KEAN UNIVERSITY
NATHAN WEISS GRADUATE COLLEGE
NJ CENTER FOR SCIENCE, TECHNOLOGY & MATHEMATICS EDUCATION (STME)
(30104) B.S. in Science and Technology (Mathematics Option): 125 S.H.
(EFFECTIVE: Fall/2009)

START TERM: _____

STUDENT NAME:	Credits	TRANSFER INSTITUTIONS (X)	Credits
STUDENT ID#		**ACADEMIC MAJOR REQUIREMENTS[5]: 39 S.H.**	
GENERAL EDUCATION: 34 Semester Hours (S.H.)		STME 2403 Math. & Computational Methods of Science III (formerly ID 2403)	4
Foundation Requirements: 14 S.H.		STME 2610 Current Issues in Science & Technology I (formerly ID 2610)	1
GE 1000 Transition to Kean[1]	1		
ENG 1030 College Composition[2]	3	STME 3610 Current Issues in Science & Technology II (formerly ID 2611)	1
STME 1403 Math. & Computational Methods of Science I[3]	4		
COMM 1402 Speech Communication As Critical Citizenship[2]	3	MATH 3110 Introduction To Proofs	3
GE 2024 Research & Technology[2]	3	MATH 3225 Computational Methods in Matrix & Linear Algebra II	3
		MATH 3342 Euclidean & Non-Euclidian Geometry	3
DISCIPLINARY / INTERDISCIPLINARY DISTRIBUTION REQUIREMENTS: 20 S.H.		MATH 3451 Calculus III	3
		MATH 3452 Calculus IV	3
Humanities: 6 S.H.		MATH 3455 Differential Equations	3
*ENG 2403 World Literature	3	MATH 3544 Probability & Mathematical Statistics	3
(Select one course from below):		MATH 3891 History of Mathematics WE	3
Fine Arts or Art History	3	MATH 4805 Mathematical Modeling with Applications	3
Music or Theater	3		
Philosophy or Religion	3	**Major/ GE Capstone Course: 3 S.H.**	
Foreign Language[4] (Must take I and II for credit)	3	STME 4610 Science & Technology Seminar WE (formerly ID 4610)	3
Interdisciplinary	3		
Social Sciences: 6 S.H.		**Major Elective (Select w / advisement) 3 S.H.**	
*HIST 1000 History of Civil Society in America	3		3
PSY 1000 General Psychology	3	**FREE ELECTIVES: 12 S.H.**	
		(At least 50% must be at 3000 – 4000 level)	
Science and Mathematics: 8 S.H.			3
STME 1603 Math & Computational Methods of Science II (formerly ID 1603)	4		3
STME 1401 Chemical Systems I (formerly ID 2401)	4		3
			3
ADDITIONAL REQUIREMENTS[2]: 22 S. H.		**PROFESSIONAL EDUCATION REQUIREMENTS: 18 S.H.**	
ID 1225 Critical Issues Contemporary Health	3	Grades of (B-) or better in professional education courses and "Satisfactory" grade in EMSE 3801 are required. Graduate courses require a grade of "B" or better.	
PSY 2110 Psych. Adolescence	3		
STME 1601 Chemical Systems II (formerly ID 2601)	4		
STME 2401 Physical Systems (formerly ID 1601)	4	EMSE 2801 Intro Field Experience Subject Area K-12 (formerly IEL 2801)	3
STME 2601 Living Systems (formerly ID 1401)	4	EMSE 3220 Mathematics Education K-12 (formerly IEL 3220)	3
STME 2603 Probabilistic Methods in Science (formerly ID 2603)	4	EDUC 3000 Curriculum, Evaluation and the Learner	3
		EMSE 3801 Field Experience in Instruction in Subject Areas K-12 (formerly IEL 3801)	2
[1]Required of all Freshmen and Transfers with fewer than 10 credits.		EMSE 3903 Teaching English Language Learners	1
[2]Foundations & Additional Requirements require grade of C or better, except ENG 1030 requires B or better. [3]Prerequisite of qualifying placement test score or the equivalent of MATH 1054.		EMSE 5315 Intro to Language Arts & Reading In Teaching Content Areas	3
[4]Credit granted only upon completion of two semesters of elementary or intermediate foreign language.		EMSE 5320 Computers in the School Curriculum I	3
[5]A minimum grade of C in no more than two major courses, including capstone. A grade of B- or higher in remaining major courses.			
*(G.E) General Education required course.		**TOTAL CREDITS:**	
WE: Writing Emphasis course			

GENERAL EDUCATION INFO & 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
ENG 1030
  Prereq: Placement testing
  Equiv: ENG 1031/32; 1033/34; 1430;
          ENG 1020; 1400

MATH 1000 Prereq: Placement testing

  Equiv: MATH 1001/02; 1003/04; 1051

COMM 1402 Prereq: CS 0411 or 0412 if required by placement testing ENG 1031/32; 1033/34
May be taken concurrently with ENG 1030
Equiv: COMM 1400

GE 2021-2024 Research & Technology is offered as college-based course
GE 2021 College of BPA
GE 2022 College of EDU
GE 2023 College of HSS
GE 2024 College of NAHS
GE 2025 College of VPA
GE 2026 Undecided Majors

  Prereq: CS 0412 if required by placement
        Testing. ENG 1030 or equivalent
        MATH 1000 or equivalent
        COMM 1402 Credit for the first semester may be used as elective credit. Credit for the first semester may be used as elective credit. Credit for the first semester may be used as elective credit.
  Equiv: GE 2020

GE Distribution Courses
All courses under the General Education Disciplinary/Interdisciplinary Distribution requirements must be selected from the Approved General Education Distribution Course List, printed in Registration Bulletin. These courses are designated as GEHU, GESS, GESM, or GEHPE.

GEHU Humanities
GESS Social Sciences
GESM Science and Mathematics
GEHPE Health and Physical Education

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.

HIST 1000 is a required Social Sciences Distribution course with an emphasis on diversity. 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.

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 two semesters of study at the introductory or intermediate level. Credit for the first semester may be used as elective credit.

Major/GE Capstone Course
A Capstone course is a major course that satisfies three credits of GE requirements.
Each major guide sheet will count three credits for the Capstone as either GE credits or major credits, but not both.
UNIVERSITY REQUIREMENT
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.

Course Prerequisites
ENG 2403: ENG 1030 (or equivalent) & completion of any freshmen placement requirements in reading.
PSY 2110: PSY 1000
MATH 3110: MATH 2411 (Calc I) or equivalent
MATH 3225: MATH 2412 (Calc II), MATH 2995 (Matrix & Linear Algebra)
MATH 3342: MATH 2110 (Discrete Structures)
MATH 3451: MATH 2412 (Calculus II) or instructor permission.
MATH 3452: MATH 3451
MATH 3455: MATH 2412 (Calculus II) or instructor permission.
MATH 3544: MATH 2412 (Calculus II) or instructor permission.
MATH 3891: MATH 2412 (Calculus II)
MATH 4805: MATH 3544 (Probability & Mathematical Statistics) or instructor permission.
EMSE 2801: 2.75 GPA, COMM 1402, B- or better in ENG 1030.
EMSE 3220: Declared education major, 2.75 GPA, B- or better EMSE 2801.
EMSE 3801: Declared education major, completion of 65 hours coursework, 2.75 GPA, EDUC 3000.
EMSE 3903: EMSE 3800 or 3801
EDUC 3000: Declared education major, 2.75 GPA, EMSE 2800 or 2801.
STME 1403: Qualifying testing placement or equivalent Math 1054 (Precalculus)
STME 1601: STME 1401
STME 1603: STME 1403
STME 2401: STME 1603
STME 2403: STME 1603
STME 2601: STME 1601
STME 2603: STME 1603
STME 2610: GE 2024
STME 3610: STME 2610, STME 2603, STME 2601
STME 4610: Senior standing in the five year science, technology & math education program.

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