

**Requirements: 2 Track Electives and 2-300+ Approved Electives**

2-Track Electives: Choose 2 courses from one technical area.

2- Approved Electives: Choose any two additional courses from this list. (CPE 212 may also be used)

*Courses offered based on historical data, does not guarantee future availability.*

Course Number	Cr Hrs	Course Title	Prerequisite	Offered: F=Fall S=Spr M=Sum
<b>Communications/Radar</b>				
EE 414	3	Analog & Digital Filter Design	EE 315 and (EE 383 or CPE 381)	S
EE 421	3	Antenna Design & Analysis	EE 308	F
EE 424	3	Intro to Data Communication Networks	(EE 383 or CPE 381) and EE 385	F
EE 425	3	Fundamentals of Radar Systems	EE 382 and EE 385	
EE 426	3	Communication Theory	EE 382 or CPE 381	S
EE 454	3	Optical Fiber Communications	EE 307 and CPE 381	S

Course Number	Cr Hrs	Course Title	Prerequisite	Offered: F=Fall S=Spr M=Sum
<b>Controls and Robotics</b>				
EE 486	3	Introduction to Modern Control Systems	EE 386	F
EE 410	3	ST: Fundamentals of Robotics	Advisor Approval	
EE 410	3	ST: Introduction to Sensors & Actuators	Advisor Approval	
EE 418	3	Nonlinear Dynamics and Chaos	EE 315 and EE 382	

Course Number	Cr Hrs	Course Title	Prerequisite	Offered: F=Fall S=Spr M=Sum
<b>Digital Hardware Design</b>				
CPE 322/324	4	Digital Hardware Design Fundamentals	CPE 221; Pre w/ Con EE 315	S
CPE 427	3	VLSI Design I	EE 202, EE 315; Coreq CPE 427L	F
CPE 431	3	Introduction to Computer Architecture	CPE 322, CPE 323	F

Course Number	Cr Hrs	Course Title	Prerequisite	Offered: F=Fall S=Spr M=Sum
<b>Networks/Cybersecurity</b>				
CPE 348	3	Introduction to Computer Networks	CPE 221	FS
CPE 449	3	Introduction to Cybersecurity Engineering	CPE 348	F

Course Number	Cr Hrs	Course Title	Prerequisite	Offered: F=Fall S=Spr M=Sum
<b>Artificial Intelligence</b>				
CPE 486	3	Machine Learning for EGR Applications	EGR 101, MA 244, EE 385 or ISE 390	F
CPE 487	3	Deep Learning for Engineering Applications	CPE 486	S

Course Number	Cr Hrs	Course Title	Prerequisite	Offered: F=Fall S=Spr M=Sum
<b>Electronics</b>				
EE 414	3	Analog & Digital Filter Design	EE 315 and EE 383	S
EE 416	3	Electronics II	EE 315	SM
EE 417	3	Fundamentals of Photovoltaics	EE 310	S
EE 418	3	Nonlinear Dynamics and Chaos	EE 315 and EE 382	
EE 436	3	Digital Electronics	EE 202 and EE 315	F
EE 451	3	Optoelectronics	EE 307 and EE 315	F

Course Number	Cr Hrs	Course Title	Prerequisite	Offered: F=Fall S=Spr M=Sum
<b>Optics</b>				
EE 451	3	Optoelectronics	EE 307 and EE 315	F
EE 453	3	Laser Systems	EE 307	F
EE 454	3	Optical Fiber Communications	EE 307 and CPE 381	S

Course Number	Cr Hrs	Course Title	Prerequisite	Offered: F=Fall S=Spr M=Sum
<b>Energy and Power Systems</b>				
EE 410	3	ST: Power Systems Insulators	Advisor Approval	
EE 411	3	Electric Power Systems	EE 382 or CPE 381	S
EE 417	3	Fundamentals of Photovoltaics	EE 310	S

Course Number	Cr Hrs	Course Title	Planned term
<b>Selected Electrical Engineering Electives</b>			
		Track 1:	
		Track 2:	
		Elective 1:	
		Elective 2:	

**Notes:**

Highlighted courses have previously been listed as EE 410 Special Topics (ST)

No ET (Engineering Technology) courses may be used to satisfy requirements

