Physics (PhD)  

Degree Requirements  

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
<th>Counts towards</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Background Coursework</strong></td>
<td></td>
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</tr>
<tr>
<td>PY 781</td>
<td>Quantum Mechanics I</td>
<td></td>
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<tr>
<td></td>
<td><strong>Core Courses</strong></td>
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<tr>
<td></td>
<td>Select four PY 700-level courses</td>
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<tr>
<td></td>
<td>approved in conjunction with the</td>
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<tr>
<td></td>
<td>academic committee ¹</td>
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<td></td>
<td><strong>Qualifying Exams</strong></td>
<td>12</td>
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<tr>
<td>PY 721</td>
<td>Statistical Physics I</td>
<td></td>
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<tr>
<td>PY 782</td>
<td>Quantum Mechanics II</td>
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<tr>
<td>PY 783</td>
<td>Advanced Classical Mechanics I</td>
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<tr>
<td>PY 785</td>
<td>Advanced Electricity and Magnetism I</td>
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<tr>
<td></td>
<td><strong>Elective Courses</strong></td>
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<td>“Elective Courses” may include PY</td>
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<td></td>
<td>500-level and 700-level courses,</td>
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<td></td>
<td>physics-related courses in other</td>
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<td>departments, or courses required for</td>
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<td>a minor</td>
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<td><strong>Additional Courses</strong></td>
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<td><strong>Research Courses</strong></td>
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<td>PY 890</td>
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<td>PY 895</td>
<td>Doctoral Dissertation Research ²</td>
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<td><strong>Dissertation</strong></td>
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<td>PY 899</td>
<td>Doctoral Dissertation Preparation</td>
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<td><strong>Total Hours</strong></td>
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</table>

¹ Excludes PY 781 & PY 785, but may include: PY 721 Statistical Physics I, PY 782 Quantum Mechanics II, PY 783 Advanced Classical Mechanics I.  
² 42 credit hours of research are required for a PhD; however, only 24 are required for students with a MS.

Faculty  

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Jerzy Bernholc  
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John D. Brown  
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Robert Golub  
Kenan Gundogdu  
Hans D. Hallen  
Paul R. Huffman  
Chueng Ryong Ji  
James P. Kneller  
Gail C. McLaughlin  
Lubos Mitas  
Robert Riehn  
Christopher M. Roland  
Maria C. Sagui  
Thomas M. Schaefer  
John E. Thomas  
Mithat Unsal  
Keith R. Weninger  
Albert R. Young  
Matthew Piron Green  
Alexander Kemper  
Divine Philip Kumah  
Shuang Fang Lim  
Richard Leigh Longland  
Hong Wang  
Julio Monti Belmonte  
Rongmon Bordoloi  
Mary Williard Elting  
Sebastian Konig  
Sharonda Leblanc  
Katherine Jean Mack  
Vladimir Skokov
Dali Sun
Jason Russell Bochinski
Kazimierz Borkowski
Abay Dinku
Daniel Jacob Doucette
Brand Irving Fortner
Keith Heyward
Parminder Kaur
John H. Kelley
Hayen Leendert
Kent Leung
Wenchang Lu
Vijaya Mehta
Zodiac T. Webster
Ruth W. Chabay
Kwong T. Chung
James W. Cook Jr.
Stephen R. Cotanch
William Robert Davis
Donald C. Ellison
Raymond Earl Fornes
Christopher Robert Gould
David G. Haase
Karen L. Johnston
Fred Lado Jr.
Jacqueline Krim
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Richard R. Patty
Stephen Reynolds
Phillip J. Stiles

**Associate Professor**
Ian Roederer

**Assistant Professor**
Xingcheng Lin

**Teaching Professor**
Aaron Titus

**Teaching Assistant Professor**
Kasey Wagoner

**Lecturer**
Federico Portillo Chaves