

# Integrative Engineering – Environment & Energy Focus

## Typical Four-year Schedule

### First Year:

#### Fall

ES 101 Intro to Eng  
MATH 161 Calculus I  
CHEM 107 General Chemistry I (L)  
First Year Seminar

#### Spring

ES 103 Systems I  
MATH 162 Calculus II  
PHYS 131/151 Physics I / Acc. Physics (L)  
CHEM 108 General Chemistry II/Elective

### Second Year:

#### Fall

ES 201 Systems II (L)  
MATH 263 Calculus III  
ES 231 Materials/Elective  
CS 110 Computer Programming  
CHEM 108 General Chemistry II /Elective\*

#### Spring/Study Abroad\*\*

CS 110/Elective  
MATH 264 DEQs with Linear Algebra  
ES 231 Materials/Elective  
Elective  
Elective

### Third Year:

#### Fall

CE 321 Env Eng & Sci (L)  
CE 251 Fluids/ChE 311 Transport  
or M, S, Eng Elective (see list)  
ES 254 Thermodynamics  
Engineering or Related Elective (see list)  
EGRS 251 Intro to Eng Public Policy

#### Spring

ES 303 Environment & Energy Systems  
ME 362 Fluids\*\*\*/M, S Elective (see list)  
EGRS 352 Energy, Techn & Modern World  
Engineering or Related Elective (see list)  
Elective

### Fourth Year:

#### Fall

Capstone I\*\*\*\*  
Engineering Elective (see list)  
Elective  
Elective

#### Spring

Capstone II\*\*\*\*  
Related Elective (see list)  
Elective  
Elective

\* If you are especially interested in ecological applications in engineering, you may want to take BIOL 111 instead of CHEM 108

\*\*If study abroad, a Lafayette faculty-led program for engineering students or the DIS-Stockholm program is recommended – discuss the options with your advisor

\*\*\*take ME 362 this semester if you did not previously take CE 251 or ChE 311

\*\*\*\*two-semester capstone course offered by CE or ME related to Environment & Energy – under certain circumstances, Honors Thesis (ES 495 & ES 496) can be substituted for capstone

Electives are used to fill the Common course of study (CCS) requirements: <https://ccs.lafayette.edu/chart/>

Note 1: Your 26 total courses for the IntE major must include 8 math/sci courses, EGRS 251, 13 engineering/cs courses + 2 M,S, Eng electives + 2 Environment & Energy related electives from any Division of the College.

Note 2: If you enter Lafayette with AP credit (e.g. for Calculus), talk to your advisor about how this schedule could be modified for your particular situation.

Note 3: If you switch to IntE in your second year, move ES 103 to spring second year, and ES 201 to fall third year.