Professional Preparation Curriculum Planning

Computers

In addition to the required courses in the BSEE curriculum and flowchart, if you are interested in careers in any of the following Electrical Engineering Specialty Areas, we would recommend that you choose from the following Engineering Support Electives and Technical Electives.

**Digital IC Design:**
- CSC/CPE 102  Fundamentals of CS II (3+1)
- or CSC/CPE 202  Data Structures (3+1)
- CSC/CPE 103  Fundamentals of CS III (3+1)
- or CSC/CPE 203 Object Oriented Program (3+1)
- CPE 315 Computer Architecture (4)
- EE 431/CPE 441  Computer-Aided Design of VLSI Devices (4) [F]
- CPE/EE 439 Intro. to Real-Time Operating Systems (3+1) [F]
- EE 523 Digital Systems Design (3+1) [F]
- EE 521 Computer Systems with Lab (3+1) [S]

**Computer IC Architect:**
- CSC/CPE 102  Fundamentals of CS II (3+1)
- or CSC/CPE 202  Data Structures (3+1)
- CSC/CPE 103  Fundamentals of CS III (3+1)
- or CSC/CPE 203 Object Oriented Program (3+1)
- CPE 315 Computer Architecture (3+1)
- EE 431/CPE 441  Computer-Aided Design of VLSI Devices (4) [F]
- CPE/EE 439 Intro. to Real-Time Operating Systems (3+1) [F]
- EE 523 Digital Systems Design (3+1) [F]
- EE 521 Computer Systems with Lab (3+1) [S]
- CPE 515 Computer Architecture* (3+1) [W]
  * Not currently an approved Technical Elective

**FPGA Designer:**
- CSC/CPE 102  Fundamentals of CS II (3+1)
- or CSC/CPE 202  Data Structures (3+1)
- CSC/CPE 103  Fundamentals of CS III (3+1)
- or CSC/CPE 203 Object Oriented Program (3+1)
- CPE 315 Computer Architecture (3+1)
- CPE/EE 439 Intro. to Real-Time Operating Systems (3+1) [F]
- EE 523 Digital Systems Design (3+1) [F]

**Roboticist:**
- CPE 102  Fundamentals of CS II (4)
- ME 305 Intro to Mechatronics (3+1)
- CPE/EE 428  Computer Vision (3+1) [W]
- ME 405  Mechatronics (3+1) [W,S]
- CPE/EE 439 Intro. to Real-Time Operating Systems (3+1) [F]
- EE 432  Digital Control Systems (3) [F]
- EE 472  Digital Control Systems Lab (1) [F]
- CPE 416 Autonomous Mobile Robotics (3+1)