# Electrical & Computer Engineering

## First Year

### Fall Semester
- **EE 141**: Applied Linear Algebra for Engineering (4 units)
- **EE 155**: Intro. to Electrical Engineering (4 units)
- **EE 105** (MATH 125): Intro. to Comp. Programming for EE (4 units)
- **WRIT 150**: Writing and Critical Reasoning (3 units)
- **ENGR 102**: Engineering Freshman Academy (4 units)

### Spring Semester
- **MATH 129**: Calculus II (4 units)
- **PHYS 171L (GE E)**: Applied Physics I: Mechanics (4 units)
- **EE 109**: Intro. to Embedded Systems (4 units)
- **GE A**: Arts (1 Course) (4 units)
- **OPTIONAL ELECTIVE** (2 units)

## Second Year

### Fall Semester
- **MATH 229**: Mathematics of Phys. and Engr. I (4 units)
- **PHYS 172L**: Applied Physics II: Electricity, Magnetism and Optics (4 units)
- **EE 250L**: Distributed Systems for the Internet of Things (4 units)
- **GE B**: Humanistic Inquiry (2 Courses) (4 units)
- **OPTIONAL ELECTIVE** (2 units)

### Spring Semester
- **MATH 245**: Mathematics of Phys. and Engr. II (4 units)
- **EE 370**: Intro. to Comp. Programming for EE (4 units)
- **GE C**: Social Analysis (2 Courses) (4 units)
- **OPTIONAL ELECTIVE** (2 units)

## Third Year

### Fall Semester
- **EE 364**: Intro. to Probability & Statistics (4 units)
- **PHYS 173L**: Applied Physics III: Topics in Modern Physics (4 units)
- **EE 301L**: Linear Systems (4 units)
- **WRIT 340**: Advanced Writing (3 units)
- **OPTIONAL ELECTIVE** (3 units)

### Spring Semester
- **EE ELECTIVE** (3-4 units)
- **EE ELECTIVE** (3-4 units)
- **GE ELECTIVE** (3-4 units)
- **GE D**: Life Sciences (1 Course) (4 units)
- **OPTIONAL ELECTIVE** (2-4 units)

## Fourth Year

### Fall Semester
- **EE ELECTIVE** (3-4 units)
- **GE B**: Humanistic Inquiry (2 Courses) (4 units)
- **REQUIRED ELECTIVE** (4 units)
- **REQUIRED ELECTIVE** (4 units)
- **OPTIONAL ELECTIVE** (3 units)

### Spring Semester
- **CAPSTONE DESIGN ELECTIVE** (4 units)
- **GE C**: Social Analysis (2 Courses) (4 units)
- **REQUIRED ELECTIVE** (4 units)
- **REQUIRED ELECTIVE** (4 units)
- **OPTIONAL ELECTIVE** (2 units)

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**Mathematics (12 Units)**
- **EE 141**: Applied Linear Algebra for Engineering
- **MATH 129**: Calculus II
- **MATH 245**: Mathematics of Phys. and Engr. II

**Physics (12 Units)**
- **PHYS 171L**: Applied Physics I: Mechanics
- **PHYS 172L**: Applied Physics II: Electricity, Magnetism and Optics
- **PHYS 173L**: Applied Physics III: Topics in Modern Physics

**Biological Science (4 Units)**
- Any GE D will satisfy this requirement.

**General Education (22 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 (56 Units)**
- **EE 105**: Intro. to Electrical Engineering
- **EE 109**: Intro. to Embedded Systems
- **EE 155**: Intro. to Comp. Programming for EE
- **EE 202L**: Linear Circuits
- **EE 250L**: Distributed Systems for the Internet of Things
- **EE 301L**: Linear Systems
- **EE 370**: Electromagnetics for Engineering Systems
- **EE 355**: Software Design for Engineers
- **EE 364**: Intro. to Probability & Statistics
- **ENGR 102**: Engineering Freshman Academy
- **EE ELECTIVES**: EE Electives

**Capstone Design Elective**

**Other Courses (15 Units)**

**Required Electives**

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**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.

**Required Elective**: Required electives are needed to meet minimum unit requirement and can be met with AP/IB and transfer credit.

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

**EE Electives**: Minimum 16 units of advisor approved, upper-division EE Electives, including the Capstone Design Elective. Refer to the diagram on the facing page.

**Capstone**: Take one Capstone Course. Refer to the diagram on the facing page.