

BS in Physics

Program Requirements

A minimum total of 120 credit hours is required for the BS in physics. In addition to meeting the requirements of the WSU General Education Program (<http://catalog.wichita.edu/undergraduate/academic-information/general-education-program/>) and the requirements of Fairmount College of Liberal Arts and Sciences, students must meet the following requirements:

Course	Title	Hours
General Education		
Select courses to meet General Education requirements ¹		34-35
College Requirements		
Select courses to complete all LAS Competency Areas ¹		24
Major Requirements		
PHYS 313 & PHYS 315	Physics for Scientists I and University Physics Lab I ²	5
PHYS 314 & PHYS 316	Physics for Scientists II and University Physics Lab II ²	5
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 547	Advanced Calculus I	
MATH 757	Partial Differential Equations for Engineers	
Select 10 credit hours in chemistry		10
Select three semesters from the following		6
PHYS 516	Advanced Physics Laboratory	
PHYS 517	Electronics Laboratory	
PHYS 616	Computational Physics Laboratory	
Select 8 additional upper-division credit hours in physics (excluding PHYS 501A-Z and PHYS 502)		8
Open Electives		
Select enough electives to reach 120 credit hours		6-7
Total Credit Hours		120

¹ Required major courses may also count towards General Education and/or LAS Competencies. Students will need to select additional electives to reach 120 credit hours required for graduation with assistance from an advisor.

² PHYS 313/ PHYS 315 and PHYS 314/ PHYS 316 are preferred, but the PHYS 213/ PHYS 214 sequence may be substituted.

Applied Learning

Students in the BS 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 or engage in undergraduate research PHYS 600/ PHYS 601.