

Digital and Embedded Systems (D)					
Technical Electives	Course Number	Fall	Winter	Spring	Summer
Real-time Embedded Systems	ELEN 121*			x	
Computer Architecture	ELEN 122*		x		
Mechatronics	ELEN 123	x	x		
Advanced Logic Design	ELEN 127	x			
Graduate courses open to seniors					
Embedded Systems	ELEN 501	x			
Real-Time Systems	ELEN 502		x		
Advanced Computer Architecture	ELEN 511	x			
Advanced Computer Architecture II	ELEN 512		x		
Hardware Security and Trust	ELEN 530		x		

+ Every two years

* Required for ECEN

** Required for ELEN

IC Design (I)					
Technical Electives	Course Number	Fall	Winter	Spring	Summer
Analog IC Design	ELEN 116+	will be offered in 2022/2023			
Semiconductor Devices	ELEN 151 (267)		x		
Integrated Circuit Fabrication Technology	ELEN 152 (276)			x	
Digital IC Design	ELEN 153	x	x	x	
Introduction to Nanotechnology	ELEN 156	will be offered in 2022/2023			
Graduate courses open to seniors					
Fundamentals of Semiconductor Physics	ELEN 261	x			
Advanced Analog Integrated Circuits	ELEN 254	x			
DC to DC Power Conversion	ELEN 353		x		

+ Every two years

* Required for ECEN

** Required for ELEN

Power Systems (P)					
Technical Electives	Course Number	Fall	Winter	Spring	Summer
Power Electronics	ELEN 164	x			
Power Systems	ELEN 183/281E		x		
Senior Level					
Power Systems and Control	ELEN 184/231			x	
Graduate courses open to seniors					
Introduction to Wind Energy	ELEN 286	x			
Smart Grid	ELEN 285		x		
Introduction to storage systems	ELEN 287			x	
Introduction to Sustainable Energy	ELEN 280	x	x	x	

+ Every two years

* Required for ECEN

** Required for ELEN

RF and Communications (C)					
Technical Electives	Course Number	Fall	Winter	Spring	Summer
Electromagnetics I	ELEN 104**	x			
Electromagnetics II	ELEN 105		x		
Communications and Networking	ELEN 142*			x	
Microwave Circuit Analysis and Design	ELEN 144 (706)	will be offered in 2022/2023			
Senior Level					
Communication Systems	ELEN 141/241E	x			
Graduate courses open to seniors					
Computational E&M (prereq ELEN 201)	ELEN 202		x		
Information Theory (prereq AMTH 211)	ELEN 244E		x		

+ Every two years

* Required for ECEN

** Required for ELEN

Systems (S)					
Technical Electives	Course Number	Fall	Winter	Spring	Summer
Linear Systems	ELEN 110**			x	
Fundamentals of Computer Aided Circuit Simu	ELEN 118				
Digital Signal Processing	ELEN 133*			x	
Applications of Signal Processing	ELEN 134				
Chaos Theory, Metamathematics and the Limi	ELEN 160	x			
Information Theory and Quantum Computing	ELEN 161		x		
Medical Imaging Systems	ELEN 167				
Senior Level					
Control Systems	ELEN 130	x			
Graduate courses open to seniors					
Introduction to Machine Learning	ELEN 520, 520L	x	x	x	
Deep Learning (prereq ELEN 520)	ELEN 521		x		

+ Every two years

* Required for ECEN

** Required for ELEN