## Major Concentration Areas

### Advanced Electronic and Photonic Devices

- **33 credits**
- **Required:**
  - 5 | EE 331
  - 5 | EE 361
  - 4 | EE 482
  - 4 | EE 485
  - 3 | EE 486
  - 4 | EE 484
- **Recommended:**
  - 3 | EE 421
  - 5 | EE 473

### Biomedical Instrumentation (RETIRED WINTER 2022)**

- **36 – 40 credits**
- **Required:**
  - 4 | EE 416
  - 4 | EE 417
  - 3 | EE 418
  - 4 | EE 419
  - 4 | EE 420*
- **Recommended:**
  - 5 | EE 271
  - 5 | EE 361
  - 4 | EE 342
  - 4 | EE 447
- **(RETIRED WINTER 2022)**
- **Recommended:**
  - 3 | EE 421
  - 5 | EE 473

### Embedded Computing Systems

- **29 credits**
- **Required:**
  - 5 | EE 473
- **Recommended:**
  - 5 | EE 475*

### Integrated Systems

- **30 credits**
- **Required:**
  - 5 | EE 331
  - 5 | EE 332
  - 5 | EE 361
  - 4 | EE 433
  - 4 | EE 437*
- **Recommended:**
  - 5 | EE 271
  - 5 | EE 361

### Communications

- **19 credits**
- **Required:**
  - EE 497/498*
- **Recommended:**
  - EE 271
  - EE 361

### Controls

- **25 credits**
- **Required:**
  - EE 421
  - EE 419
  - EE 420*
  - EE 497/498*
- **Recommended:**
  - 5 | EE 271
  - 5 | EE 361
  - 4 | EE 342

### Digital Signal and Image Processing

- **27 credits**
- **Required:**
  - EE 497/498*
- **Recommended:**
  - EE 271
  - CSE 374
  - EE 419

### Digital VLSI

- **40 credits**
- **Recommended:**
  - EE 342
  - EE 432

### Neural Engineering

- **27 credits**
- **Required:**
  - EE 331
  - EE 342
  - EE 416
  - EE 442
  - EE 460
  - EE 466
  - EE 461*
- **Recommended:**
  - EE 271
  - EE 361

### Power Electronics and Drives

- **28 credits**
- **Required:**
  - EE 332
  - EE 423
  - AMATH 342
  - Phil 442 or
  - Phil 160
- **Recommended:**
  - EE 482
  - EE 473

### Sustainable Power Systems

- **31 credits**
- **Required:**
  - EE 331
  - EE 351
  - EE 447
  - EE 452
  - EE 454
  - EE 455
  - EE 456*
- **Recommended:**
  - ECON 200
  - EE 419
  - EE 453
  - EE 457

*Capstone Design Course

Where applicable, a concentration-specific capstone may be replaced with the ENGINE capstone (EE 497/498).

Students in multi-quarter capstones must complete all courses in the capstone sequence to receive credit.

**Biomedical Instrumentation** has been retired effective winter 2022. Any student admitted to the major before winter 2022 will still have this as a concentration option, but any student admitted winter 2022 and onward will not.