

Physics—Major Requirements for BS Degree  
Atomic/Molecular & Optical Physics Emphasis Track  
Effective Fall 2010

University of California, Merced

Anticipated Graduation Date (ex: May 2010) \_\_\_\_\_

Full Name: \_\_\_\_\_ ID: \_\_\_\_\_ Email: \_\_\_\_\_

Phone: \_\_\_\_\_

### University Requirements

Requirement/ Course Dept #	Course Title	Grade	Units Required	Term Completed	Substitute Approved
UC Entry Level Writing (WRI 001 or ELWR)			n/a		
American History/Institutions			n/a		
World at Home I (CORE 001)			1 course		
College Composition (WRI 010)			1 course		

### School Requirements

World at Home II (CORE 100 or replacement)			4		
Calculus I (MATH 021)			4		
Probability & Statistics (MATH 32)			4		
Introduction to Physics I (PHYS 08)			4		
Computer Science Course (CSE 020 )			2		
General Chemistry I (CHEM 02)			4		
Lower Division Arts/Humanities Elective			4		
Lower Division Social Science Elective			4		
UD Science Writing Course (WRI 116 or course approved by NS)			4		
UD Social Science/Humanities Elective			4		

### Lower Division Major/Core Requirements

Calculus II (MATH 22)			4		
Multi-variable Calculus (MATH 23)			4		
Linear Algebra and Differential Equations (MATH 24)			4		
Introductory Physics II (PHYS 09)			4		
Introductory Physics III (PHYS 10)			4		

### Upper Division Major Requirements

Analytic Mechanics Core (PHYS 105)			4		
Electrodynamics Core (PHYS 110)			4		
Statistical Mechanics Core (PHYS 112)			4		
Quantum Mechanics Core (PHYS 137)			4		
Modern Physics Lab (PHYS 160)			4		
Waves Mini-course (PHYS 122)			2		

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One Additional mini-course of student's choice (PHYS 111,124,126)			2		
One "breadth" science or engr elective (upper or lower that is not physics or math)			3		

**AMO Emphasis Track**

Modern Optics (PHYS 148)			4		
Modern Atomic Physics (PHYS 144)			4		
Research (PHYS 195)			4		

**Free Electives to Meet 120 Units**

PHYS 148 and/or PHYS 141 are strongly recommended					

**Notes:** \_\_\_\_\_  
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 \_\_\_\_\_  
 \_\_\_\_\_

**Student Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Advisor Signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

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