# 2018–19 Major Course Plan

## Environmental Engineering

### First Year

#### Fall Semester
- **GE A**
  - WRIT 150 4
- **MATH 125 (GE F)**
  - 4
- **CE 110**
  - 3
- **ENGR 102**
  - 2

#### Spring Semester
- **GE B**
  - CHEM 105aL (GE E) 4
- **MATH 126 or MATH 129**
  - 4
- **PHYS 151L (GE E)**
  - 4
- **CE 108**
  - 2

### Second Year

#### Fall Semester
- **CE 205**
  - 2
- **CHEM 105bL**
  - 4
- **MATH 226 or MATH 229**
  - 4
- **PHYS 152L**
  - 4
- **CE 210L**
  - 3

#### Spring Semester
- **GE C**
  - BISC 220L (GE D) 4
- **MATH 245**
  - 4
- **ENE 200**
  - 3

### Third Year

#### Fall Semester
- **CE 309**
  - 3
- **CE 408**
  - 3
- **CE 453**
  - 3
- **WRIT 340**
  - 3
- **ISE 460**
  - 3

#### Spring Semester
- **ENE 428**
  - 3
- **CHEM 322aL**
  - 3
- **DEIS 483**
  - 3

### Fourth Year

#### Fall Semester
- **GE B**
  - CHEM 330 (Fundamentals) 3
- **CE 484**
  - 3
- **DEIS 476**
  - 3

#### Fall Semester
- **GE C**
  - GEOL 305L 4
- **CE 465**
  - 3
- **ENE 426**
  - 3
- **CE 485**
  - 3

### 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

### Chemistry (14 Units)
- CHEM 105AL: General Chemistry
- CHEM 105BL: General Chemistry
- CHEM 322AL: Organic Chemistry

### Other Science (8 Units)
- BISC 220L: Cell Biology and Physiology
- GEOL 305L: Intro to Engr. Geology

### 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 (62 Units)
- CE 110: Intro. to Environmental Engr.
- CE 108: Intro. to CE Computer Methods
- CE 205: Statics
- CE 210L: Intro. to Engr. Microbiology
- CE 309: Fluid Mechanics
- CE 408: Risk Analysis in Civil Engr.
- CE 451: Water Resources Engineering
- CE 453: Water Quality Control
- CE 463L: Water Chemistry and Analysis
- CE 484: Water Treatment Design
- CE 485: Wastewater Treatment Design
- CHE 330: Chemical Engr. Thermodynamics
- 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
- PTE 463L: Intro. to Transport Processes

### Optional Electives:
- Consult with your academic advisor to explore optional elective courses. These courses are not required.

### Design Kernel:
- Choose from CE 443, 466, 476, or CHE 442.

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*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.

- **ENE 200, 426, 428, 486, and CE 309**: Minimum grade of “C” is required.

- **DESIGN KERNEL**: Choose from CE 443, 466, 476, or CHE 442.