College of Mathematics, Natural Sciences and Technology
Department of Physics and Engineering

PROGRAM: IN OPTICS

PHD

<table>
<thead>
<tr>
<th>Year 1 / Semester 1</th>
<th>Year 1 / Semester 2</th>
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<tbody>
<tr>
<td>Course</td>
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<tr>
<td>PHYS-600* Modern Optics</td>
<td>3</td>
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<tr>
<td>PHYS-671* Advanced Electromagnetic Theory I</td>
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<thead>
<tr>
<th>Year 2 / Semester 3</th>
<th>Year 2 / Semester 4</th>
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<tbody>
<tr>
<td>Course</td>
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<tr>
<td>PHYS 605* Principles of Lasers &amp; Optical</td>
<td>3</td>
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<tr>
<td>PHYS 675* Devices Quantum Mechanics I</td>
<td>3</td>
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<td>PHYS 665* Statistical Mechanics</td>
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<tr>
<th>Year 3 / Semester 5</th>
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<tbody>
<tr>
<td>Course</td>
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<tr>
<td>PHYS 691+ Special Topics/Research I</td>
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<td>PHYS 6xx/8xx+ Technical Elective</td>
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<th>Year 4 / Semester 7</th>
<th>Year 4 / Semester 8</th>
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<tr>
<td>Course</td>
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<tr>
<td>PHYS 810+ Current Topics in Optics</td>
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<tr>
<td>PHYS 820* Dissertation Research</td>
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<th>Year 5 / Semester 9</th>
<th>Year 5 / Semester 10</th>
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<tr>
<td>Course</td>
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<tr>
<td>PHYS 820* or PHYS 890* Dissertation Research</td>
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*Denotes a Core Requirement

+Denotes an elective

Total Core Credits = 30 (Required Courses) + 12 (Special Topics) + 18(Dissertation)
Total Elective Credits = 9
Candidacy Requirement: PhD Qualifier
Submission of Candidacy Application and Research Plan to SGSR
Capstone or Culminating Experience: Doctoral Dissertation