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**
Total Junior Hours: 34

### 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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