

KEAN UNIVERSITY
NATHAN WEISS GRADUATE COLLEGE
NJ CENTER FOR SCIENCE, TECHNOLOGY & MATHEMATICS EDUCATION (STME)
(30102) B.S. in Science and Technology (Chemistry Option): 128 S.H.
(EFFECTIVE: Fall/2009)

START TERM: _____

STUDENT NAME:	Credits	TRANSFER INSTITUTIONS (X)	Credits
STUDENT ID#			
GENERAL EDUCATION: 34 Semester Hours (S.H.)		ACADEMIC MAJOR REQUIREMENTS⁵: 45 S.H.	
Foundation Requirements: 14 S.H.		STME 1401 Chemical Systems I (formerly ID 2401)	4
GE 1000 Transition to Kean ¹	1	STME 1601 Chemical Systems II (formerly ID 2601)	4
ENG 1030 College Composition ²	3	STME 2603 Probabilistic Methods in Science (formerly ID 2603)	4
STME 1403 Math. & Computational Methods of Science I ³ (formerly ID 1403)	4	STME 2610 Current Issues in Science & Technology (formerly ID 2610)	1
COMM 1402 Speech Communication As Critical Citizenship ²	3	STME 3610 Current Issues in Science & Technology II (formerly ID 2610)	1
GE 2024 Research & Technology ²	3	CHEM 2283 Quantitative Analysis	4
		CHEM 2581 Organic Chemistry Lecture I (formerly 3181)	3
DISCIPLINARY / INTERDISCIPLINARY DISTRIBUTION REQUIREMENTS: 20 S.H.		CHEM 2582 Organic Chemistry Lecture II (formerly 3182)	3
Humanities: 6 S.H.		CHEM 2583 Organic Chemistry Laboratory I (formerly 3183)	2
*ENG 2403 World Literature	3	CHEM 2584 Organic Chemistry Laboratory II (formerly 3184)	2
(Select one course from below):		CHEM 2491 Inorganic Chemistry	3
Fine Arts or Art History	3	CHEM 3284 Instrumental Methods of Analysis WE	4
Music or Theater	3	CHEM 3381 Physical Chemistry Lecture I	3
Philosophy or Religion	3	CHEM 3901 Independent Chemistry Research I	1
Foreign Language ⁴ (Must take I and II for credit)	3	CHEM 4908 Seminar in Chemistry	3
Interdisciplinary	3	Major/ GE Capstone Course: 3 S.H.	
		STME 4610 Science & Technology Seminar WE	3
Social Sciences: 6 S.H.			
*HIST 1000 History of Civil Society in America	3	FREE ELECTIVES: 6 S.H. (At least 50% must be at 3000-4000 level)	
PSY 1000 General Psychology	3		3
			3
Science and Mathematics: 8 S.H.			
STME 1603 Math & Computational Methods of Science II (formerly ID 1603)	4	PROFESSIONAL EDUCATION REQUIREMENTS: 18 S.H.	
STME 2401 Physical Systems (formerly ID 1601)	4	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.	
		EMSE 2801 Intro Field Experience Subject Area K-12 (formerly IEL 2801)	3
ADDITIONAL REQUIREMENTS²: 25 S. H.		EMSE 3230 Science Education K-12 (formerly IEL 3230)	3
ID 1225 Critical Issues Contemporary Health	3	EDUC 3000 Curriculum, Evaluation and the Learner	3
ES 1000 Observing the Earth	3	EMSE 3801 Field Experience in Instruction In Subject Areas K-12 (formerly IEL 3801)	2
PSY 2110 Psych. Adolescence	3	EMSE 3903 Teaching English Language Learners	1
STME 2403 Math. & Computational Methods of Science III (formerly ID 2403)	4	EMSE 5315 Intro to Language Arts & Reading In Teaching Content Areas	3
STME 2601 Living Systems (formerly ID 1401)	4	EMSE 5320 Computers in the School Curriculum I	3
PHYS 2096 Physics II	4		
PHYS 2097 Physics III (formerly PHYS 3097)	4		
*(G.E) General Education required course.			
WE: Writing Emphasis course.		TOTAL CREDITS:	
¹ Required of all Freshmen and Transfers with fewer than 10 credits.			
² Foundations & Additional Requirements require grade of C or better, except ENG 1030 requires B or better.		⁴ Credit granted only upon completion of two semesters of elementary or intermediate foreign language.	
³ Prerequisite of qualifying placement test score or the equivalent of MATH 1054.		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.	

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 ED

GE 2023 College of AHSS

GE 2024 College of NAHS

Prereq: ENG 1030 or equivalent
MATH 1000 or equivalent

Equiv: GE 2020

Course Paired with Reading

Must be taken concurrently with CS 0412 if required by placement testing.

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, GEHPE or GECP.

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.

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

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.

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

PHYS 2096: PHYS 2095 (Physics I), MATH 2412 (Calculus II)

PHYS 3097: PHYS 2096, MATH 3451 (Calculus III)

CHEM 2491: MATH 2411 (Calculus I), C or better in CHEM 1084 (Chemistry II)

CHEM 2283: CHEM 1084 or equivalent with minimum grade of C.

CHEM 2181: CHEM 1084 or instructor permission.

CHEM 2183: CHEM 2181

CHEM 2182: CHEM 2181, CHEM 2183 with minimum grade of C.

CHEM 2184: CHEM 2183 w/minimum grade of C.

CHEM 3284: CHEM 2283, MATH 2411 (Calculus I), PHYS 3097 or instructor permission.

CHEM 3381: CHEM 1084, PHYS 2096 (Physics II), MATH 3451 (Calculus III) or instructor permission.

CHEM 3901: 8 credits in chemistry plus 12 credits in 2000 level science or math & sponsoring faculty member.

CHEM 4908: ALL GELAP requirements & instructor permission.

EMSE 2801: 2.75 GPA, COMM 1402, B- or better in ENG 1030.

EMSE 3230: 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.