

KEAN UNIVERSITY
NATHAN WEISS GRADUATE COLLEGE
NJ CENTER FOR SCIENCE, TECHNOLOGY & MATHEMATICS EDUCATION (STME)
(30106) B.S. in Science and Technology (Computational Mathematics Option): 124 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: 59 S.H.	
Foundation Requirements: 14 S.H.		STME 2603 Probabilistic Methods in Science	4
GE 1000 Transition to Kean ¹	1	STME 2610 Current Issues in Science & Technology I	1
ENG 1030 College Composition ²	3	STME 3610 Current Issues in Science & Technology II	1
STME 1403 Math. & Computational Methods of Science I ³	4	CPS 2231 Computer Organization & Programming	4
COMM 1402 Speech Communication As Critical Citizenship ²	3	CPS 2232 Data Structures & Algorithm Analysis	4
GE 2024 Research & Technology ²	3	CPS 3250 Computer Operating Systems	3
DISCIPLINARY / INTERDISCIPLINARY DISTRIBUTION REQUIREMENTS: 20 S.H.		CPS 3962 Information Systems Analysis & Design OR CPS 4301 Software Engineering I WE	3
Humanities: 6 S.H.		MATH 3451 Calculus III	3
*ENG 2403 World Literature	3	MATH 3452 Calculus IV	3
(Select one course from below)		MATH 3455 Differential Equations	3
Fine Arts or Art History	3		
Music or Theater	3	MATH 3120 Combinatorics	3
Philosophy or Religion	3	MATH 3940 Numerical Analysis	3
Foreign Language ⁴ (Must take I and II for credit)	3	MATH 4805 Math Modeling with Applications	3
Interdisciplinary	3	MATH 5410 Partial Differential Equations OR MATH 5630 Current Topics in Computational Science I	3
Social Sciences: 6 S.H.		MATH 5965 High Performance Computing OR MATH 5631 Current Topics in Computational Science II	3
*HIST 1000 History of Civil Society in America	3		
(Select one course from below)		MAJOR / GE CAPSTONE COURSE: 3 S.H.	
PSY 1000 General Psychology	3	STME 4610 Science & Technology Seminar WE	3
SOC 1000 or ANTH 1800	3		
Economics or Geography	3		
Interdisciplinary	3	MAJOR ELECTIVE: MATHEMATICS, COMPUTER SCIENCE OR SCIENCE (Select w / advisement) 12 S.H.	
Science and Mathematics: 8 S.H.			3
STME 1603 Math & Computational Methods of Science II	4		3
STME 1401 Chemical Systems I	4		3
			3
ADDITIONAL REQUIREMENTS²: 16 S.H.			
STME 2403 Math. & Computational Methods of Science III	4	FREE ELECTIVES: 15 S.H. (At least 50% must be at 3000 – 4000 level)	
STME 1601 Chemical Systems II	4		3
STME 2401 Physical Systems	4		3
STME 2601 Living Systems	4		3
			3
			3
		TOTAL CREDITS:	
¹ Required of all Freshmen and Transfers with fewer than 10 credits. [*] (G.E) General Education required course.		⁴ Credit granted only upon completion of two semesters of elementary or intermediate foreign language.	
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.		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. 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 GECF.

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.

CPS 2231: CPS 1231, MATH 1054 (Precalculus) or computer programming experience & instructor permission.

CPS 2232: CPS 2231, MATH 2110 (Discrete Structures).

CPS 3250: CPS 2232, CPS 2390

CPS 3962: CPS 3351 or instructor permission.

CPS 4301: Completion of CPS core.

MATH 3451: MATH 2412 (Calculus II)

MATH 3452: MATH 3451

MATH 3455: MATH 2412 (Calculus II)

MATH 3120: MATH 2110 (Discrete Structures)

MATH 3940: MATH 2412, CPS 2231

MATH 4805: MATH 3544 (Probability & Mathematical Statistics).

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.

Evaluator's
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Advisor's
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