

Circuits		
Course Prefix/#	Course Title	Graduate Prerequisite(s)
EECT 6378	Power Management Circuits	EECT 6326
EECT 6379	Energy Harvesting, Storage, and Powering for Microsystems	
EECT 7325	Advanced VLSI Design	
EECT 7326	Advanced Analog Integrated Circuit Design	EECT 6326
EECT 7327	Data Converters	EECT 6325 & EECT 6326
EECT 7V88	Special Topics in Circuits and Systems	
EEDG 6303	Testing and Testable Design	
EEDG 6306	Application Specific Integrated Circuits	
EEMF 6320	Fundamentals of Semiconductor Devices	Co-req: EEMF 6319
EEMF 6321	Active Semiconductor Devices	EEMF 6320
EERF 6330	RF Integrated Circuit Design	
EERF 6351	Computational Electromagnetics	
EERF 6355	RF and Microwave Amplifier Design	EERF 6311
EERF 6392	Millimeter Wave Integrated Circuit Design	EECT 6325 & EERF 6311
EERF 6393	Microwave Power Amplifiers	Pre-req: EERF 6311/Co-req: EERF 6355
EERF 6394	Antenna Engineering and Wave Propagation	EAGR 6316
EERF 6395	RF and Microwave Systems Engineering	
EERF 6396	Microwave Design and Measurement	
EERF 7330	Advanced RF Integrated Circuit Design	EERF 6330
EERF 7V89	Special Topics in RF and Microwave	
Computing Systems		
Course Prefix/#	Course Title	Graduate Prerequisite(s)
EECT 6325	VLSI Design	
EEDG 6303	Testing and Testable Design	
EEDG 6305	Computer Arithmetic	
EEDG 6307	Fault Tolerant Digital Systems	EEDG 6301
EEDG 6308	Real Time Systems	CS 5348
EEDG 6370	Design and Analysis of Reconfigurable Systems	Pre-req: CS 5343/ Co-req: EECT 6325
EEDG 6375	Design Automation of VLSI Systems	EECT 6325
EEDG 7304	Advanced Computer Architecture	CS 5348 & EEDG 6304
EEDG 7328	Physical Design of High Speed Circuits	EECT 6325
EEDG 7V81	Special Topics in Digital Systems	
EESC 6360	Digital Signal Processing I	
Devices		
Course Prefix/#	Course Title	Graduate Prerequisite(s)
EEMF 6320	Fundamental of Semiconductor Devices	Co-req: EEMF 6319
EEMF 6321	Active Semiconductor Devices	Recommended Co-req: EEMF 6320
EEMF 6322	Semiconductor Processing Technology	
EEMF 6323	Circuit Modeling of Solid State Devices	EEMF 6320 & EEMF 6321
EEMF 6324	Electronic, Optical and Magnetic Materials	
EEMF 6327	Semiconductor Device Characterization	EEMF 6320
EEMF 6348	Lithography and Nanofabrication	
EEMF 6372	Semiconductor Process Integration	

EEMF 6382	Introduction to MEMS	
EEMF 6383	Plasma Science	EEGR 6316
EEMF 7320	Advanced Semiconductor Device Theory	EEMF 6320 & EEMF 6321
EEMF 7V82	Special Topics in Microelectronics	
EEOP 6313	Semiconductor Opto-Electronic Devices	
EEOP 7V83	Special Topics in Optics and Fields	
EERF 6351	Computational Electromagnetics	EE 4301
EERF 6355	RF and Microwave Amplifier Design	EERF 6311
EERF 6394	Antenna Engineering and Wave Propagation	EEGR 6316
EERF 6395	RF and Microwave Systems Engineering	EE 4368
EERF 6396	Microwave Design and Measurement	EE 4368
Power Electronics and Energy		
Course Prefix/#	Course Title	Graduate Prerequisite(s)
EECT 6378	Power Management Circuits	EECT 6326
EECT 6379	Energy Harvesting, Storage, and Powering for Microsystems	
EEPE 6358	Electrification of Transportation	EEPE 6354
EEPE 6359	Renewable Energy Systems and Distributed Power Generation Systems	EEPE 6354
EEPE 7354	Advanced Power Converters	
EEPE 7356	Computer Aided Design of Electric Machines	EEPE 6356
EEPE 7V91	Special Topics in Power Electronics	EEPE 6356
Signals and Systems		
Course Prefix/#	Course Title	Graduate Prerequisite(s)
EECS 6302	Dynamics of Complex Networks and Systems	
EECS 6323	Robust Control Systems	EECS 6331
EECS 6324	Robot Control	EECS 6331
EECS 6332	Advanced Control	EECS 6331
EECS 6336	Nonlinear Systems	EECS 6331
EECS 7V90	Special Topics in Control Systems	
EEGR 6381	Computational Methods in Engineering	
EESC 6340	Introduction to Telecommunications Networks	EESC 6349
EESC 6341	Information Theory	
EESC 6343	Detection and Estimation Theory	EESC 6349
EESC 6344	Coding Theory	
EESC 6350	Signal Theory	EESC 6349
EESC 6353	Broadband Digital Communication	EESC 6349
EESC 6361	Digital Signal Processing II	EESC 6360
EESC 6362	Introduction to Speech Processing	EESC 6360
EESC 6363	Digital Image Processing	
EESC 6364	Pattern Recognition	EESC 6349
EESC 6365	Adaptive Signal Processing	EESC 6349 & EESC 6360
EESC 6366	Speech and Speaker Recognition	
EESC 6367	Applied Digital Signal Processing	
EESC 6390	Introduction to Wireless Communication Systems	
EESC 7V85	Special Topics in Signal Processing	

*Area faculty will be able to modify advising lists on as-needed basis