

KEAN UNIVERSITY
DOROTHY AND GEORGE HENNINGS COLLEGE OF
SCIENCE, MATHEMATICS AND TECHNOLOGY
(CHMED) B.A. IN CHEMISTRY EDUCATION: 120 S.H.

GENERAL EDUCATION: 32 S.H.		ACADEMIC MAJOR	
Essential Learning Courses*: 17 S.H.		Major Required Courses:	
Critical Reading & Academic Study Skills	4	CHEM 1083 Chemistry I ⁴	4
All students must take 1 credit in Academic Study Skills: either GE*1000 or GE*3000	1	CHEM 1084 Chemistry II ⁴	4
All students must take 3 credits in Critical Reading from the GE PLO Course List.	3	CHEM 2283 Quantitative Analysis	4
Written Communication*	3	CHEM 2581 Organic Chemistry I ⁴ CHEM 2581L Organic Chemistry Lab I	3 1
All students must take 3 credits in Written Communication from the GE PLO Course List.		CHEM 2582 Organic Chemistry II CHEM 2582L Organic Chemistry Lab II	3 1
Speech Communication	3	CHEM 3284 Instrumental Methods of Analysis ^{WE}	4
All students must take 3 credits in Speech Communication from the GE PLO Course List.		BCHM 4115 Biochemistry	3
Quantitative & Scientific Reasoning	7	Major Capstone Course	3
All students must take either MATH*1016 or MATH*1054 (3 credits each).	3	CHEM 4908 Seminar in Chemistry ^{WE}	3
FOR EDUCATION MAJORS BIO 1000 ONLY*	4	Professional Education ¹	34
Core Competency Courses: 12 S.H.		Sophomore Level	
Intercultural Knowledge & Understanding	3	ESME 2801 Clinical Experience I in Subject Area Instruction K-12 ³	3
All students must take 3 credits in Intercultural Knowledge & Understanding from the GE PLO Course List.		SPED 2056 Human Exceptionality ³	3
Critical & Creative Thinking	3	Junior Level ⁷	
All students must take 3 credits in the Critical & Creative Thinking from the GE PLO Course List.		EDUC 3000 Curriculum, Evaluation and the Learner	3
Ethical Reasoning	3	RDG 3401 Language Arts/Reading in K-12 Content Area Teaching	3
All students must take 3 credits in Ethical Reasoning from the GE PLO Course List.		EMSE 3122 Technology in Education	3
Wellness	3	EMSE 3903 English Language Learners in American Schools	1
FOR EDUCATION MAJORS PSY 1000 ONLY*	3	Senior Level	
Inquiry & Analysis Passion Project 3 S.H.	3	EMSE 4711 Clinical I Practice in Subject area K-12 ^{9,10}	3
All students must take 3 credits in Inquiry & Analysis from the GE PLO Course List.		EMSE 3230 Science Education K-12 ⁸	9
Additional Required Courses	18	EMSE 4811 Clinical II in Subject Area Instruction K-12 ^{10,11}	3
PSY 2110 Psychology of Adolescence	3	EDUC 4000 Teacher and Classroom	3
Math 1016 Statistics ³ or MATH 1054 Precalculus ⁵	3	Free Electives	6
MATH 2415 Calculus I	4		
PHYS 2091 General Physics I	4		
PHYS 2092 General Physics II	4		
		PROGRAM REVISION DATE (Spring 2026)	

GENERAL EDUCATION AND UNIVERSITY REQUIREMENTS

GENERAL EDUCATION INFORMATION AND REQUIREMENTS

Testing and Placement

Incoming freshmen and transfer students may be placed in specific GE Essential Learning, 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 Essential Learning Courses

GE*1000

Required of all freshmen & transfers entering with 0-29 credits

Pre-requisite: None

Equivalency: ID*1001

GE*3000

Required of transfers entering with 30 credits or more

Pre-requisite: 30 credits and ENG*1030 (or equivalent)

ENG*1030

Pre-requisite: Placement testing or exemption from placement testing

Equivalency: ENG*1031/1032, ENG*1033/1034, ENG*1430, ENG*1620, ENG*1020, ENG*1400

MATH*1016

Pre-requisite: MATH*0901 if required by placement testing

Co-requisite: MATH*0902 should be taken concurrently with Math*1016 if required by placement testing

MATH*1054

Pre-requisite: MATH*0901 if required by placement testing and MATH*1000

COMM*1402

Pre-requisite: ENG*1031/1032 or ENG*1033/1034 if required by placement testing; May be taken concurrently with ENG*1030

Equivalency: COMM*1400

Inquiry & Analysis PLO

GE 2021- 2026: *Research and Technology* is offered as a college-based course.

Pre-requisite: CS*0412 if required by placement testing; Written Communication course

Equivalency: GE*2020

GE*2021: College of Business and Public Management

GE*2022: College of Education & College Health Professions and Human Services

GE*2023: College of Liberal Arts

GE*2024: College of Science, Mathematics, and Technology & College Health Professions and Human Services

GE*2025: Departments of Fine Arts, Music, and Theatre & Michael Graves College

GE*2026: Undecided Majors and other special populations

GE PLO Courses

Approved GE PLO Course List

All courses taken under the General Education Essential Learning and Core Competency requirements must be selected from the Approved General Education PLO Course List.

Foreign Language Credit

The three credits for a foreign language that may satisfy the GE Intercultural Knowledge & Understanding requirement are awarded only upon successful completion of the second of two semesters of study at the introductory or intermediate level. Credit for the first semester may be used as an elective.

UNIVERSITY REQUIREMENTS

GE 1000/3000 Requirement

All undergraduate students must satisfy this University Requirement for Graduation by successfully completing one of the following courses at Kean University: GE 1000 Transition to Kean (all freshmen and transfers entering with 0-29 credits) or GE 3000 Transfer Transitions (transfers entering with 30 credits or more).

Writing-Emphasis Requirement

To graduate, all students are required to complete at least one "Writing Emphasis" course within their major. Such courses are designed to provide students with an opportunity to explore writing as it is done in their chosen field. Typically, Writing Emphasis courses are taken in the junior or senior year, after the student's initial composition courses are completed. Students should consult their major program advisor for specific information about the Writing Emphasis course requirement.

Special Notes:

- * GE required Courses require B grade or higher
- ** All major courses require a grade of C or better
- *** All EDUC, EMSE, RDG, SPED courses require a grade of B or better

¹See Prerequisites & Equivalencies (below).

²University Requirement for Graduation for all undergraduate students that must be satisfied in one of two ways: Complete GE 1000 (all freshmen and transfers entering with 0-29 credits) OR complete GE 3000 (transfers entering with 30 credits or more).

³Requires a grade of B or higher

⁴Requires a grade of C or higher

⁵With qualifying placement test scores, this course may be substituted with a free elective. If you place into MATH 0901 or Math 1000, additional credits will be required beyond the 120 S.H.

⁶candidates must hold a valid substitute credential as a declaration requirement

⁷Should be completed prior to Clinical I

⁸should be done in conjunction with Clinical I

⁹Requires Submission of application for Clinical I prior to registration. Students must submit passing scores for the Praxis Biology Content Knowledge test and the Praxis General Science test prior to Clinical I. Please see the Office of Student Placement and Clinical Experiences for submission deadlines and the application process.

¹⁰Clinical I and II must be done back-to-back and in consecutive semesters

¹¹Clinical II prerequisite: Passing score on the Praxis II: A passing score on the appropriate Praxis II score must be submitted to the advisor and the office of clinical placements by the required deadline. No student may enter Clinical II unless the passing score is submitted as required.

¹²As an NJDOE requirement, Clinical II must be done in the final semester prior to graduation and taken in conjunction with SPED 4200, the capstone education class. Any additional coursework left to that final Clinical II semester is discouraged and may only be done with the written permission of the dean of education. All students are highly encouraged to complete all course requirements beyond EMS 4811 and SPED 4200 prior to this final Clinical II semester, as even a few remaining credits will delay NJDOE's issue date of the Certificate of Eligibility with Advanced Standing.

¹³Students must successfully complete the Kean Educator Evaluation of Performance (KEEP) in order to be eligible for certification.