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**

**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**

Total Freshman Hours: 32

### 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**

**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**

Total Sophomore Hours: 34

### 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
<table>
<thead>
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<th>TOTAL HOURS: 16</th>
<th>TOTAL HOURS: 18</th>
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<td>Total Junior Hours: 34</td>
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**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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