

2014-15 MAT Admissions Checklist for Individuals Seeking Eligibility for Certification in Physics Grades 7-12 with a Concentration in Fundamental Physics

Student Name _____

Tentative MAT Year _____

Students interested in becoming a secondary Physics teacher must complete a physics major (I.B). *Please confirm the course work required for the major with your advisor in the department.* In the process of their four years of undergraduate work, students will complete the following courses.

The numbers following the courses indicate the NCATE/NSTA content standards that are addressed in each class.

Courses in Education	√ if Complete	Semester Taken	Grade	College where taken
PSYCH 101: Intro to Psychology <i>(EDUC prereq.)</i>				
EDUC 491: ESL Across the Curriculum 3.2, 3.3				
EDUC 206: Child in America 3.3, 7.1				
EDUC 368: Educational Psychology 2.1				
EDUC 286: Language Acquisition (Sec. & K12) 2.1				
EDUC336: Exceptionality 2.1, 3.1, 3.2				
PSYC 333: Adolescence 2.1				

The following item pertains to admission to the MAT, but is not part of the minor in Ed Studies:

Foreign Language (even for transfer students): <i>1 semester</i>				
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Courses in Major with a Concentration in Fund. Physics	√ if complete	Semester Taken	Grade	College where taken
Core Courses				
<i>Course 1 I.A</i>	PHYS 151: Fundamentals of Physics I <i>(recommended)</i>			
	PHYS 141 General Physics I			
<i>Course 2 I.A</i>	PHYS 152: Fundamentals of Physics II <i>(recommended)</i>			
	PHYS 142 General Physics II			
<i>Course 3 I.A, II. B</i>	PHYS 251: Fundamentals of Physics III			
<i>Course 4 I.C, I.E</i>	PHYS 312: Advanced Physics Laboratory			

Course 5 I.C	PHYS 342: Mechanics				
Course 6 I.C, I.D	PHYS 351: Electricity & Magnetism				
Course 7 I.C, I.B	PHYS 462: Quantum Mechanics				
Course 8 I.C, I.A	PHYS 473: Statistical Mechanics				
Course 9 I.E	PHYS 493. St. Mary's Project				
Course 10 I.E	PHYS 494. St. Mary's Project				
Cognate Courses					
MATH 151: Calculus I					
MATH 152: Calculus II					
MATH 255: Vector Calculus					
MATH 256: Linear Algebra					
Electives: 4 credits required					
PHYS 281: Mathematical Methods of Physics					
PHYS 382: Optics					
PHYS 490: Senior Seminar					
MATH 312: Differential Equations					
CHEM 451: Physical Chemistry					
PHYS 399: Independent Study (as approved by the physics faculty) or PHYS 499					
PHYS 390. Introduction to Astrophysics and Cosmology (recommended for future physics teachers)					
Other courses for future physics teachers – I.D					
Biology	_____				
Chemistry	_____				
Earth/ Space	_____				