

**Ph.D. Physics**

Program	Ph.D. in Physics
Department(s)	Physics and Astronomy
College	Sciences
Program Assessment Coordinator	Michael Pravica    pravica@physics.unlv.edu    895-1723
Five-Year Implementation Dates (2010-2011 to 2015-2016)	2010-2011 to 2015-2016

**1. Student Learning Outcomes for the program.** List the Student Learning Outcomes for the program. *Number for later reference.*

1. understand electromagnetic theory at the graduate level
2. understand quantum theory at the graduate level
3. understand mathematical methods for physics at the graduate level
4. understand statistical physics at the graduate level
5. perform an original research project at the doctoral level
6. communicate scientific topics to a scientific audience
7. possess strong background of knowledge in physics and mathematics
8. solve doctoral-level problems in physics
9. communicate the critical importance of physics in society
10. possess the confidence and ability to be an independent thinker

**2. Curriculum Alignment of Student Learning Outcomes.** Where is the information covered in the courses required in the program?  
At what developmental stage is it covered (Beginning, Middle, or End)?

Student Learning  
Outcomes for the  
Program

Courses in  
program  
(required &  
electives)

1 (use #s from 1 <sup>st</sup> page)	2	3	4	5	6				
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PHYS 711-712	M								
PHYS 721-722		M							
PHYS 700			M						
PHYS 731				M					
PHYS 796						E			
PHYS 799					E	E			

**B = Beginning, M = Middle, E = End**

B = outcome introduced in beginning of development, such as in introductory course

M = outcome covered in middle stages of development

E = outcome fully developed at the end of career, such as in a capstone course