

College of Engineering and Computer Science

Electrical Engineering

Fall 2020

Name _____

SUID _____

pr= prerequisite, co=corequisite

Track: _____

Minor: _____

CREDIT GRADE	FIRST-YEAR		SOPHOMORE		JUNIOR		SENIOR		VAR +/-
	F	S	F	S	F	S	F	S	
MATHEMATICS (19)									
MAT295 Calculus 1	(4)	4							
MAT296 Calculus 2 (pr: MAT 295 min C-)	(4)	4							
MAT397 Calculus 3 (pr: MAT 296 min C-)	(4)		4						
MAT485 Diff Eqn & Matrix Algebra for Engrs (pr: MAT 397)	(3)			3					
CIS321 Probability and Statistics (pr: MAT 295)	(4)				4				
SCIENCES (15)									
CHE106 General Chemistry I	(3)	3							
CHE107 General Chemistry I Lab (co: CHE 106)	(1)	1							
PHY211 General Physics 1 (co: PHY 221, MAT 295)	(3)	3							
PHY221 General Physics Lab 1 (co: PHY 211)	(1)	1							
PHY212 General Physics 2 (pr: PHY 211, 221, co: PHY 222, MAT 296)	(3)		3						
PHY222 General Physics Lab 2 (co: PHY 212)	(1)		1						
Science/Math Elective _____	(3)							3	
WRITING SKILLS (9)									
WRT105 Studio 1: Practices of Academic Writing	(3)	3							
WRT205 Studio 2: Critical Research and Writing (pr: WRT 105)	(3)			3					
WRT307 Adv. Writing Studio: Professional Writing (pr:WRT 205)	(3)					3			
SOC. SCIENCE/HUMANITIES/GEN. ED. (15)									
SSH Elective _____	(3)	3							
SSH Elective _____	(3)		3						
ECS392 Ethical Aspects of ECS	(3)						3		
Arts & Sciences Elective _____	(3)			3					
Arts & Sciences Elective _____	(3)						3		
GENERAL ENGINEERING (3)									
ECS101 Intro. to Engr. & Comp. Sci.	(3)	3							
COMPUTING CORE (9)									
ECS102 Intro. to Computing	(3)	3							
CSE384 Systems and Network Programming	(3)			3					
CIS351 Data Structures	(3)		3						
DIGITAL CORE (7)									
CSE261 Digital Logic Design	(3)			3					
CSE262 Digital System Design and Simulation	(1)			1					
CSE397 FPGA and Microcontroller Design Lab (pr: CSE 261)	(3)				3				
ELECTRICAL ENGINEERING FUNDAMENTALS (10)									
ELE231 Electrical Engr. Fundamentals I (pr: MAT 295)	(3)	3							
ELE251 Fundamentals of Linear Systems	(3)		3						
ELE292 Linear Sytems Laboratory (co: ELE 251)	(1)		1						
ELE351 System and Signal Analysis (pr: ELE 251, MAT 296)	(3)				3				
ELECTRICAL ENGINEERING BREADTH (16)									
ELE314 Intro to Power Engineering (pr: ELE 231)	(3)				3				
ELE324 Electromagnetics (pr: MAT 397, PHY 212)	(4)				4				
ELE333 Analog Circuits (pr: ELE 231)	(3)					3			
ELE354 Communications Systems (pr:ELE351, CIS321)	(3)					3			
ELE392 DSP and Controls Lab (pr: ELE 251)	(3)					3			
ELECTRICAL ENGINEERING DESIGN (6)									
ELE491 Senior Design Project 1	(3)						3		
ELE492 Senior Design Project 2 (pr: ELE 491)	(3)							3	
TECHNICAL ELECTIVES (18)									
Tech Elective _____	(3)					3			
Tech Elective _____	(3)					3			
Tech Elective _____	(3)						3		
Tech Elective _____	(3)						3		
Tech Elective _____	(3)							3	
Tech Elective _____	(3)							3	
FREE ELECTIVES (3)									
Free Elective _____	(3)							3	
TOTAL CREDITS	130	17	14	18	16	17	18	15	15

Electrical Engineering Curriculum Notes 2020-2021

Technical Electives

Students are required to 18 credits of upper division electives with the ELE, CSE, or CIS prefix. A minimum of 9 credits from courses with a prefix of ELE and a minimum of 6 credit hours must be 400 level or higher.

Math/Science Elective

A minimum number of credits in math and natural science are required for engineering students. The 3-credit math/science elective allows electrical engineering students to satisfy this requirement with a math or natural science course that aligns with their interests. A list of math and natural science courses can be found on the College of Arts and Sciences section of the Undergraduate Catalog.

Social Sciences and Humanities Electives

This 6-credit requirement for SSH electives may be fulfilled by any combination of courses whose contents are in the social science and humanities area. A glossary of course designations with such contents can be found in the Humanities Division and the Social Sciences Division of the College of Arts and Sciences with the exception of the following Anthropology - Physical courses: ANT 131, 331, 431, 432, and 433. These glossaries are given in The College of Arts and Sciences section of the Undergraduate Catalog.

Arts and Science Electives

The purpose of this 6-credit requirement of arts and science elective courses is to provide students with a broad liberal arts educational experience in a diversity of subjects. In general courses from the college of arts and sciences will satisfy this requirement with the exception of courses with pass/fail grades, and 100-level courses in CHE, MAT, and PHY.

Free Elective

This free elective further allows students to take any 3 credits from across the wide range of courses offered at the university. Courses graded as pass/fail cannot be counted.