MATERIALS 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 Materials Engineering Certificate are listed in the Requirements.

Requirements

Course ID	Title	Credits
Four Electives		
Select four courses from the list as explained in the description above:		12
ENGP 3290	Computational Materials Scienc [4]	
ENGP 3350	Kinetics of Material Systems [4]	
ENGP 3360	Structure of Materials [4]	
ENGP 3370	Processing of Biomaterials [4]	
ENGP 3380	Materials for Energy [4]	
ENGP 3390	Synthesis of Nanomaterials [4]	3
ENGP 3560	Photonic Materials & Devices [4]	
ENGP 3620	MicroFab and Nanotech [4]	
ENGP 3700	Electrnc Prop of Materls [3]	
ENGP 3720	Mechanic Behavior of Materials	
ENGP 3760	Thermodynamics of Materials	
CENG 2110	Matl & Energy Balances [4]	
BMEN 3400	Biomaterials & Tissue Engr [4]	
PHYS 3210	Molec Biophysics & Polymer Phy [3]	
CENG 2780	Special Topics (Biomimetics: An Approach to Problem Solving) [4]	
CENG 3110	Thermodynamics II [4]	
CENG 4890	Polymer Engr & Science [4]	
Total Credit Hours		15

1 satisfies a Broader Technical elective

2 satisfies a Classical Physics elective

3 satisfies a Contemporary Physics elective

4 satisfies an Engineering elective