

KEAN UNIVERSITY – School of Integrative Science and Technology
(36104) B.S. IN SCIENCE & TECHNOLOGY (Mathematics 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 2022

GENERAL EDUCATION: 34 Semester Hours (S.H.)			
Foundation Requirements^{1,2}: 14 S.H.			
GE 1000	Transition to Kean ³ or GE 3000 Transfer Transition ³	1	
ENG 1030	College Composition ¹	3	
STME 2000	Math. & Comp. Methods of Science I ⁴ &	3	
STME 2099	Math. & Comp. Methods of Science I ⁴ Lab	1	
COMM 1402	Speech Communication As Critical Citizen ¹	3	
GE 2024	Research & Technology	3	
Disciplinary & Interdisciplinary Distribution Requirements²: 20 S.H.			
Humanities: 6 S.H.			
*ENG 2403	World Literature	3	
<i>Take ONE GE Approved course from one area below</i>			
	Fine Arts or Art History		
	Philosophy or Religion		
	Foreign Languages (must take I & II for credit)		
	Music or Theater		
	Interdisciplinary		
Social Sciences: 6 S.H.			
*HIST 1062	Worlds of History	3	
*PSY 1000	General Psychology	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 COURSES¹: 16 S.H.			
PSY 2110	Psychology of Adolescence	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	

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
¹ Foundation Requirements & Additional Required Courses require a grade of C or better, except ENG 1030 and COMM 1402 require B- or better.	
² See prerequisites & equivalencies (on page 2).	
³ 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).	
⁴ Prerequisite of qualifying test score or the equivalent of MATH 1054.	
⁵ A minimum major GPA of 2.75 and minimum grade of C is required in all major courses, except professional education courses and major capstone require a grade of B- or better.	
⁶ Non-Research First Initiative (RFI) students only.	
⁷ Required for RFI students – must complete with RFI sponsor faculty.	
⁸ Students must pass the Praxis I Core and have a 3.0 (or higher) GPA to be declared in the education major.	
⁹ Graduate education courses require a grade of B or better. EMSE 5315 & EMSE 5320 apply to the baccalaureate degree.	

ACADEMIC MAJOR⁵: 61 S.H.			
Program Core Requirements⁵: 12 S.H.			
STME 2200	Math. & Comp. Methods of Sci. III &	3	
STME 2299	Math. & Comp. Methods of Sci. III Lab	1	
<i>Select TWO course sequences from below: (8 total cr. - must take lecture & lab for each course)</i>			
STME 1800	Living Systems II &	3	
STME 1899	Living Systems II Lab	1	
STME 1100	Chemical Systems II &	3	
STME 1199	Chemical Systems II Lab	1	
STME 2800	Physical Systems II &	3	
STME 2899	Physical Systems II Lab	1	
Program Option Requirements⁵: 23-27 S.H.			
MATH 3110	Introduction to Proofs	3	
MATH 3225	Comp. Methods in Matrix and Linear Algebra II	3	
MATH 3342	Euclidean and Non-Euclidean Geometry	3	
MATH 3415	Calculus III	4	
MATH 3455	Differential Equations	3	
STME 4805	Mathematical Modeling with Applications	3	
STME 3610	Current Issues ⁶ OR	1	
STME 2903	Research Experience-RFI ⁷	2	
STME 3903	Advanced Research Experience-RFI ⁷	3	
MATH 3891	History of Math	3	
**Major Capstone Course⁵: 3 S.H.			
STME 4610	Science & Technology Seminar (WE)	3	
Professional Education Requirements^{5,8}: 16 S.H.			
EMSE 2801	Clinical Experience	3	
EMSE 3220	Math Ed. K-12	3	
EDUC 3000	Curriculum, Evaluation & the Learner	3	
EMSE 3903	Teaching English Language Learners	1	
EMSE 5315	Intro to Language Arts & Reading in Teaching Content ⁹	3	
EMSE 5320	Computers in the School Curriculum I ⁹	3	
Major Electives⁵: 3-7 S.H. (select with advisement)			
FREE ELECTIVES: 9 S.H. <i>(at least 50% must be 3000/4000 level)</i>			
			TOTAL CREDITS: