

**KEAN UNIVERSITY**  
**NATHAN WEISS GRADUATE COLLEGE**  
**NJ CENTER FOR SCIENCE, TECHNOLOGY & MATHEMATICS EDUCATION (STME)**  
**(30101) B.S. in Science and Technology (Biology Option): 127-128 S.H.**  
**(EFFECTIVE: Fall/2009)**

**START TERM:** \_\_\_\_\_

STUDENT NAME:	Credits	TRANSFER INSTITUTIONS (X)	Credits
STUDENT ID#			
<b>GENERAL EDUCATION: 34 Semester Hours (S.H.)</b>		<b>ACADEMIC MAJOR REQUIREMENTS<sup>5</sup>: 47-48 S.H.</b>	
<b>Foundation Requirements: 14 S.H.</b>		STME 2601 Living Systems (formerly ID1401)	4
GE 1000 Transition to Kean <sup>1</sup>	1	STME 2601 Current Issues in Science & Technology I (formerly ID2610)	1
ENG 1030 College Composition <sup>2</sup>	3	STME 3610 Current Issues in Science & Technology II (formerly ID2611)	1
STME 1403 Math. & Computational Methods of Science I <sup>3</sup>	4	CHEM 2180 Principles of Organic Chemistry	4
COMM 1402 Speech Communication As Critical Citizenship <sup>2</sup>	3	BIO 2500 Principles of Botany	4
GE 2024 Research & Technology <sup>2</sup>	3	BIO 3305 Principles of Microbiology	4
		BIO 3400 Zoology Form & Function	4
<b>DISCIPLINARY / INTERDISCIPLINARY DISTRIBUTION REQUIREMENTS: 20 S.H.</b>		BIO 3403 Anatomy & Physiology I	4
<b>Humanities: 6 S.H.</b>		BIO 3404 Anatomy & Physiology II	4
*ENG 2403 World Literature	3	BIO 3614 Principles of Ecology WE	4
<b>(Select one course from below:</b>	3	BIO 3704 Principles of Genetics	3
Fine Arts or Art History		BIO 4105 Essentials of Biochemistry	4
Music or Theater	3		
Philosophy or Religion	3	<b>Major GE Capstone Course 3 S.H.</b>	
Foreign Language <sup>4</sup> (Must take I and II for credit)	3	STME 4610 Science & Technology Seminar WE (formerly ID 4610)	3
Interdisciplinary	3		
		<b>Major Elective (Select w / advisement) 3-4 S.H.</b>	
<b>Social Sciences: 6 S.H.</b>			3-4
*HIST 1000 History of Civil Society in America	3		
PSY 1000 General Psychology	3	<b>FREE ELECTIVE: 3 S.H.</b>	
			3
<b>Science and Mathematics: 8 S.H.</b>			
STME 1603 Math & Computational Methods of Science II	4		
STME 1401 Chemical Systems I	4	<b>PROFESSIONAL EDUCATION REQUIREMENTS: 18 S.H.</b>	
		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.	
<b>ADDITIONAL REQUIREMENTS<sup>2</sup>: 25 S. H.</b>			
ID 1225 Critical Issues Contemporary Health	3	EMSE 2801 Intro Field Experience Subject Area K-12 (formerly IEL 2801)	3
ES 1000 Observing the Earth	3	EMSE 3230 Science Education K-12 (formerly IEL 3230)	3
PSY 2110 Psych. Adolescence	3	EDUC 3000 Curriculum, Evaluation and the Learner	3
STME 1601 Chemical Systems II (formerly ID 2601)	4	EMSE 3801 Field Experience in Instruction in Subject Areas K-12 (formerly IEL 3801)	2
STME 2401 Physical Systems (formerly ID 1601)	4	EMSE 3903 Teaching English Language Learners	1
STME 2403 Math. & Computational Methods of Science III (formerly ID 2403)	4	EMSE 5315 Introduction to Language Arts & Reading In Teaching Content Areas	3
STME 2603 Probabilistic Methods in Science (formerly ID 2603)	4	EMSE 5320 Computers in the School Curriculum I	3
		<b>TOTAL CREDITS:</b>	
* (G.E) General Education required course.		<sup>4</sup> Credit granted only upon completion of two semesters of elementary or intermediate foreign language.	
<sup>1</sup> Required of all Freshmen and Transfers with fewer than 10 credits.			
<sup>2</sup> Foundations & Additional Requirements require grade of C or better, except ENG 1030 requires B or better.		<sup>5</sup> A minimum grade of C in no more than two major courses, including capstone. A grade of B- or higher in remaining major courses.	
<sup>3</sup> Prerequisite of qualifying placement test score or the equivalent of MATH 1054.		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 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

**CHEM 2180:** CHEM 1084 or instructor permission.

**BIO 2500:** BIO 2400

**BIO 3305:** BIO 2400 or instructor permission.

**BIO 3400:** BIO 2400, CHEM 1084

**BIO 3403:** BIO 2400, CHEM 2180 or CHEM 3181 or instructor permission.

**BIO 3404:** BIO 3403

**BIO 3614:** BIO 2200 or instructor permission

**BIO 3704:** BIO 2400, CHEM 1084

**BIO 4105:** One semester of organic chemistry, BIO 2400 or 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.