# KEAN UNIVERSITY
## College of Natural, Applied and Health Sciences
### (Major Code 72110) B.S. in Chemistry: Forensic Science Option - 120 Semester Hours (S.H.)
### Effective Fall 2022
### Minimum 2.5 Cumulative and Major GPA Requirement

| GENERAL EDUCATION: 35 SH | | ACADEMIC MAJOR COURSES: 65 SH | |
|---|---|---|---|
| **Foundation Requirements[1]** | **13 SH** | **Major Required Courses[3]** | **26 SH** |
| GE 1000 Transition to Kean[2] **OR** GE 3000 Transfer Transitions[2] | 1 | CHEM 1084  Chemistry II | 4 |
| | | CHEM 2283 Quantitative Analysis | 4 |
| ENG 1030[3] College Composition | 3 | CHEM 2491 Inorganic Chemistry | 3 |
| MATH 1054 Precalculus | 3 | CHEM 2581 Organic Chemistry Lecture I | 3 |
| COMM 1402 Speech Communication | 3 | CHEM 2582 Organic Chemistry Lecture II | 3 |
| GE 2024 Research & Technology | 3 | CHEM 2581L Organic Chemistry Lab I | 1 |
| **DISCIPLINARY & INTERDISCIPLINARY DISTRIBUTION REQUIREMENTS:** | | CHEM 2582L Organic Chemistry Lab II | 1 |
| **Humanities** (GEHU) | **6 SH** | CHEM 3284 Instrumental Methods of Analysis | 4 |
| ENG 2403 World Literature | 3 | CHEM 3381 Physical Chemistry I | 3 |
| PHIL 2300 Introduction to Ethics | 3 | **Major Required Courses:  Biology** | **8 SH** |
| **Social Sciences** (GESS) | **6 SH** | BIO 1300 General Biology I | 4 |
| HIST 1062 Worlds of History | 3 | BIO 1400 General Biology II | 4 |
| Select <u>one</u> courses from the following | | **Criminal Justice** | **9 SH** |
| Economics/Geography | 3 | CJ 2600 Criminal Justice in America | 3 |
| Political Science | 3 | CJ 3700 Proof and Verification | 3 |
| Psychology | 3 | CJ 4100 Trial Advocacy | 3 |
| Sociology/Anthropology | 3 | **Major Required Courses: Forensic Science** | **18 SH** |
| Interdisciplinary | 3 | FSC 1000 Introduction to Forensic Science | 3 |
| **Science and Mathematics** (GESM) | **7 SH** | FSC 2000 Forensic Science Fundamentals | 3 |
| MATH 1016 Statistics | 3 | FSC 3000 Crime Scene Investigation | 4 |
| CHEM 1083 Chemistry 1 | 4 | FSC 4010 Criminalistics: Trace and Impression Evidence | 4 |
| **Major/GE Capstone[3]** | **3 SH** | FSC 4030 Forensic Chemistry | 4 |
| CHEM 4908 Seminar in Chemistry | 3 | **Free Electives** | **4 SH** |
| **ADDITIONAL REQUIRED COURSES** | **20 SH** | CHEM 1996 Applied Research in Chemistry[5] | 1 |
| MATH 2415 Calculus I | 4 | CHEM 3291, 2, 3 Internship[5] | 1-3 |
| MATH 2416 Calculus II | 4 | BCHM 4115   Biochemistry | 3 |
| MATH 3415 Calculus III | 4 | BCHM 4115L Biochemistry Lab | 1 |
| PHYS 2095 Physics I | 4 | | |
| PHYS 2197 Physics III | 4 | | |
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| **Advisor's Signature:** | | | |
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Minimum cumulative GPA of 2.5 at time of application for acceptance as declared major

Minimum 2.5 cumulative and major GPA requirement.  Graduate Schools likely require a 3.0 minimum for eligibility

[1]See prerequisites & equivalencies

[2]University 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)

[3]ENG 1030, Capstone & Major Courses require C or higher

[4]C or higher needed to progress to next course

[5]Student may use optional Internship or Applied Research courses to fulfill Free Elective.


**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.

<u>**Prerequisites and Equivalencies for GE----Foundations Courses**</u>
**ENG 1030**  Prereq: Placement testing; Equiv:  ENG 1031/32; 1033/34; 1430; ENG 1020; 1400

**MATH 1054 Precalc** Prereq: 3 yrs secondary school math including 2 yrs algebra + 1 yr geometry or equivalent & qualifying score on placement exam or equivalent

**COMM 1402** Prereq: CS 0411 or 0412 if required by testing; ENG1031/32;1033/34Maybe taken concurrently w/ENG1030;Equiv:COMM1400

**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.

<u>**General Education Distribution Courses**</u>

All courses under GE Disciplinary/Interdisciplinary Distribution requirements must be selected from the Approved GE Distribution Course List.
(GEHU   Humanities; GESS   Social Sciences; GESM   Science and Mathematics; GEHPE Health and Physical Education)

<u>**Required GE Distribution Courses**</u>
ENG 2403 is a required Humanities Distribution course with an emphasis on diversity. Prereq: ENG 1030 or equivalent
HIST 1062 is a required Social Sciences Distribution course with an emphasis on diversity.

<u>**Major/GE Capstone Course**</u>  **(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.

<u>**Course Prerequisites (Pre/Corequisites may change, consult Keanwise; Some course may require approved petitions)**</u>

**BIO 1300:** Math 1000 (College Algebra) or the University's math placement exam score to qualify &  Corequisite: MATH 1054 (precalculus) or instructor permission
**BIO 1400:** Prerequisite BIO 1300 and Corequisite CHEM 1083 General Chemistry I
**BCHM 4115:** BIO 1400, BIO 3315, and  BIO 3315L
**BCHM 4115L:** BIO 1400, BIO 3315, and BIO 3315L

**FSC 2000:** FSC 1000 & CJ 2600
**FSC 3000:** CJ 3700 & FSC 2000
**FSC 4010:** CJ 3700 & FSC 2000
**FSC 4030:** CHEM 2581,CHEM 2583 & BIO 4105

**CHEM 1083:** Prerequisite MATH 1000 (College Algebra); Corequisite MATH 1054 (Precalc)
**CHEM 1084:** MATH 1054, & CHEM 1083 with grade of C or better
**CHEM 2283:** CHEM 1084 with grade of C or better
**CHEM 2491**: Math 2415, C or better in CHEM 1084 or permission of instructor
**CHEM 2581:** CHEM 1084 with grade of C or better
**CHEM 2582:** CHEM 2581 with grade of C or better
**CHEM 2581L:** Corequisite of CHEM 2581 with grade of C or better
**CHEM 2582L:** CHEM 2583 with grade of C or better & Corequisite of CHEM 2582
**CHEM 3284:** CHEM 2283, MATH 2415, PHYS 2097, or permission of the instructor
**CHEM 4908:** All GELAP requirements & permission of instructor

**CJ 3700:** CJ 2600 or permission of instructor
**CJ 4100:** CJ 3685, 9 SH of CJ courses or permission of the instructor

**MATH 2415:** MATH 1054 (Precalc)
**MATH 2416:** MATH 2415

**PHYS 2095**: Prerequisite of Math 2415; Corequisite of MATH 2416
**PHYS 2197:** Prerequisite of PHYS 2095 & MATH 2416