

## Integrative Engineering – Robotics 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 I (L)  
Elective

### Second Year:

#### Fall

ES 201 Systems II (L)  
MATH 263 Calculus III  
PHYS 133/153 Physics II / Acc. Physics II (L)  
CS 104 or 105  
EGRS251 Intro to Eng and Pub Pol/Elective

#### Spring / Study Abroad\*

ECE 211 Digital Circuits I (L) / Elective  
MATH 264 DEQs with Linear Algebra  
ME 240 Dynamics  
Elective  
Elective

### Third Year:

#### Fall

ECE 322 Intro. to Solid State Circuits (L)  
**OR** ME 210 Manufacturing and Design (L)  
ECE 331 Signals and Systems (L)/Elective  
CE 251 Fluids/ChE 311 Transport / Elective  
EGRS251 Intro to Eng and Pub Pol/Elective  
ES 231/ ES 232 Materials or Biomaterials

#### Spring

ES 302 Robotics Systems and Design  
  
ME 331 Instrum and Data Acq (L)\*\*/Elective  
ME 362 Fluid Mechanics\*\*\* / Elective  
ECE 211 Digital Circuits I (L)/Elective  
M, S, Eng Elective (see list)

### Fourth Year:

#### Fall

Capstone I\*\*\*\*  
ECE 433 **OR** ME 480 Control Systems (L)  
Related Elective (see list)  
Elective

#### Spring

Capstone II\*\*\*\*  
M, S, Eng Elective (see list)  
Related Elective (see list)  
Elective

*\*If study abroad, a Lafayette faculty-led program for engineering students is recommended*

*\*\*Take ME 331 this semester if you did not previously take ECE 331*

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

*\*\*\*\*two-semester capstone course offered by ECE or ME related to Robotics – 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 Robotics 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*