



Physics B.A. Major with STEM Teaching Program Minor (Physics 5-12th)

This major partially satisfies the criteria for a teaching endorsement in Physics (5-12), qualifying students to teach physics at the middle, junior or high school levels. Students who successfully complete the Physics BA and STEM Teaching Program Minor (an alternative to the Professional Education Program) are eligible to apply for Washington State teacher certification. Teacher certification candidates must receive a C grade or higher in all major and STEM Teaching Program courses, have a GPA of at least 3.0 for either the last 45 graded quarter credits or overall CWU/transfer cumulative, and meet all Washington State teacher certification requirements. See the Physics and STEM Teaching advisors as soon as possible to develop a course of study.

Pre-Requisites

MATH 153/154 completed Major/Minor applications completed Entry to major survey completed

Required Courses	Credits	Plan	Completed
Physics B.A. (Major)			
CHEM 181+181LAB, 182+182LAB General Chemistry I/II	10		
MATH 172, 173 Calculus I/II, MATH 272, 273 Multivariable Calculus I/II	20		
PHYS 181, 182, 183 General Physics with Laboratory I/II/III	15		
MATH 265 Linear Algebra I	4		
PHYS 317, 318 Modern Physics I/II	8		
PHYS 331 Laboratory Practices and Techniques	3		
PHYS 333 Experimental Physics I	3		
PHYS 361 Computational Physics	4		
PHYS 363 Optics	4		
PHYS 489 Senior Assessment	1		
PHYS 495 Undergraduate Research	1-2		
Electives approved by department	9		
Physics major subset:	83		
STEM Teaching Program (Minor)			
<i>Pre-admission courses (must complete before full admission)</i>			
STP 301 Inquiry Approaches to Teaching	OR STP 302A Inquiry Based Teaching & Lesson Design (4)	2	
STP 302 Inquiry Based Lesson Design		2	
<i>Fully Admitted Courses (must be fully admitted to Teacher Certification)</i>			
STP 303 Knowing and Learning (pre-req to all following classes)	4		
STP 304 Classroom Interactions 1	4		
STP 305 Classroom Interactions 2	4		
STP 306 Project-Based Instruction	3		
STP 307 Functions and Modeling	3		
STP 308 Historical Perspectives in STEM Education	3		
STP 309 Research Methods	3		
EFC 480 – Student Teaching (Must meet all Student Teaching Requirements)	16		
Minor subset:	44		
Total Credits:	127		



EXAMPLE 4-Year Plan – Meet with your major and STP advisor(s) to individualize your plan before registering for classes.

	Fall	Winter	Spring
Freshman Year	Math 172 5 Chem 181 + L 5 Phys 181 5 Univ 101 1 Total 16	Math 173 5 Chem 182 + L 5 Phys 182 5 Total 15	Gen Ed 4 ^Eng 101 Math 272 5 Phys 183 5 Total 14
Sophomore Year	Gen Ed 9 Phys 363 4 Math 273 5 Total 18	Math 265 4 Phys 317 4 STP 301 2 Gen Ed 5 ^CS 110 Total 15	Gen Ed 8 ^CS 101 4 Phys 318 4 Phys 361 2 STP 302 15 Total 15
Junior Year	Gen Ed 5 Phys 331 3 *Math 376 4 STP 303 4 Total 14	Phys Elective 4 Phys 333 3 *Math 377 3 STP 304 4 Total 17	Gen Ed 8-12 Phys 495 2 Phys 489 1 STP 307 3 Total 18
Senior Year	Gen Ed 5-7 Phys Elec 4 STP 305 4 STP 308 3 Total 16-8	Gen Ed 10 Phys Elec 4 STP 306 3 STP 309 3 Total 17	EFC 480 16 Total 16

*Optional to finish the math minor
 ^Recommended Basic and Breadth

Student Name: _____ ID#: _____

Email: _____

Signature _____ Date: _____

STEM Teaching Minor Advisor Signature: _____ Date: _____

Major Advisor Signature: _____ Date: _____