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>PY 781</td>
<td>Quantum Mechanics I</td>
<td></td>
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</table>

Core Courses 12
Select four PY 700-level courses approved in conjunction with the academic committee

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
<th>Counts towards</th>
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<tbody>
<tr>
<td>PY 721</td>
<td>Statistical Physics I</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PY 782</td>
<td>Quantum Mechanics II</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PY 783</td>
<td>Advanced Classical Mechanics I</td>
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<td></td>
</tr>
<tr>
<td>PY 785</td>
<td>Advanced Electricity and Magnetism I</td>
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Qualifying Exams 12

<table>
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<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
<th>Counts towards</th>
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</table>

Elective Courses 12
“Elective Courses” may include PY 500-level and 700-level courses, physics-related courses in other departments, or courses required for a minor

<table>
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<tr>
<th>Code</th>
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<th>Hours</th>
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Additional Courses 36

<table>
<thead>
<tr>
<th>Code</th>
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Research Courses

<table>
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<th>Code</th>
<th>Title</th>
<th>Hours</th>
<th>Counts towards</th>
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<tbody>
<tr>
<td>PY 890</td>
<td>Doctoral Preliminary Examination</td>
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<tr>
<td>PY 895</td>
<td>Doctoral Dissertation Research 2</td>
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</table>

Dissertation

<table>
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<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
<th>Counts towards</th>
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</thead>
<tbody>
<tr>
<td>PY 899</td>
<td>Doctoral Dissertation Preparation</td>
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</table>

Total Hours 72

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

Full Professors
Harald Ade
David E. Aspnes
Robert J. Beichner

Associate Professors
Matthew Piron Green
Alexander Kemper
Divine Philip Kumah
Shuang Fang Lim
Richard Leigh Longland
Hong Wang

Assistant Professors
Julio Monti Belmonte
Rongmon Bordoloi
Mary Williard Elting
Corey Michael Jones
Sebastian Konig
Sharonda Leblanc
Katherine Jean Mack
Vladimir Skokov
Dali Sun

Practice/Research/Teaching Professors
Ilya Arakelyan
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

Emeritus Faculty
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.