## 2018-19 MAJOR COURSE PLAN

### CIVIL (ENVIRONMENTAL)

#### FIRST YEAR

<table>
<thead>
<tr>
<th>SEMESTER</th>
<th>COURSES</th>
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<tbody>
<tr>
<td>FALL SEMESTER</td>
<td>GE A 4, WRIT 150 4, MATH 125 (GE F) 4, CE 106L 3, ENGR 102 2</td>
</tr>
<tr>
<td>SPRING SEMESTER</td>
<td>GE B 4, CHEM 105aL (GE E) 4, MATH 126 or MATH 129 4, PHYS 151L 4, CE 108 2</td>
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#### SECOND YEAR

<table>
<thead>
<tr>
<th>SEMESTER</th>
<th>COURSES</th>
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<tbody>
<tr>
<td>FALL SEMESTER</td>
<td>CE 210L 3, CHEM 105bL 4, MATH 226 or MATH 229 4, PHYS 152L 4, CE 205 2, OPTIONAL ELECTIVE 1</td>
</tr>
<tr>
<td>SPRING SEMESTER</td>
<td>AME 310 3, ENE 200 3, MATH 245 4, CE 225 3, CE 235 3, OPTIONAL ELECTIVE 2</td>
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#### THIRD YEAR

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<tr>
<th>SEMESTER</th>
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<tr>
<td>FALL SEMESTER</td>
<td>CE 309 3, ENGR 102 4, CE 408 3, CE 358 3, CE 453 3, ISE 460 3, OPTIONAL ELECTIVE 3</td>
</tr>
<tr>
<td>SPRING SEMESTER</td>
<td>GE B 4, DESIGN KERNEL, BISC 220L (GE D) 3, OPTIONAL ELECTIVE 3</td>
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#### FOURTH YEAR

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<tr>
<th>SEMESTER</th>
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<tbody>
<tr>
<td>FALL SEMESTER</td>
<td>GE C 4, DESIGN KERNEL, WRIT 340 3, CE 334L 3, OPTIONAL ELECTIVE 5, ENE 428 3</td>
</tr>
<tr>
<td>SPRING SEMESTER</td>
<td>GE C 4, CE 467L 3, CE 485 3, ENE 426 3, OPTIONAL ELECTIVE 5</td>
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### MATHEMATICS (16 UNITS)
- MATH 125: Calculus I
- MATH 126 or MATH 129: Calculus II
- MATH 226 or MATH 229: Calculus III
- MATH 245: Mathematics of Phys. and Engr.

### PHYSICS (8 UNITS)
- PHYS 151L: Mechanics and Thermodynamics
- PHYS 152L: Electricity and Magnetism

### OTHER SCIENCE (12 UNITS)
- CHEM 105A: General Chemistry
- CHEM 105BL: General Chemistry
- BISC 250L: Cell Biology and Physiology

### GENERAL EDUCATION (32 UNITS)
- GE A: The Arts (1 Course)
- GE B: Humanistic Inquiry (2 Courses)
- GE C: Social Analysis (2 Courses)
- GE D: Life Sciences (1 Course)
- GE E: Physical Sciences (1 Course)
- GE F: Quantitative Reasoning (1 Course)
- GE G, H: Global Perspectives (2 Courses)*
- GESM: General Education Seminar (1 Course)*

### WRITING (7 UNITS)
- WRIT 150: Writing and Critical Reasoning
- WRIT 340: Advanced Writing

### ENGINEERING (67 UNITS)
- AME 310: Engineering Thermodynamics I
- CE 106L: Design & Planning of CE Systems
- CE 108: Intro. to CE Computer Methods
- CE 205: Statics
- CE 210L: Intro. to Env. Engr. Microbiology
- CE 225: Mechanics of Deformable Bodies
- CE 309: Fluid Mechanics
- CE 334L: Mechanical Behavior of Materials
- CE 358: Theory of Structures I
- CE 451: Water Resources Engineering
- CE 453: Water Quality Control
- CE 463L: Water Chemistry and Analysis
- CE 467L: Geotechnical Engineering
- CE 485: Wastewater Treatment Design
- ENE 200: Environmental Engr. Principles
- ENE 426: Particulate Air Pollutants: Properties/Behavior/Measurement
- ENE 428: Air Pollution Fundamentals
- ENGR 102: Engineering Freshman Academy
- ISE 460: Engineering Economy

### DESIGN KERNEL
- Choose two from CE 465, 486, 476, 482, 484, or ENE 486.

### SPECIAL NOTES
- Courses with this symbol may be satisfied with AP, IB or A-Level exams. See page 22 for more information.
- GE: Engineering students are encouraged to satisfy GE G and GE H with a course that also satisfies a Core Literacy. GE H may be satisfied by exam. Additionally, your GESM course should be taken in categories A, B, C, or D only. See page 21 for more information and consult your advisor for detailed assistance.
- OPTIONAL ELECTIVES: Consult with your academic advisor to explore optional elective courses. These courses are not required.
- CE 205, 225, 309, AND 235: Minimum grade of “C” is required.
- DESIGN KERNEL: Choose two from CE 465, 486, 476, 482, 484, or ENE 486.