PHYSICS (M.S.)

https://ceps.unh.edu/physics/program/ms/physics

Description

The Physics M.S. program prepares students for a career in industry, education, or government. The curriculum encompassing core areas of physics as well as elective classes that can be chosen to match their area of interest. The M.S. degree includes a capstone experience, which can be a Master’s Thesis or a Master’s project (for students in the PhD program, the oral thesis proposal satisfies the capstone requirement).

For more details, please consult the physics graduate student handbook.

Applying

Please visit the Graduate School website for detailed instructions about applying to the program.

Requirements

To obtain the degree, students must complete a minimum of 30 credits as outlined below.

M.S. Degree Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 805</td>
<td>Experimental Physics (or equivalent demonstrated experimental proficiency)</td>
<td>4</td>
</tr>
<tr>
<td>PHYS 931</td>
<td>Mathematical Physics</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 939</td>
<td>Classical Mechanics</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 941</td>
<td>Electromagnetic Theory I</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 943</td>
<td>Quantum Mechanics I</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 806</td>
<td>Introduction to Physics Research and Teaching (two semesters)</td>
<td>1</td>
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Select one of the following options:

- Option A: 15 additional credits including a 6 credit Master’s Thesis (PHYS 899)
- Option B: 15 additional credits including a Master’s Project (may account for up to 3 credits)
- Option C: 15 additional credits of coursework and passing the written comprehensive and oral qualifying exams (for students in the PhD program only)

Student Learning Outcomes

- Students will master the theoretical concepts in advanced mechanics, electromagnetism, quantum mechanics and statistical mechanics at the graduate level.
- Students will have an advanced understanding of the mathematical methods, both analytical and computational, required to solve complex physics problems at the graduate level.
- Students will be proficient in experimental physics.
- Students will have a specialized knowledge of their chosen field of research in physics at the level of a Masters degree.
- Students will be well prepared for further graduate study in physics and related disciplines.
- Students will be well prepared for advanced careers in a multitude of fields ranging from scientific and technical to financial.
- Students will be able to present advanced scientific ideas effectively in both written and oral form.