

ECE Track Courses

Computer Engineering Options

- **Hardware Emphasis**
ECE 338 – Intermediate Logic Design *Prerequisite(s): 238L*
ECE 438 – Design of Computers *Prerequisite(s): 338, 344L*
- **Software Emphasis**
ECE 335 – Integrated Software Systems *Prerequisite(s): 330*
ECE 435 – Software Engineering *Prerequisite(s): 331, 335*

Electrical Engineering Options

- **Systems and Controls:**
ME 481/581 – Digital Control of Mechanical Systems *Prerequisite(s): ME 380*
ECE 446 – Design of Feedback Control Systems *Prerequisite(s): ECE 345*
- **Energy/Power Systems:**
ECE 482/582 – Electric Drives and Transformers *Prerequisite(s): 213*
ECE 483/583 – Power Electronics *Prerequisite(s): 321L, 371, 381*
ECE 484/584 – Photovoltaics *Prerequisite(s): 381*
ECE 488/588 – Smart Grid Technologies *Prerequisite(s): 482, 483, 484*
- **Signals and Communications:**
ECE 439 – Intro to Digital Signal Processing *Prerequisite(s): 314*
ECE 442 – Intro to Wireless Communications *Prerequisite(s): 314, 360*
- **Microelectronics:**
ECE 471– Materials and Devices II *Prerequisite(s): 360, 371*
ECE 474L/574L/NSMS 574L – Microelectronics Proc *Prerequisite(s): 371*
OR
ECE 421/523 – Analog Electronics *Prerequisite(s): 322L*
ECE 424 – Digital VLSI Design *Prerequisite(s): 321L, 338*
- **Electromagnetics:**
ECE 460/560 – Intro to Microwave Engineering *PR: 360*
ECE 469/569 – Antennas for Wireless Com Sys *PR: 360*
ECE 495 – Computational Methods for Electromagnetics
ECE 495 – Plasma Physics I
- **Digital Systems:**
ECE 338 – Intermediate Logic Design *PR 238L*
ECE 438 – Design of Computers *PR: 338, 344L*
OR
ECE 231 – Intermediate Programming and Eng Prob Solving *PR: 131*
ECE 331 – Data Structures and Algorithms *PR: 231, MATH 327*
- **OptoElectronics:**
ECE 471– Materials and Devices II *PR: 360, 371*
ECE 475 – Intro to Electro-Optics and Opto-Electronics *PR: 371*

ECE Technical Electives

Technical Electives are approved 300-level and above courses developed in consultation with a student's academic advisor. These can be taken from ECE, Computer Science, Math, Physics, or other engineering-related courses. ECE 231 - Intermediate Programming is the only 200-level exception allowed for the EE program only.

Computer Engineering:	6 credits required
Electrical Engineering:	3 credits required