

MSEE AREAS OF INSTRUCTION AND RESEARCH

Illustrative of the areas from which students select courses that will prepare them for their area of special interest are the following blocks of Engineering courses for graduate students. Unit values are indicated in parenthesis.

MSEE REQUIREMENT COURSES	
EE 4630 - Machine Learning Principles and Application (3) <i>Prereq: EE 3020, EE 3040</i>	EE 5020 - Electrical and Computer Engineering Computation (3) <i>Prereq: EE 3450</i>
COMMUNICATION SYSTEMS	BIOMEDICAL ENGINEERING
EE 4200 Digital Communication Systems (3) <i>prereq: EE 3200, EE 3040</i>	EE 4200 Digital Communication Systems (3) <i>prereq: EE 3200, EE 3040</i>
EE 4220 Digital Signal Processing (3) <i>prereq: EE 3200</i>	EE 4220 Digital Signal Processing (3) <i>prereq: EE 3200</i>
EE 4230 Antennas (3) <i>coreq: EE 3050</i>	EE 4600 Control Systems II (3) <i>prereq: EE 3600</i>
EE 4400 Data Communications & Networking (3) <i>prereq: EE 3200</i>	EE 4710 Analog Integrated Circuits (3) <i>prereq: EE 3710</i>
EE 5200 Advanced Digital Communications I (3) <i>prereq: EE 3040, EE 4200</i>	EE 4720 CMOS VLSI Design (3) <i>prereq: EE 3720</i>
EE 5210 Advanced Digital Communications II (3) <i>prereq: EE 5200</i>	EE 4810 Biomedical Devices (3) <i>prereq: EE 2040</i>
EE 5220 Principles of Signal Compression (3) <i>prereq: EE 3040, EE 4200</i>	EE 4820 Biomedical Signal Processing (3) <i>prereq: EE 3020</i>
EE 5230 Wireless Communications (3) <i>prereq: EE 5200, coreq: EE 5210</i>	EE 5130 System Analysis and Design (3) <i>prereq: EE 4130</i>
	EE 5200 Advanced Digital Communications I (3) <i>prereq: EE 3040, EE 4200</i>
	EE 5220 Principles of Signal Compression (3) <i>prereq: EE 3040, EE 4200</i>
	EE 5610 Stochastic Systems and Estimation (3) <i>prereq: EE 3040, EE 3600</i>
	EE 5630 Optimal Control Theory (3) <i>prereq: EE 4620</i>
	EE 5830 Neural Networks, Learning, and Computation (3) <i>prereq: EE 3040</i>
COMPUTER ENGINEERING	POWER SYSTEMS
EE 4220 Digital Signal Processing (3) <i>prereq: EE 3200</i>	EE 4300 Intro to Power Systems Engineering (3) <i>prereq: EE 3300</i>
EE 4400 Data Communications & Networking (3) <i>prereq: EE 3200</i>	EE 4310 Power System Analysis (3) <i>prereq: EE 4300</i>
EE 4440 Computer Organization (3) <i>prereq: EE 3450</i>	EE 4320 Electric Power Distribution (3) <i>coreq: EE 4300</i>
EE 4450 Embedded Architectures (3) <i>prereq: EE 3450</i>	EE 4330 Power Electronics (3) <i>prereq: EE 3700</i>
EE 4480 Advanced Digital Design (3) <i>coreq: EE 4440</i>	EE 5320 Vehicle Electrification (3) <i>prereq: EE 3300, EE 3700</i>
EE 5400 Advanced Computer Networks (3) <i>prereq: EE 4400</i>	EE 5340 Power System Stability (3) <i>prereq: EE 4310</i>
EE 5440 Computer System Architecture (3) <i>prereq: EE 4440</i>	EE 5350 Power System Protection (3) <i>prereq: EE 4310</i>
EE 5450 Advanced Topics in Embedded Systems (3) <i>prereq: EE 3450</i>	EE 5360 Renewable Energy (3) <i>prereq: EE 4310</i>
EE 5830 Neural Networks, Learning, and Computation (3) <i>prereq: EE 3040</i>	
CONTROL SYSTEMS	ADDITIONAL COURSES
EE 4600 Applied Control Systems & Simulation (3) <i>prereq: EE 3600</i>	EE 4130 Systems Engineering (3) <i>prereq: EE 3600</i>
EE 4610 Digital Control Systems (3) <i>prereq: EE 3600</i>	EE 5130 System Analysis and Design (3) <i>prereq: EE 4130</i>
EE 4620 Modern Control Systems (3) <i>prereq: EE 3020</i>	EE 5150 Systems Performance Analysis (3) <i>prereq: EE 4130</i>
EE 5600 Linear Systems Analysis (3) <i>prereq: EE 4620</i>	EE 5160 Systems Architecture (3) <i>prereq: EE 4130</i>
EE 5610 Stochastic Systems and Estimation (3) <i>prereq: EE 3040, EE 3600</i>	EE 4540 Special Topics in EE (1-3) <i>prereq: graduate standing</i>
EE 5630 Optimal Control Theory (3) <i>prereq: EE 4620</i>	EE 4990 Undergraduate Directed Study (1-3) <i>prereq: Dept permit</i>
	EE 5540 Special Topics in EE (3) <i>prereq: graduate standing</i>
	EE 5960 Comprehensive Exam (-0-) <i>prereq: Dept permit</i>
	EE 5970 Graduate Research (1-3) <i>prereq: Dept permit</i>
	EE 5980 Graduate Directed Study (1-3) <i>prereq: Dept permit</i>
	EE 5990 Thesis (3) <i>prereq: Dept permit</i>