

**CALIFORNIA UNIVERSITY  
OF PENNSYLVANIA**

Program: Master of Arts Teaching: Secondary Education Physics

Start: Fall (August) Start

Total Credits: 45 Graduate Credits for Master's degree

<b>Required Content Courses: A grade of C or better is required for certification</b>	<b>Credits</b>
MAT 281 Calculus I	3
MAT 282 Calculus II	3
MAT 381 Calculus III	3
MAT 382 Calculus IV	3
MAT 406 Differential Equations	3
PHY 101 College Physics I	4
PHY 202 College Physics II	4
PHY 203 College Physics III	4
PHY 221 Intermediate Elect & Mag	4
PHY 301 Intermediate Mechanics	4
PHY 331 Modern Physics	3
PHY 495 Physics Seminar	1
CHE 101 General Chemistry	4
Science elective	3
<b>Cal U Required Courses</b>	
<b>Fall</b>	
MSE 641 Orientation to 7-12 Ed.	3
MSE 642 Standards-Based Instruction in 7-12 Ed	3
ESP 610 Sp. Ed. Foundations & Collaboration	3
	9
<b>Spring</b>	
MSE 643 Content Area Literacy in 7-12 Ed.	3
MSE 644 Instructional Strategies in 7-12 Ed.	3
ESP 701 Introduction to Behavior Analysis	3
	9
<b>Summer</b>	
MSE 653 Methods of Science Teaching 7-12*	3
MSE 646 Assessments and Interventions*	3
MSE 645 Technology in 7-12 Education*	3
	9
<b>* 2-day on-campus July residency will be integrated into the summer MSE courses</b>	
<b>Fall</b>	
MSE 647 Classroom Management in 7-12 Ed.	3
ESP 613 Evidence-Based Practices for Sec Inclusion	3
EDU 650 Supporting the English Language Learner	3
	9
<b>Spring (Must earn a Recommendation for Student Teaching)</b>	
MSE 661 Student Teaching & School Law	9
	9
<b>Total Graduate Credits</b>	<b>45</b>

Updated June 25, 2019