Required and Suggested Technical Electives for Areas of Specialization

Course	Semester	Description	Electrical Engineering					Computer Engineering		
			Bioengineering	Comm. Systems & Signal Processing	Digital Electronics	IC's and Devices	Power Systems	Architecture and Design	Embedded Systems	Multimedia & Networking
AP 773	F, even yrs	Bioinstrumentation Laboratory (1)	Δ							
CIS 450	F,S	Computer Arch and Operations (3)						•	•	
CIS 525	F	Telecomm and Data Comm Systems (3)								•
CIS 551	F	Intro to Computer and Information Security (3)								•
CIS 621	F	R/T Programming Fundamentals (1)							Δ	
CIS 622	F	R/T Operating Systems (1)							Δ	
ECE 441	F,S	Design of Digital Systems (3)			•	•				
ECE 530	F,S	Control Systems Design (3)							•	
ECE 542	F,S	Local Area Networking (3)						•	•	Δ^{D}
ECE 571	S	Intro to Bioengineering	Δ							
ECE 624	F	Power Electronics (3)					•			
ECE 628	F,S	Electronic Instrumentation (3)	•							
ECE 631	S	Microcomputer System Design (3)	•		Δ^{D}				Δ^{D}	
ECE 633	F	Real-Time Embedded Systems (1)	•						Δ	
ECE 636	F,S	Intro to Computer Graphics (3)								•
ECE 641	S	Adv. Digital Design (3)			•	•		Δ^{D}		
ECE 643	F,S	CMPEN Design Lab (3)								
ECE 645	S	Digital Electronics (3)			Δ	•				
ECE 647	F	Digital Filtering (3)	•	•					•	•
ECE 648	F	Multimedia Compression (3)						•	•	Δ
ECE 649	F,S	Computer Design 1 (3)			•					
ECE 660	F	Comm. Systems 1 (3)	•	Δ			•			•
ECE 661	S	Comm. Systems 2 (3)		•						
ECE 662	S	Design of Comm. Circuits (3)	•	Δ^{D1}	•					
ECE 670	S	Engg. Appl. of Machine Intelligence (3)					•	•	•	
ECE 681	F	Wind and Solar Engg. (3)					•			
ECE 684	S	Power Lab (3)					Δ^{D}			
ECE 685	F	Power Systems Design (3)					Δ^{D}			
ECE 686	S	Power Systems Protection (3)					•			
ECE 694	F	Optoelectronics (3)		•		•				
ECE 696	F	Integrated Circuit Design (3)				Δ^{D}				
ECE 715	F	Electroacoustics (3)	•	•						
ECE 722	S	Audio Engineering (3)	•	•						
ECE 724	S	Analog Electronics (3)	•	•		•				
ECE 725	S	IC Devices and Processes (3)				Δ				
ECE 728	Demand	Mixed Signal Measurements (3)	•	•		•				
ECE 730	S	Control Systems Analysis and Design (3)	•				•			
ECE 731	S	Adv. Microcomputer System Design (3)							•	
ECE 733	S	Real-Time Embedded Systems Design (3)	•						•	
ECE 736	S	Discrete-Time and Computer-Control Systems (3)							•	
ECE 746	S, even yrs	Fault Diagnosis in Dig. Systems (3)			•			•	•	•
ECE 747	S	Digital Filtering Lab (3)	•	•				•	•	•
ECE 749	F	Computer Design 2 (3)						Δ	•	•
ECE 760	S	Wireless Communications (3)	•	•						
ECE 764	F	Design of Microwave Circuits (3)		Δ^{D1}						
ECE 765	Demand	Digital Radio Hardware Design (3)		•		•				
ECE 772	F	Theory and Tech of Bioinstrumentation (2)	Δ							
ECE 773	F	Bioinstrumentation Design Lab (1)	Δ^{D}							
ECE 780	F	Power Seminar (1)					Δ			

Δ = Required for specialty • = Recommended for specialty [1] = Choose 1 course D = Denotes design course

Technical electives may aslo be taken from other departments and colleges. See DARS report for complete list.

11/2011