

# ELECTRICAL ENGINEERING CERTIFICATE

Engineering Physics majors have the opportunity to focus their elective course work in a specific concentration area and earn a certificate if they are interested in a more focused field of study. Successful completion of an ENGP certificate requires a student to choose any four out of the seven total electives (i.e., out of the four engineering electives, one contemporary physics elective, one classical physics elective, and one broader technical elective) from within a particular concentration area.

Engineering Physics Major (<https://catalog.tulane.edu/science-engineering/physics-engineering/engineering-physics-major/>)

The allowable electives for the Electrical Engineering Certificate are listed in the Requirements.

## Requirements

Course ID	Title	Credits
<b>Four Electives</b>		
Select four courses from the list as explained in the description above:		12
ENGP 3560	Photonic Materials & Devices <sup>4</sup>	
ENGP 3570	Semiconductor Devices <sup>4</sup>	3
ENGP 3620	MicroFab and Nanotech <sup>4</sup>	
PHYS 3230	Quantum Information Science & Engineering <sup>3</sup>	
PHYS 3310	Quantum Optics <sup>3</sup>	
PHYS 3630	Electromagnetic Theory <sup>2</sup>	
ENGP 3700	Electrnc Prop of Materls <sup>3</sup>	
PHYS 4470	Intro Quantum Mechanics <sup>3</sup>	
PHYS 4650	Optics <sup>2</sup>	
MUSC 4400	Music & Dsp <sup>1</sup>	
MUSC 4410	Music Performance System <sup>1</sup>	
BMEN 2730	Biomedical Electronics <sup>4</sup>	
BMEN 3730	Biomedical Signals and Systems <sup>4</sup>	
BMEN 6170	Biomedical Optics <sup>4</sup>	
CENG 4500	Chemical Process Control <sup>4</sup>	3
CENG 4780	Special Topics (Electrochemistry) <sup>4</sup>	
ARCH 2213	Building, Climate, Comfort <sup>1</sup>	4
ARCH 2223	Building, Climate, Comfort Lab <sup>1</sup>	0
<b>Total Credit Hours</b>		<b>22</b>

<sup>1</sup> Satisfies a Broader Technical elective.

<sup>2</sup> Satisfies a Classical Physics elective.

<sup>3</sup> Satisfies a Contemporary Physics elective.

<sup>4</sup> Satisfies an Engineering elective.