

MS in Physics

Through its Master of Science (MS) degree program, the physics group in the department of mathematics, statistics and physics helps students prepare for doctoral work in physics or for STEM related jobs in research and industry.

The MS degree program is flexible, allowing students to design their studies to meet their educational or career goals. Students may combine the study of physics with interest in such fields as astronomy, engineering, geology, computer science, mathematics and education.

Admission

Admission to the MS program in physics requires the completion of 24 credit hours of undergraduate physics, including 3 credit hours of mechanics and 3 credit hours of electricity and magnetism. Graduate School admission requirements must also be met.

Program Requirements

The MS degree in physics requires the successful completion of a plan of study approved by the student's advisor and the director of physics/department chairperson. Two options are available: a 36 credit hour nonthesis program, and a 30 credit hour program that includes a research project written as a thesis.

Course	Title	Hours
Select at least 12 credit hours in courses numbered 800 or above. The following are recommended by the department		12
PHYS 821	Classical Mechanics	
PHYS 831	Classical Electricity and Magnetism	
PHYS 871	Statistical Mechanics	
PHYS 811	Quantum Mechanics	
Select 12 additional credit hours ¹		12
Select one of the following options		
<i>Nonthesis Option</i>		12
Select 12 additional credit hours		
<i>Thesis Option (research project written as a thesis)</i>		6
PHYS 809	Research	

¹ A plan of study may consist of up to 12 credit hours of coursework taken outside the department.

Examination

During the first semester, students may be given a diagnostic entrance examination to determine preparedness for graduate coursework or course equivalency of prior graduate work. An oral defense of the thesis is required.

Other Program Options

Other program options are available which provide the possibility of combining the study of physics with interests in other fields such as astronomy, engineering, mathematics, geology, computer science, chemistry, biological sciences and education.

Applied Learning

Students in the MS in physics are required to complete an applied learning or research experience to graduate from the program.

The requirement can be met by completing the thesis option. For the nonthesis program, several options are available to meet the requirement. Among these are the completion of a research paper, PHYS 816 or other options individually approved by the graduate advisor or the chair/director of physics.