ELECTRICAL ENGINEERING MINOR

Overview

The Electrical Engineering minor will provide a foundation in the core principles of electrical engineering that can supplement engineering, science, and non-STEM majors at Tulane. Electrical engineering is a discipline that underlies the vast majority of our modern technological world, and students with the EE minor will be able to apply these skills in a broad range of fields, industries, and careers.

Requirements

Course ID	Title	Credits
Prerequisites		
MATH 1210 & MATH 1220	Calculus I and Calculus II	8
PHYS 1310 & PHYS 1320	General Physics I and General Physics II	8
BMEN 2020	Computing Concepts & Applic (or another programming course with advisor approval)	4
or ENGP 2020	Computing Concepts and Applications	
or CMPS 1100	Foundations of Programming	
or CMPS 1500	Intro to Computer Science I	

Course ID	Title	Credits
Required Courses		**10**
ENGP 2010 & ENGP 2011	Electric Circuits and Electric Circuits Lab	
BMEN 3730	Biomedical Signals and Systems	
or ENGP 3730	Signals and Systems	
ENGP 3140	Digital Logic Systems	
Electives (Choose 3)		**9**
PHYS 2350	Modern Physics I	
PHYS 3630	Electromagnetic Theory	
PHYS 3650	Optics	
BMEN 2730	Biomedical Electronics	
ENGP 3560	Photonic Materials & Devices	
ENGP 3570	Semiconductor Devices	
ENGP 3620	MicroFab and Nanotech	
ENGP 3230	Quantum information Sci & Eng	
or PHYS 3230	Quantum Information Science & Engineering	
PHYS 3310	Quantum Optics	
ENGP 3700	Electrnc Prop of Materls	
or PHYS 3700	Electronic Properties of Materials	
PHYS 4470	Intro Quantum Mechanics	
BMEN 6170	Biomedical Optics	
CENG 6140	Electrochemistry	
or CENG 4140	Electrochemistry	
ENGP 3160	Probabilistic Systems and Signal Processing	
ENGP 3130	Introduction to Power Systems	
ENGP 3380	Materials for Energy	
ENGP 3180	Introduction to Feedback Control and Control Theory	
or CENG 4500	Chemical Process Control	
ENGP 2310	Product and Experimental Design	
or BMEN 2310	Product & Experimental Design	
CMPS 2300	Intro to Comp Sys & Networking	

CMPS 3240	Intro to Machine Learning
CMPS 3250	Theory of Computation
CMPS 3280	Information Theory
CMPS 4750	Computer Networks
CMPS 3510	Computer Organization
CMPS 3160	Introduction to Data Science
Total Credit Hours	**19**

At least three courses (9 credits) counting toward the minor must not overlap with a student's major.

Requirements text