KEAN UNIVERSITY
THE DOROTHY AND GEORGE HENNINGS COLLEGE OF SCIENCE, MATHEMATICS AND TECHNOLOGY
(78206) B.A. IN MATHEMATICAL SCIENCES (Data Analytics Option) 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 2022

GENERAL EDUCATION 41-42 Semester Hours (S.H.)		**ACADEMIC MAJOR** 45 S.H. (Total)**	
Foundation Requirements:[1] 13 S.H.		****Foundation Core Courses: 18 S.H.**	
GE 1000 Transition to Kean[2] **–or–** GE 3000 Transfer Transitions[2]	1	MATH 2415 Calculus I	4
**ENG 1030 Composition	3	MATH 2416 Calculus II	4
MATH 1054 Precalculus[3,4]	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
Disciplinary & Interdisciplinary Distribution Requirements:[1]		****Concentration Courses: 15 S.H.**	
Humanities **9 S.H. (from different areas)**		MATH 2526 Applied Statistics I	3
*ENG 2403 World Literature	3	MATH 3700 Bid Data Computing	3
Take two "GE Approved" courses from two different areas:		MATH 3710 Foundations of Data Analysis	3
Fine Arts/Art History	3	MATH 4710 Data Visualization	3
Philosophy or Religion	3	MATH 4720 Statistical Data Mining	3
Foreign Language (Must take I and II for credit)	3		
Music or Theatre	3	****Major Elective Courses (With advisement, 3000-4000) 9 S.H.**	
Interdisciplinary	3	**Suggested Courses:**	
		MATH 3790 Applied Machine Learning	3
Social Sciences **9 S.H. (from different areas)**		MATH 3780 Big Data Techniques	3
*HIST 1062 Worlds of History	3	MATH 3560 Regression Analysis	3
Take two "GE Approved" courses from two areas below:			
Psychology	3	**** GE and Major Capstone 3 S.H.**	
Economics or ES 1010	3	MATH 4890 Senior Seminar in Mathematics WE	3
Political Science	3		
Sociology or Anthropology	3		
Interdisciplinary	3	**FREE ELECTIVES[5] 29 - 30 S.H.**	
		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.	
Science and Mathematics **10 or 11S.H.**		**Optional First-Year Research Course:**	
CPS 1231 Fund of Comp Science***	4	MATH 1996 Research Methods	1
PHYS 2091 or PHYS 2095 or CHEM 1083	4		
Additional GE Science Course: Biology, Chemistry, Environmental Science, Earth Science, Forensics Science, Interdisciplinary, Physics, or Sustainability Science	3-4	**Optional Internship Courses [6]:** MATH 3171, 3172, 3173 MATH 3291, 3292, 3293	1-6

ADDITIONAL REQUIRED COURSES 4 S.H.		Special Notes:	
****CP 2231 Computer Org and Programming	4	[1] See prerequisites and equivalencies (On Page 2). [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] Students who do not qualify on the placement test to take MATH 1054 must take MATH 1000 first. [4]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. [5] Students will be recommended to complete a minimum of 6 credits at 3000-4000 in Computer Science, Biology, Environmental Sciences, Finance, Economics or Accounting. [6]May take up to 6 credits *G.E. required course **Eng 1030 and **a**ll major courses require a grade of C or better. ***MATH 1000 and ENG 1030 prereqs for CPS 1231 ****CPS 1231 and MATH 1054 prereq. for CPS 2231 WE: Writing Emphasis	

Rev. 07/18/19

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.