Physics, M.S.

COLLEGE OF SCIENCE AND TECHNOLOGY (http://cst.temple.edu)

About the Program
The objective of the M.S. degree program in Physics is to provide advanced training in Physics sufficiently broad to permit the graduate to pursue a range of technical careers. Students choose to pursue the Coursework Track or Thesis Track to complete the M.S. degree.

Time Limit for Degree Completion: 3 years

Campus Location: Main

Full-Time/Part-Time Status: The degree program can be completed on a full- or part-time basis.

Job Prospects: The program is dedicated to producing well-trained scientists prepared for careers as high school science teachers, technical writers, or members of a technical support staff.

Non-Matriculated Student Policy: Non-matriculated students are restricted to taking the following courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>PHYS 5101</td>
<td>Analytical Mechanics I</td>
</tr>
<tr>
<td>PHYS 5301</td>
<td>Electromagnetic Theory</td>
</tr>
<tr>
<td>PHYS 5501</td>
<td>Mathematical Physics I</td>
</tr>
</tbody>
</table>

If the student applies to and is accepted into the program, the courses taken, up to 9 credits, may be applied toward the degree requirements.

Financing Opportunities: Financial aid in the form of Teaching Assistantships, Research Assistantships, and Temple University Fellowships is reserved largely for Ph.D. students. Applicants with a bachelor's degree who wish to earn a doctorate should apply to the Ph.D. program, not the M.S. program. Students in the Ph.D. program normally complete all of the requirements for the M.S. in their first two years and may request the M.S. degree at that time while continuing in the Ph.D. program.

Admission Requirements and Deadlines

Application Deadline:

- Fall: March 1; December 15 international
- Spring: November 1; August 1 international

Applications are reviewed as they are received throughout the year. Late applications may be considered for admission.

APPLY ONLINE to this graduate program.

Letters of Reference:

Number Required: 2

From Whom: Letters of recommendation should be obtained from college/university faculty members or scientists familiar with the applicant's academic and scientific capabilities.

Coursework Required for Admission Consideration: Applicants should have successfully completed coursework typically required for a bachelor's degree in Physics.

Bachelor's Degree in Discipline/Related Discipline: A baccalaureate degree in Physics is typically required. A certified transcript is required from each institution previously attended by the applicant.

Statement of Goals: One to two pages address the applicant's specific interest in Temple's program, research and career goals, and academic and research achievements.

Standardized Test Scores:

GRE: General Test required. Subject Test in Physics strongly recommended, but not required.

For applicants whose native language is not English, the TOEFL, IELTS, or PTE Academic exam is required:

TOEFL: 79 iBT or 550 PBT minimum

IELTS: 6.5 minimum
PTE Academic: 53 minimum

Transfer Credit: Graduate credits from an accredited institution may be transferred into the program. The credits must be equivalent to coursework offered at Temple, and the grade must be a "B" or better in order to transfer. The Graduate Program Committee must approve all requests for transfer credit. The maximum number of credits a student may transfer is 6.

Program Requirements

General Program Requirements:
Number of Credits Required Beyond the Baccalaureate: 30

Required Courses:

<table>
<thead>
<tr>
<th>Course/Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>PHYS 5101 Analytical Mechanics I</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 5301 Electromagnetic Theory</td>
<td>3</td>
</tr>
<tr>
<td>&amp; PHYS 5302 and Electromagnetic Theory</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 5501 Mathematical Physics I</td>
<td>3</td>
</tr>
<tr>
<td>&amp; PHYS 5502 and Mathematical Physics II</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 5701 Quantum Mechanics I</td>
<td>3</td>
</tr>
<tr>
<td>&amp; PHYS 5702 and Quantum Mechanics II</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 8102 Statistical Mechanics</td>
<td>3</td>
</tr>
</tbody>
</table>

Additional Coursework: 6

Total Credit Hours: 30

1. The balance of coursework is identified in consultation with the graduate advisor and subject to the approval of the Graduate Program Committee.

2. For the Coursework Track, no more than 3 credits may be taken in these independent study courses: PHYS 8004 Problems in Experimental Physics; PHYS 8005 Problems in Theoretical Physics; or PHYS 9998 Pre-Dissertation Research.

3. For the Thesis Track, coursework including 3 credits of PHYS 9996 Master's Thesis and an additional 3 credits of PHYS 8004 Problems in Experimental Physics, PHYS 8005 Problems in Theoretical Physics, or PHYS 9996 Master's Thesis must be taken.

Culminating Events:
Comprehensive Examination:
The M.S. comprehensive examination is required for students in the Coursework Track, but not for students in the Thesis Track. The exam, which tests the student's mastery of undergraduate and beginning graduate physics, consists of a three-part written exam and an oral exam. General subject areas covered by the examination include classical electromagnetic theory, classical mechanics, mathematical physics, modern physics, quantum mechanics, statistical mechanics, and thermodynamics.

M.S. students in the Coursework Track are required to take the comprehensive examination by the end of their second year of full-time graduate study. The exam is offered twice a year. In the event of failure, the exam may be retaken once. If the student fails a second time, s/he is dropped from the graduate program.

Thesis:
A master's thesis is required for students in the Thesis Track, but not for students in the Coursework Track. The thesis is based on the student's research and approved in accordance with the policies of the Department of Physics and the Graduate School.

Contacts

Department Web Address:
https://phys.cst.temple.edu

Department Information:
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