

# PHYSICS, DOCTOR OF PHILOSOPHY (PH.D.)

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The requirements for the Doctor of Philosophy degree in physics are set in general terms to allow the individual student as much freedom as possible to prepare a course of study suited to individual needs. These requirements are: competence in standard topics of graduate-level physics indicated by a satisfactory performance on a qualifying examination—the qualifying exam requirement may be waived by the Department if competence in these topics is demonstrated through performance in courses covering core graduate physics topics; the giving of an oral Preliminary Research Presentation demonstrating the ability to organize and orally present a topic of current research interest in physics; a paper showing the student's ability to organize and present a written scholarly report on contemporary research prior to candidacy; advanced course study consisting of at least three courses at the 600-level or above (of at least 3 credits each) excluding courses covering core graduate physics subjects, seminar courses or independent studies; active participation in at least two hours of seminar, 12 hours of thesis research, and the presentation and defense of an original dissertation.

Course	Title	Credits
Any three graduate-level courses of three credits or more excluding seminars, independent study courses, or courses on core graduate-level physics subjects		
Non-credit Foundations and Frontiers of Physics seminar		
Select two semesters of a physics seminar course		
Pass the qualifying exam or have this exam requirement waived on the basis of performance in course work		
Give a Preliminary Research presentation after passing the qualifying exam		
Submit a scholarly paper		
<b>Dissertation Research Requirements</b>		
PHYS899	Doctoral Dissertation Research	12
<b>Total Credits</b>		<b>12</b>