

Bachelor of Science

Physics with a Major in Secondary Physics Education (6-12) (BS)

Degree Program Guide

The Degree Program Guide is a suggested curriculum to complete this degree program in four years. It is just one of several plans that will work and is presented only as broad guidance to students. Each student is strongly encouraged to develop a customized plan in consultation with their academic advisor. Additional information can also be found in Degree Works.

Course	Title	Credit Hours
Freshman		
Fall		
ENGL 110C	English Composition (Grade of C or better required)	3
MATH 211	Calculus I	4
Human Creativity		3
Human Behavior		3
STEM 101	Step 1 – Inquiry Approaches to Teaching STEM	1
Credit Hours		14
Spring		
ENGL 211C or ENGL 231C (Grade of C or better required)		3
MATH 212	Calculus II	4
CS 151 or CS 153	Introduction to Programming with Java or Introduction to Programming with Python	4
Literature		3
STEM 102	Step 2 - Inquiry Based STEM Lesson Design	1
Credit Hours		15
Sophomore		
Fall		
CHEM 121N and CHEM 122N		4
Select one of the following:		4
PHYS 261N	Advanced University Physics I	
PHYS 231N	University Physics I	
PHYS 226N	Honors: University Physics I	
Select one of the following:		3
CS 120G	Introduction to Information Literacy and Research	
CS 121G	Introduction to Information Literacy and Research for Scientists	
OEAS 130G	Research Skills and Information Literacy for the Natural Sciences	
STEM 201	Knowing and Learning in STEM Education	3
Credit Hours		14

Spring		
CHEM 123N and CHEM 124N		4
Select one of the following:		4
PHYS 262N	Advanced University Physics II	
PHYS 232N	University Physics II	
PHYS 227N	Honors: University Physics II	
Interpreting the Past		3
STEM 202	Classroom Interactions in STEM Education	3
Credit Hours		14
Junior		
Fall		
MATH 312 or MATH 285		4
PHYS 303	Intermediate Experimental Physics	3
PHYS 323	Modern Physics	3
PHYS 355	Mathematical Methods of Physics	3
Oral Communication		3
Credit Hours		16
Spring		
MATH 307 or MATH 280		3
PHYS 319	Analytical Mechanics	3
PHYS 103N or PHYS 104N		4
PHYS 468W	Research Methods in Mathematics and Sciences	3
Philosophy and Ethics		3
Credit Hours		16
Senior		
Fall		
PHYS 425	Electromagnetism I	3
PHYS 413	Methods of Experimental Physics	3
Select one of the following:		3
PHYS 499W	Senior Thesis	
PHYS 489W	Senior Thesis I	
PHYS 490W	Senior Thesis II	
PHYS 120* or PHYS 309*		1
Impact of Technology		3
STEM 401	Project Based Instruction in STEM Education	3
Credit Hours		16
Spring		
STEM 485	Apprentice Teaching	9
STEM 402	Perspectives on STEM	3
Elective or Language and Culture course if needed		3
Credit Hours		15
Total Credit Hours		120

Language and Culture I & II may be met in HS and are not included in this 4-year plan. Please see requirement details.

*PHYS 120 is offered fall semester only. PHYS 309 is offered spring semester only.