Computer engineers design computer systems, both hardware and software, to create new technologies and meet the ever-changing needs of society. The field of computer engineering covers a wide range of topics including computer architecture, operating systems, communications, computer networks, robotics, artificial intelligence, supercomputers, computer-aided design and neural nets. Whether designing and developing new products or improving manufacturing processes, computer engineers work at the frontier of technology.

### Freshman Year

**FALL SEMESTER**

- EGR 101 - ENGINEERING EXPLORATION I - 1
- EGR 102 - FUNDAMENTALS OF ENGINEERING COMPUTING - 2
- Choose CHE 105 or PHY 231 - 4
- PHY 241 - GENERAL UNIVERSITY PHYSICS LABORATORY - 1
- UK Core - Comp. & Comm. I - 3
- MA 113 - CALCULUS I - 4

**TOTAL HOURS: 15**

Total Freshman Hours: 32

**SPRING SEMESTER**

- EGR 103 - ENGINEERING EXPLORATION II - 2
- UK Core - Comp. & Comm. II - 3
- MA 114 - CALCULUS II - 4
- Choose CHE 105 or PHY 231 - 4
- CS 215 - INTRODUCTION TO PROGRAM DESIGN, ABSTRACTION, AND PROBLEM SOLVING - 4

**TOTAL HOURS: 17**

### Sophomore Year

**FALL SEMESTER**

- MA 213 - CALCULUS III - 4
- PHY 232 - GENERAL UNIVERSITY PHYSICS - 4
- PHY 242 - GENERAL UNIVERSITY PHYSICS LABORATORY - 1
- CS 216 - INTRODUCTION TO SOFTWARE ENGINEERING TECHNIQUES - 3
- CPE 282 - DIGITAL LOGIC DESIGN - 4

**TOTAL HOURS: 16**

Total Sophomore Hours: 34

**SPRING SEMESTER**

- MA 214 - CALCULUS IV - 3
- EE 211 - CIRCUITS I - 4
- CPE 287 - INTRODUCTION TO EMBEDDED SYSTEMS - 4
- CS 270 - SYSTEMS PROGRAMMING - 3
- CS 275 - DISCRETE MATHEMATICS - 4

**TOTAL HOURS: 18**

### Junior Year

**FALL SEMESTER**

- EE 223 - AC CIRCUITS - 4
- CS 315 - ALGORITHM DESIGN AND ANALYSIS - 3
- CPE 380 - COMPUTER ORGANIZATION - 3
- STA 381 - ENGINEERING STATISTICS-A CONCEPTUAL APPROACH - 3
- UK Core - Humanities - 3

**SPRING SEMESTER**

- EE 421G - SIGNALS AND SYSTEMS - 3
- EE 461G - INTRODUCTION TO ELECTRONICS - 3
- CPE 480 - ADVANCED COMPUTER ARCHITECTURE - 3
- CPE Elective - 3
- Technical Elective - 3
- UK Core - Social Sciences - 3
### TOTAL HOURS: 16

Total Junior Hours: 34

### TOTAL HOURS: 18

### Senior Year

#### FALL SEMESTER
- **CPE 490 - ECE CAPSTONE DESIGN I** - 3
- CPE Elective - 3
- Technical Elective - 3
- Supportive Elective - 3
- UK Core - Community, Culture and Citizen - 3

**TOTAL HOURS: 15**

#### SPRING SEMESTER
- **CPE 491 - ECE CAPSTONE DESIGN II** - 3
- Hardware Elective - 3
- Software Elective - 3
- CPE Elective - 3
- UK Core - Global Dynamics - 3

**TOTAL HOURS: 15**

Total Senior Hours: 30

### Total Minimum hours Required for Degree: 130 hours

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