# ENVIRONMENTAL ENGINEERING

## FIRST YEAR

### FALL SEMESTER
- **GE A**
  - WRIT 150 4
- **MATH 126 (GE F)**
  - CE 110 4
- **MATH 125**
  - ENGR 102 2
  - OPTIONAL ELECTIVE 2

### SPRING SEMESTER
- **GE B**
  - CHEM 105aL (GE E)
  - MATH 226 or MATH 229
  - PHYS 151L (GE E)
  - CE 108 2

## SECOND YEAR

### FALL SEMESTER
- **EN 215**
  - CHEM 105bL
  - MATH 245 4
  - PHYS 152L
  - CE 119

### SPRING SEMESTER
- **CHEM 322aL**
  - ENE 200
- **ENE 410**
  - BISC 220L (GE D)
  - OPTIONAL ELECTIVE 3

## THIRD YEAR

### FALL SEMESTER
- **GE B**
  - CE 408
- **GE C**
  - WRIT 340
  - ISE 460
  - OPTIONAL ELECTIVE

### SPRING SEMESTER
- **ENE 428**
  - CHEM 105bL
  - ENE 300
- **CE 451**
  - CE 363L
  - CE 402

## FOURTH YEAR

### FALL SEMESTER
- **GE C**
  - CHE 330
  - CE 410L
  - CE 400
  - OPTIONAL ELECTIVE

### SPRING SEMESTER
- **SSCI 382L**
  - CHE 480
  - CE 485
  - CE 426
  - OPTIONAL ELECTIVE

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### MATHEMATICS (12 UNITS)
- 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 (12 UNITS)
- CHEM 105AL: General Chemistry
- CHEM 105BL: General Chemistry
- CHEM 322AL: Organic Chemistry

### OTHER SCIENCE (8 UNITS)
- BISC 220L: Cell Biology and Physiology
- SSCI 382L: Principles of Geographic Information Science

### 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 (66 UNITS)
- CE 108: Intro. to CE Computer Methods
- CE 110: Intro. to Environmental Engineering
- CE 119: Probability Concepts and Civil Engineering
- CE 363L: Water Chemistry and Analysis
- CE 400: Risk & Decision Analysis in Civil Engr.
- CE 410L: Introduction to Environmental Engineering Microbiology
- CE 451: Water Resources Engineering
- CE 484: Water Treatment Design
- CE 485: Civil & Environmental Engr. Capstone Design
- CHE 330: Chemical Engr. Thermodynamics
- ENE 200: Environmental Engr. Principles
- ENE 215: Energy Systems and Environmental Tradeoffs
- ENE 300: Contaminant Transport in the Environment
- ENE 400: Quantitative Sustainability
- ENE 410: Environmental Fluid Mechanics
- ENE 426: Particulate Air Pollutants: Properties/Behavior/Measurement

**EN 428**: Air Pollution Fundamentals

**ENGR 102**: Engineering Freshman Academy

**ISE 460**: Engineering Economy

### SPECIAL NOTES
- Courses with the AP/IB symbol may be satisfied with AP, IB or A-Level exams. See page 17 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 410**: Minimum grade of “C” is required.