Physics, M.S.

Master of Science

- **Credit Hours:** Students are required to complete a minimum number of 30 graduate-level credit hours in Physics or Astronomy.
- **Grade Point Average:** Students must earn a minimum cumulative and major GPA of 2.75, and a minimum grade of C- in all classes applied to the degree.

**Major Requirements**

<table>
<thead>
<tr>
<th>CORE COURSES</th>
<th>15</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS 611</td>
<td>Introduction to Mathematical Physics</td>
</tr>
<tr>
<td>PHYS 631</td>
<td>Advanced Classical Mechanics 1</td>
</tr>
<tr>
<td>PHYS 633</td>
<td>Electromagnetism 1</td>
</tr>
<tr>
<td>PHYS 651</td>
<td>Quantum Mechanics 1</td>
</tr>
<tr>
<td>PHYS 761</td>
<td>Statistical Mechanics</td>
</tr>
</tbody>
</table>

**COMPLETION OPTION:**

Select one completion option

- **Non-Thesis Option:**
  - 5 courses in PHYS or ASTR at the 600 or 700 level

- **Thesis Option:**
  - 1 course in PHYS or ASTR at the 600 or 700 level
  - PHYS 797 Research

**Total Hours**

- 30

* Except ASTR 697, ASTR 797, PHYS 697, or PHYS 797. Graduate courses from other departments may be substituted with approvals from the graduate studies committee.

**Major Learning Outcomes**

**PHYSICS AND ASTRONOMY**

The central missions of the Graduate Program in Physics are to train the next generation of Physicists and Astronomers for productive careers in the global economy, to teach them how to apply methods and physics principles to understand and explain the world around us and to expand the scientific boundaries of physics and astronomy.

Students earning a M.S. in Physics will be able to:

- Explain physics and astronomy principles as they pertain to their specific field of research.
- Demonstrate the ability to understand and critically evaluate the existing literature published within their field.
- Understand the ethical impact of personal and professional behavior.