

**KEAN UNIVERSITY**  
**THE DOROTHY AND GEORGE HENNINGS COLLEGE OF SCIENCE, MATHEMATICS AND TECHNOLOGY**  
**(78200) B.A. IN MATHEMATICAL SCIENCES 120 S.H**  
**Minimum GPA Required for Declaration: 2.0**  
**Minimum GPA Required for Major: 2.0**  
**Overall Minimum GPA Required for Graduation: 2.0**  
**EFFECTIVE DATE: FALL 2019**

<b>GENERAL EDUCATION 41- 42 Semester Hours (S.H.)</b>		<b>ACADEMIC MAJOR 43 S.H. (Total)</b>	
<b>Foundation Requirements:1</b>	<b>13 S.H.</b>	<b>**Foundation Core Courses:</b>	<b>18 S.H.</b>
GE 1000 Transition to Kean2 –or– GE 3000 Transfer Transitions2	1	MATH 2415 Calculus I	4
**ENG 1030 Composition	3	MATH 2416 Calculus II	4
MATH 1054 Precalculus <sup>3,4</sup>	3	MATH 2995 Matrix and Linear Algebra	3
COMM 1402 Speech Communication	3	MATH 3415 Calculus III	4
GE 2024 Research & Technology	3	MATH 3544 Probability and Math Statistics	3
<b>Disciplinary &amp; Interdisciplinary Distribution Requirements:1</b>		<b>**Concentration Courses: 13 S.H.</b>	
<b>Humanities 9 S.H. (from different areas)</b>		MATH 2526 Applied Statistics I	3
*ENG 2403 World Literature	3	MATH 2800 Mathematical Software	1
<b>Take two "GE Approved" courses from two areas below:</b>		MATH 3110 Intro to Proofs	3
Fine Arts/Art History	3	MATH 3455 Differential Equations	3
Philosophy or Religion	3	MATH 3247 Abstract Algebra I or MATH 4451 Real Analysis I	3
Foreign Language (Must take I and II for credit)	3		
Music or Theatre	3	<b>**Major Elective Courses (With advisement, 3000-4000) 9 S.H.</b>	
Interdisciplinary	3	MATH	3
		MATH	3
<b>Social Sciences 9 S.H. (from different areas)</b>		MATH	3
*HIST 1062 Worlds of History	3		
<b>Take two "GE Approved" courses from two different areas:</b>		<b>** GE and Major Capstone 3.S.H</b>	
		MATH 4890 Senior Seminar in Mathematics (WE)	3
Psychology	3		
Economics or ES 1010 World Geography	3		
Political Science	3		
Sociology or Anthropology	3		
Interdisciplinary	3	<b>FREE ELECTIVES: 31-32 S.H</b>	
		Additional courses in Computer Science, Physics, or other Sciences, Technology, Economics, or Management Science recommended. At least 50% of free electives must be taken at the 3000-4000 level. No Mathematics courses allowed other than MATH 1000 and Optional Internship Courses	
<b>Science and Mathematics 10 or 11 S.H.</b>	<b>10</b>		
CPS 1231 Fund of Comp Science***	4	<b>Optional First-Year Research Course:</b>	
PHYS 2091 or PHYS 2095 (recommended)	4	MATH 1996 Research Methods	1
Additional Science Course: Biology, Chemistry, Environmental Science, Earth Science, Forensics Science, Interdisciplinary, Physics, or Sustainability Science	3-4		
		<b>Optional Internships Courses<sup>5</sup>:</b>	
		MATH 3171, 3172, 3173	1 - 6
		MATH 3291, 3292, 3293	
<b>ADDITIONAL REQUIRED COURSES: 4 S.H</b>	<b>4</b>		
****CPS 2231 Computer Org and Programming	4	<b>Special Notes:</b>	

	<sup>1</sup> See prerequisites and equivalencies. <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) <sup>3</sup> Students who do not qualify on the placement test to take MATH 1054 must take MATH 1000 first. <sup>4</sup> Students whose qualifying score on the placement test makes them eligible to take Math 2415 may take that course instead. In that case the student must take another 3 credits in free electives to total 120 S.H. *G.E. required course **Eng 1030 and <b>all major courses require a grade of C or better.</b> *** <b>MATH 1000 and ENG 1030 prereqs for CPS 1231</b> ****CPS 1231 and MATH 1054 prereq for CPS 2231 <sup>5</sup> May take up to 6 credits WE: Writing Intensive	
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Rev. 7.18.19

## 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).

**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.