

Physics Secondary Education

Typical 4-Year Plan

(for students who matriculate prior to Fall 2027
& formally admitted after 7/1/2025)

First Year			
Fall Term		Spring Term	
Course	Units	Course	Units
SEMS 110 Introduction to STEM Teaching I [fall-only; field placement]	1	SEMS 120 Introduction to STEM Teaching II [spring-only; field placement]	1
MATH 273 Calculus I	4	PHYS 241 General Physics I or PHYS 251 Honors General Physics (Core Category 8)	4
CHEM 131 General Chemistry I and CHEM 131L Gen Chem I Lab (Core Category 7)	3 1	MATH 274 Calculus II (Core Category 3)	4
PHYS 185 Intro Honors Seminar	1	TSEM 102 (Core Category 1)	3
ENGL 102 (Core Category 2)	3	Core Curriculum 4	3
SEMS 250 Perspectives on Science and Math (Core Category 5)	3	Core Curriculum 6	3
Total	16	Total	18
Sophomore Year			
Fall Term		Spring Term	
Course	Units	Course	Units
SEMS 230 Knowing and Learning	3	SEMS 240 Classroom Interactions	3
PHYS 242 General Physics II or PHYS 252 Honors General Physics II	4	PHYS 243 General Physics III	4
ASTR 261 Intro to Astrophysics	4	PHYS 307 Introduction to Mathematical Physics	3
PHYS 305 Computers in Physics	4	Core Curriculum 10	3
SEMS 260 Diversity & Difference in STEM Classroom [fall-only] (Core Category 13)	3	BIOL 120 and BIOL 120L	4
Total	18	Total	17

Junior Year			
Fall Term		Spring Term	
Course	Units	Course	Units
SCED 460 Using Reading & Writing in the Secondary Schools	3	SCED 461 Teaching Reading in the Secondary Content Areas	3
PHYS 311 Modern Physics	3	PHYS 354 Electricity and Magnetism	4
PHYS 341 Intermediate Physics Laboratory	3	Core Curriculum 9	3
PHYS 351 Mechanics I	4	Core Curriculum 12	3
Core Curriculum 11	3	Core Curriculum 14	6
Total	16	Total	16

Senior Year			
Fall Term		Spring Term	
Course	Units	Course	Units
SEMS 498 Internship in Mathematics and Science Secondary Education [fall-only; field placement]	6	SCIE 393 Student Teaching in Secondary Education – Science [spring-only; field placement]	12
SEMS 375 Science Pedagogy and Applications [fall-only; field placement]	6	SEMS 430 Seminar in Student Teaching – Science [spring-only; field placement]	1
Total	12	Total	13

The minimum number of units required for graduation is 126.