### General Education

**Foundation Requirements:** 14 S.H.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>GE 1000</td>
<td>Transition to Kean or GE 3000 Transfer Transition&lt;sup&gt;1&lt;/sup&gt;</td>
<td>1</td>
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<tr>
<td>*ENG 1030</td>
<td>College Composition&lt;sup&gt;2&lt;/sup&gt;</td>
<td>3</td>
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<tr>
<td>*STME 1403</td>
<td>Math. &amp; Computational Methods of Science&lt;sup&gt;3&lt;/sup&gt;</td>
<td>4</td>
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<tr>
<td>*COMM 1402</td>
<td>Speech Communication As Critical Citizen&lt;sup&gt;2&lt;/sup&gt;</td>
<td>3</td>
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<tr>
<td>GE 2024</td>
<td>Research &amp; Technology&lt;sup&gt;2, 7&lt;/sup&gt;</td>
<td>3</td>
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**Credits:** 37 Semester Hours (S.H.)

### Disciplinary & Interdisciplinary Requirements

**Humanities:** 6 S.H.

- **ENG 2403:** World Literature 3
- Select One course from below - see GE Distribution Course List
  - Fine Arts/Art History
  - Philosophy or Religion
  - Foreign Languages
  - Music or Theater
  - Interdisciplinary

**Social Sciences:** 6 S.H.

- **HIST 1062:** Worlds of History 3
- Select One course from below - see GE Distribution Course List
  - Psychology
  - Economics or Geography
  - Political Science
  - Sociology or Anthropology
  - Interdisciplinary

**Science and Mathematics:** 8 S.H.

- **STME 1603:** Math. & Computational Methods of Science II 4
- **STME 1401:** Chemical Systems I 4

**MAJOR / GE CAPSTONE COURSE<sup>6</sup>:** 3 S.H.

- **STME 4610:** Science & Technology Seminar (WE) 3

### Additional Required Courses<sup>5</sup>:** 13 S.H.

- **STME 2601:** Living Systems I 4
- **STME 2401:** Physical Systems I 4
- **STME 2603:** Probabilistic Methods in Science 4
- **STME 1903:** Research Methods - RFI 1

### Program Core Requirements<sup>15</sup>: 18 S.H.

- **STME 1601:** Chemical Systems II 4
- **STME 2602:** Living Systems II 4
- **STME 2681:** Organic Chemistry Honors Lecture I 3
- **STME 2683:** Organic Chemistry Honors Lab I 2
- **STME 2682:** Organic Chemistry Honors Lecture II 3
- **STME 2684:** Organic Chemistry Honors Lab II 2

### Program Option Requirements<sup>6</sup>: 41-45 S.H.

- **CHEM 2293:** Quantitative Analysis 4
- **CHEM 3284:** Instrumental Methods of Analysis (WE) 4
- **BIO 3403:** Anatomy and Physiology I 4
- **BIO 3305:** Principles of Microbiology 4
- **BIO 3709:** Genetics 4
- **BIO 3820:** Basic Tissue Culture 4
- **BIO 4105:** Essentials of Biochemistry<sup>6</sup> OR **STME 3401:** Biochemistry Honors<sup>7</sup> 4
- **BIO 4700:** Molecular Genetics 4
- **STME 5020:** Ethics in Biotechnology 1
- **STME 5103:** Scientific Writing and Presentation 3
- **STME 1605:** Intro to Programming 4
- **STME 3610:** Current Issues<sup>6</sup> OR **STME 2903:** Research Experience - RFI<sup>7</sup> 1
- **STME 3903:** Advanced Research Experience - RFI<sup>7</sup> 2

### MAJOR ELECTIVES<sup>6</sup>: 0-3 S.H.

(Select major elective courses with advisement in STME, BIO or CHEM at the 3000 level or higher)

### Free Electives: 12 S.H.

(Select w/advisement, at least 50% must be at 3000-4000 level)

**Total Credits:**

**Special Notes:**

1. University Requirement for Graduation for all undergraduate students that must be satisfied in one of two ways: Complete GE 1000 (all freshmen & transfers entering with 0-29 credits) or complete GE 3000 (transfers entering with 30 credits or more)
2. *G.E.* General Education required course.
3. Foundation & Additional Requirements require a grade of C or better, except ENG 1030 requires B or better.
4. Prerequisite of qualifying placement test score or the equivalent of MATH 1054.

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<sup>1</sup> Credit granted only upon completion of two semesters of elementary or intermediate foreign language.
<sup>2</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> Non-RFI students only.
<sup>4</sup> Required for RFI students – must complete with RFI sponsor faculty.
<sup>5</sup> WE: Writing Emphasis course.

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Credits

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**TOTAL CREDITS:**