

Ph.D. Qualifying Courses Listed by ECE Group

as of November 2010

Computer Engineering:

- ECE 251 (offered in Fall or Spring) - Advanced Digital System Design (Derby)
- ECE 252 (Fall) - Advanced Computer Architecture I (Board, Kedem, Lebeck, Sorin)
- ECE 255 (Fall) - Probability for Electrical and Computer Engineers (Trivedi)
- ECE 261 (Fall) - CMOS VLSI Design Methodologies (Chakrabarty)

Imaging and Information Physics:

- ECE 227 (Fall or Spring) - Quantum Information Science
- ECE 299/287 (Fall or Spring) - Information Theory (Carin)
- ECE 375 (Fall or Spring) - Optical Imaging and Spectroscopy (Brady)
- ECE 376 (Fall) - Lens Design (Brady)

Microsystems

- ECE 211 (Fall) - Quantum Mechanics (Brown, Stiff-Roberts)
- ECE 216 (Fall) - Semiconductor Devices for Integrated Circuits (Massoud)
- ECE 261 (Fall) - CMOS VLSI Design Methodologies (Chakrabarty, Morizio)
- ECE 262 (Spring) - Analog Integrated Circuit Design (Morizio)

Photonics

- ECE 211 (Fall) - Quantum Mechanics (Brown, Stiff-Roberts)
- ECE 226 (Fall) - Optoelectronic Devices (Stiff-Roberts, Jokerst/Brooke)
- ECE 322 (Spring) - Quantum Electronics (Stiff-Roberts, Yoshie)

Sensing and Waves

- ECE 271 (Fall) - Electromagnetic Theory (Carin, Cummer, Joines, Liu)
- ECE 275 (Spring) - Microwave Electronic Circuits (Joines)
- ECE 277 (Spring) - Computational Electromagnetics (Carin, Liu)
- ECE /299287 (Fall or Spring) - Information Theory (Carin)
- ECE 299x (Fall) - Sensing Theory (Carin)
- ECE 375 (Spring) - Optical Imaging and Spectroscopy (Brady)

Signal Processing and Communications

- ECE 281 (Fall) - Random Signals and Noise (Collins, Nolte, Krolik)
- ECE 282 (Fall or Spring) - Digital Signal Processing (Collins, Krolik, Nolte, Willett)
- ECE 285 (Spring) - Signal Detection and Extraction Theory (Nolte).
- ECE 299/287 (Fall or Spring) - Information Theory (Carin)