DOCTOR OF PHILOSOPHY WITH A MAJOR IN NUCLEAR ENGINEERING

The Nuclear and Radiological Engineering and Medical Physics Program within the Woodruff School offers a Doctor of Philosophy degree. There is both a Nuclear Engineering option and a Medical Physics option for this degree. Students may also complete the Nuclear Enterprise Management specialization. The field of nuclear engineering focuses on topics related to radiation interactions with matter. Applications range from nuclear reactor design to fusion power to nuclear medicine.

The doctoral degree in NE requires 42 semester hours of course work (on a letter-grade basis) beyond the bachelor’s degree or its equivalent. The doctoral degree in NE also allows for a specialization in Nuclear Enterprise Management. Required course work for the Medical Physics option of the NE degree is 52 hours beyond the bachelor’s degree or its equivalent. A total of 36 semester hours must be at the 6000 level or above. Up to six semester hours may be at the 4000 level. Any courses required for the B.S.N.R.E do not meet these respective course requirements. Course grades must be C or higher to satisfy PhD degree requirements. Also, CETL classes do not meet these respective course requirements. A student must maintain a GPA of 3.3 to remain in good standing.

Nuclear Engineering Option

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
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<tbody>
<tr>
<td>Major Area 1</td>
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<tr>
<td>Minor Area 2</td>
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<tr>
<td>Electives</td>
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<tr>
<td>NRE 7757</td>
<td>Teaching Practicum 3</td>
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<tr>
<td>PhD Qualifying Exam 4</td>
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<tr>
<td>PhD Proposal</td>
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<td>Total Credit Hours</td>
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1. Must be in a coherent subject area appropriate to Nuclear Engineering or Radiological Engineering. If you completed a master’s thesis in this area, it may count for nine semester hours toward this requirement.
2. Must be distinctly different from the major area. The minor is intended to provide depth in an area not directly needed for Ph.D. research or related to the principal area of expertise.
3. Teaching practicum does not count towards 42-credit total
4. Those who matriculate with a bachelor’s degree must take the qualifying examination no later than the two-year anniversary of initial enrollment in the Woodruff School graduate program. Those that earn a master’s degree and matriculate as a Ph.D. student must take the Ph.D. Qualifying Examination no later than the one-year anniversary of initial enrollment date in the Woodruff School graduate program.

Medical Physics Option

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<tr>
<td>Major Area 1</td>
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<tr>
<td>Minor Area 2</td>
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<td>9</td>
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</table>

1. Must be in a coherent subject area appropriate to Nuclear Engineering or Radiological Engineering. If you completed a master’s thesis in this area, it may count for nine semester hours toward this requirement.
2. Must be distinctly different from the major area. The minor is intended to provide depth in an area not directly needed for Ph.D. research or related to the principal area of expertise.
3. Any graduate level MGT or ISYE courses.
4. Teaching practicum does not count towards 42-credit total
5. Those who matriculate with a bachelor’s degree must take the qualifying examination no later than the two-year anniversary of initial enrollment in the Woodruff School graduate program. Those that earn a master’s degree and matriculate as a Ph.D. student must take the Ph.D. Qualifying Examination no later than the one-year anniversary of initial enrollment date in the Woodruff School graduate program.

Electives

<table>
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<tr>
<td>NRE 7757</td>
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<tr>
<td>Total Credit Hours</td>
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</table>

1. Must be in a coherent subject area appropriate to Medical Physics. If you completed a master’s thesis in this area, it may count for nine semester hours toward this requirement.
2. Must be distinctly different from the major area. The minor is intended to provide depth in an area not directly needed for Ph.D. research or related to the principal area of expertise.
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4. Those who matriculate with a bachelor’s degree must take the qualifying examination no later than the two-year anniversary of initial enrollment in the Woodruff School graduate program. Those that earn a master’s degree and matriculate as a Ph.D. student must take the Ph.D. Qualifying Examination no later than the one-year anniversary of initial enrollment date in the Woodruff School graduate program.