Computer scientists identify and solve computational problems in all areas of modern life. They use a combination of technical skills and creativity to design and build software, formulate solutions to computing problems and invent new and better ways of using computers. The discipline of computer science has many challenging, interesting and socially important careers that appeal to a diverse range of people. Computer scientists are not only employed by software companies but also by health care companies, government agencies and educational institutions. In short, the computer science profession is multifaceted and has wide-ranging applications. Computers are continually changing, so those who choose a career in computer science will become lifelong learners and will always be on the cutting edge of new trends in 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

**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: 15**

Total Freshman Hours: 32

### Sophomore Year

**FALL SEMESTER**

- CS 216 - INTRODUCTION TO SOFTWARE ENGINEERING TECHNIQUES - 3
- EE 280 - DESIGN OF LOGIC CIRCUITS - 3
- MA 213 - CALCULUS III - 4
- CS 275 - DISCRETE MATHEMATICS - 4
- UK Core - Social Sciences - 3

**SPRING SEMESTER**

- CS 270 - SYSTEMS PROGRAMMING - 3
- CS 315 - ALGORITHM DESIGN AND ANALYSIS - 3
- Technical Elective - 3
- Science Elective (UK Core) - 3
- UK Core - Humanities - 3

**TOTAL HOURS: 15**

Total Sophomore Hours: 32

### Junior Year

**FALL SEMESTER**

- CS 371 - INTRODUCTION TO COMPUTER NETWORKING - 3
- CS/MA 321 --OR-- MA 322 - 3
- CS Elective - 3
- CS Elective - 3

**SPRING SEMESTER**

- CS 375 - LOGIC AND THEORY OF COMPUTING - 3
- CS Elective - 3
- CS Elective - 3
- Science Elective (Nat Sci) - 3
- Technical Elective - 3
Senior Year

**FALL SEMESTER**
- CS 498 - SOFTWARE ENGINEERING FOR SENIOR PROJECT - 3
- CS Elective - 3
- Technical Elective - 3
- Free Elective (4 hours) - 4
- UK Core - Global Dynamics - 3

**TOTAL HOURS: 16**
Total Senior Hours: 31

**SPRING SEMESTER**
- CS 499 - SENIOR DESIGN PROJECT - 3
- CS Elective - 3
- Technical Elective - 3
- Non-Technical Elective - 3
- Free Elective (3 hours) - 3

**TOTAL HOURS: 15**

Total Minimum hours Required for Degree: 128 hours