

BA in Physics - Engineering Physics Option

Program Requirements

A student majoring in physics may select an engineering physics option. Select four courses approved by the physics department from a given engineering department

Course	Title	Hours
Select one of the following combinations		10
Combination A		
PHYS 213 & PHYS 214	General College Physics I and General College Physics II	
Combination B		
PHYS 313 & PHYS 315	Physics for Scientists I and University Physics Lab I	
PHYS 314 & PHYS 316	Physics for Scientists II and University Physics Lab II	
PHYS 551	Topics in Modern Physics	3
PHYS 621	Analytical Mechanics	3
PHYS 631	Electricity and Magnetism	3
PHYS 641	Thermophysics	3
PHYS 651	Quantum Mechanics I	3
MATH 555	Differential Equations I	3
Select one of the following MATH courses		3
MATH 511	Linear Algebra	
MATH 545	Integration Techniques and Applications	
MATH 547	Advanced Calculus I	
MATH 757	Partial Differential Equations for Engineers	
Select 5 credit hours in chemistry		5
Select 2 additional credit hours from the following		2
PHYS 516	Advanced Physics Laboratory	
PHYS 517	Electronics Laboratory	
PHYS 616	Computational Physics Laboratory	
Select four courses approved by the physics department from a given engineering department		
Total Credit Hours		38

With departmental approval, the engineering courses could substitute for required courses covering similar topics.

Applied Learning

Students in the BA in physics are required to complete an applied learning or research experience to graduate from the program. The requirement can be met in several ways. Students can take PHYS 516, PHYS 481 or engage in undergraduate research PHYS 600/PHYS 601.