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 STME 2099	Math. & Comp. Methods of Science I[4] & Math. & Comp. Methods of Science I[4] Lab	3 1	
COMM 1402	Speech Communication As Critical Citizen[1]	3	
GE 2024	Research & Technology	3	
Disciplinary & Interdisciplinary Distribution Requirements[2]: 20 S.H.			
***Humanities*: 6 S.H.**			
*ENG 2403	World Literature	3	
*Take **ONE** GE Approved course from one area below*			
	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 STME 2199	Math. & Comp. Methods of Science II & Math. & Comp. Methods of Science II Lab	3 1	
STME 1000 STME 1099	Chemical Systems I & Chemical Systems I Lab	3 1	
ADDITIONAL REQUIRED COURSES[1]: 16 S.H.			
PSY 2110	Psychology of Adolescence	3	
STME 1700 STME 1799	Living Systems I & Living Systems I Lab	3 1	
STME 2700 STME 2799	Physical Systems I & Physical Systems I Lab	3 1	
STME 2300 STME 2399	Probabilistic Methods in Science & Probabilistic Methods in Science Lab	3 1	
STME 1903	Research Methods - RFI	1	

ACADEMIC MAJOR[5]: 61 S.H.			
Program Core Requirements[5]: 12 S.H.			
STME 2200 STME 2299	Math. & Comp. Methods of Sci. III & Math. & Comp. Methods of Sci. III Lab	3 1	
*Select **TWO** course sequences from below: (8 total cr. - must take lecture & lab for each course)*			
STME 1800 STME 1899	Living Systems II & Living Systems II Lab	3 1	
STME 1100 STME 1199	Chemical Systems II & Chemical Systems II Lab	3 1	
STME 2800 STME 2899	Physical Systems II & Physical Systems II Lab	3 1	
Program Option Requirements[5]: 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 STME 2903 STME 3903	Current Issues[6] OR Research Experience-RFI[7] Advanced Research Experience-RFI[7]	1 2 3	
MATH 3891	History of Math	3	
****Major Capstone Course[5]: 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 Electives[5]: 3-7 S.H. *(select with advisement)*			
FREE ELECTIVES: 9 S.H. *(at least 50% must be 3000/4000 level)*			
	TOTAL CREDITS:		

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.