

Guidelines for Course Selection for M.S. Students in the Electrical & Computer Engineering Department

Specialization Area	Required Undergraduate Preparation	Required Courses in Quantitative Methods	Courses for Specialization Area	Suggested Breadth Areas	Courses for Acquiring Breadth in this Area
Communication Systems	EE 458: Analog Communication	EE 602: Stochastic Systems	EE 558: Digital Communication EE 650: Modern Comm Thy EE 652: Prin & Apps of Info Thy EE 653: Coding Theory EE 655: Modem Design	<i>Electromagnetic Sys</i> <i>Digital Signal Processing</i> <i>Computer Networks</i>	EE 558: Digital Communication EE 650: Modern Comm Thy EE 558: Digital Communication EE 652: Prin & Apps of Info Thy
VLSI and Digital Systems	CompE 470	EE 601: Linear System Thy or EE 602: Stochastic Systems	EE 600: ASIC Design EE 600: Mixed Signals CompE 572: VLSI Ckt Design EE 672: VLSI System Design EE 600: Embedded Systems EE 530: Analog Ckt Deisgn	<i>Digital Signal Processing</i> <i>Computer Networks</i> <i>Rehabilitation Electronics</i> <i>Software Engineering</i>	EE 530: Analog Circuit Design EE 600: ASIC Design CompE 572: VLSI Ckt Design EE 672: VLSI System Design EE 530: Analog Circuit Design EE 600: Mixed Signals
Electromagnetic Systems	EE450: Electro-Magnetic Waves	EE 602: Stochastic Systems	EE 641: RF Wireless Systems EE 645: Antenas & Propagation EE 540: Microwave Design EE 634: RF Circuit Design EE 541: Electro-Optics EE 631: RF Electronic Ckts	<i>Computer Networks</i> <i>Power/Control</i> <i>Communication Systems</i>	EE 540: Microwave Devices EE 634: RF Circuit Design EE 540: Microwave Devices EE 645: Antenas & Propagation EE 540: Microwave Devices EE 641: RF Wireless Systems
Computer Networks	CompE 475: Microprocessors and EE 410: Signals and Systems:	EE 601: Linear System Thy or EE 602: Stochastic Systems	CompE 565: Multimedia Comm. EE 660: High Speed Nets EE 662: Wireless Sensor Nets EE 665: Multimedia Networks CompE 560: Computer & Data Networks	<i>Communication Systems</i> <i>Digital Signal Processing</i> <i>Electromagnetic Sys</i> <i>VLSI and Digital Sys</i>	CompE 560: Computer & Data Networks EE 660: High Speed Nets CompE 560: Computer & Data Networks CompE 565: Multimedia Comm.
Digital Signal Processing	EE 410: Signals and Systems	EE 601: Linear System Thy	EE 556: Digital Signal Proc CompE 565: Multimedia Comm. EE 658: Advanced DSP EE 657: Digital Image Proc EE 656: Multirate Signal Proc EE 654: Adaptive Algorithms	<i>Computer Networks</i> <i>Communication Systems</i> <i>VLSI and Digital Sys</i>	EE 556: Digital Sig Processing EE 658: Advanced DSP EE 556: Digital Sig Processing EE 657: Digital Image Proc
Power & Control	EE 480: Power Systems EE 420: Feedback Control Sys		<i>No courses available at this time</i>		EE 581: Power Sys Dynamics EE 601: Linear System Thy EE 601: Linear System Thy EE 625: Linear Optimal Control EE 581: Power Sys Dynamics EE 522: Digital Control
Software Engineering	CompE 460		<i>No courses available at this time</i>		CompE 561: Database & Web Programming CompE 571: Real-Time Operating Systems CompE 679: Real-Time Software Engr
Rehabilitation Electronics	EE430: Electronic Circuits		<i>No courses available at this time</i>		EE 502: Elec Dev for Rehab EE 503: Biomed Instrumentation EE 530: Analog Ckt Design

Instructions

This set of guidelines provides a roadmap for students in either Plan A and Plan B; before meeting with the ECE Department Graduate Advisor, a classified student should prepare a Program of Study using these guidelines in selecting the courses to be declared for the degree program. The Program of Study, which must be submitted to the ECE Department Office by the end of the first semester or before completing nine units of graduate work, should follow the guidelines given below:

General Comments

- Quantitative course must be taken in the first year of program
- At most four (4) 500-level courses are accepted for graduate program
- Other courses (including special topics courses) may be offered occasionally which may also be taken for credit under the area of specialization, subject to the approval of the Graduate Advisor

Plan A Students: Total of 30 units

- (a) Choose at least four (4) courses in the area of specialization: (12 units)
- (b) Choose one (1) course in each of two breadth areas: (6 units)
- (c) Take required quantitative course: (3 units)
- (d) Register for six units of EE 797 (research) and three units of EE 799A (thesis): (9 units)

Plan B Students: Total of 30 units

- (a) Choose at least five (5) courses in area of specialization: (15 units)
- (b) Choose two (2) courses in each of two breadth areas (12 units)
- (c) Take required quantitative course (3 units)