

Physics MS

COLLEGE OF SCIENCE AND TECHNOLOGY

Learn more about the Master of Science in Physics.

About the Program

The objective of the MS 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 MS 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:

Code	Title	Credit Hours
PHYS 5101	Analytical Mechanics	
PHYS 5301	Electromagnetic Theory	
PHYS 5501	Mathematical Physics	

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 PhD students. Applicants with a bachelor's degree who wish to earn a doctorate should apply to the PhD program, not the MS program. Students in the PhD program normally complete all of the requirements for the MS in their first two years and may request the MS degree at that time while continuing in the PhD program.

Admission Requirements and Deadlines

Application Deadline:

Fall Priority Deadline: March 1; December 15 international

Spring Priority Deadline: October 30; August 15 international

Applications submitted after the priority deadline will be considered for admission on a rolling basis.

APPLY ONLINE to this graduate program.

Letters of Reference:

Number Required: 3

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: In one to two pages, address your 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.

Applicants who earned their baccalaureate degree from an institution where the language of instruction was other than English, with the exception of those who subsequently earned a master's degree at a U.S. institution, must report scores for a standardized test of English that meet these minimums:

- TOEFL iBT: 79
- IELTS Academic: 6.5
- PTE Academic: 53
- Duolingo: 110

Resume: Current resume required.

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:

Thesis Track

Code	Title	Credit Hours
Core Courses		
PHYS 5101	Analytical Mechanics	3
PHYS 5301	Electromagnetic Theory	3
PHYS 5501	Mathematical Physics	3
PHYS 5701	Quantum Mechanics I	3
PHYS 5702	Quantum Mechanics II	3
PHYS 8102	Statistical Mechanics	3
PHYS 8702	Solid State Physics	3
PHYS 8703	Nuclear and Elementary Particle Physics	3
Research Courses		
PHYS 9996	Master's Thesis Research	3
Select 3 credits of additional coursework from the following:		3
PHYS 8004	Problems in Experimental Physics	
PHYS 8005	Problems in Theoretical Physics	
PHYS 9996	Master's Thesis Research	
Total Credit Hours		30

Coursework Track

Code	Title	Credit Hours
Core Courses		
PHYS 5101	Analytical Mechanics	3
PHYS 5301	Electromagnetic Theory	3
PHYS 5501	Mathematical Physics	3
PHYS 5701	Quantum Mechanics I	3
PHYS 5702	Quantum Mechanics II	3
PHYS 8102	Statistical Mechanics	3
PHYS 8702	Solid State Physics	3
PHYS 8703	Nuclear and Elementary Particle Physics	3
Additional Coursework ¹		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. 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 / Elevation to Candidacy.

Culminating Events:

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.

Comprehensive Examination:

The MS 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.

MS students in the Coursework Track are required to take the comprehensive examination in the summer at the end of their first year of full-time graduate study. They are tested on the subject matter in six core courses: PHYS 5101, PHYS 5301, PHYS 5501, PHYS 5701, PHYS 5702, and PHYS 8102. In the event of failure, the exam may be retaken once. Any student who fails a second time is dropped from the graduate program.

Contacts

Department Web Address:

<https://www.temple.edu/academics/degree-programs/physics-ms-st-phys-ms>

Department Information:

Dept. of Physics
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215-204-7634

Submission Address for Application Materials:

<https://cst.temple.edu/academics/graduate-programs/apply-now>

Department Contacts:

Admissions Chair:

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