts/Art History	3	<b>PROFESSIONAL EDUCATION:</b> 31 SH	
Philosophy or Religion	3	<i>Sophomore Level</i>	
Foreign Languages (Must take I and II for credit)	3	EMSE 2801 Introduction to Field Experience, K-12	3
Music or Theatre	3	<i>Junior Level</i> **	
Interdisciplinary	3	EDUC 3000 Curriculum, Evaluation and Learner	3
		EDUC 3401 Language Arts / Reading, K-12	3
<b>Social Sciences</b> 9 S.H. (from different areas)		EMSE 3122 Technology in Education	3
*HIST 1062 Worlds of History	3	EMSE 3903 Teaching English Language Learners	1
<b>Take two "GE Approved" courses from two areas below:</b>		<i>Senior Level</i>	
Psychology	3	EMSE 4711 Clinical II Practice in Subject Area P-12	3
Economics or ES 1010 World Geography	3	EMSE 3230 Science Education K-12**	9
Political Science	3	EMSE 4811 Clinical III Professional Internship, K-12	3
Sociology or Anthropology	3	EDUC 4000 Teacher and Classroom: Professional EDU Capstone	3
Interdisciplinary	3		
		<b>FREE ELECTIVE (optional)</b>	
<b>Science and Mathematics</b> 11 S.H.		CHEM 1996 (Intro to Chemistry Research)	1
MATH 2415 Calculus I	4		
PHYS 2095 Physics I	4		
ES1000 Observing the Earth	3		
		<b>Special Notes:</b>	
<b>ADDITIONAL REQUIRED COURSES</b> 17 S.H.		<sup>1</sup> See pre-requisites and equivalencies (on page 2)	
MATH 2416 Calculus II	4		
PHYS 2196 Physics II or PHYS 2197 Physics III	4	<sup>2</sup> 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)	
PSY 2110 Psychology of Adolescence	3	<sup>3</sup> ENG 1030 requires grade of C or higher	
BIO 1500 Essentials of Biology for Education	3	*GE Distribution course required of all students	
ID 2052 Human Exceptionality	3	**Course required by Major	

# 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 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 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 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 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).

### CHEM 1996 Option

Students are encouraged to take CHEM 1996.

### 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.