PHYSICS - M.S.

College of Arts and Sciences
Department of Physics
www.kent.edu/physics

About This Program

The Master of Science degree in Physics consists of graduate coursework and a research project taking one or two semesters. The research project should result in a written report. Students may choose to complete a thesis, to be defended orally. This degree provides entry-level qualifications for team research employment or a high school teaching career.

Contact Information

- Program Coordinator: **John Portman** | jportman@kent.edu | 330-672-9518
- Connect with an Admissions Counselor: U.S. Student | International Student

Program Delivery

- **Delivery:**
  - In person
- **Location:**
  - Kent Campus

For more information about graduate admissions, visit the graduate admission website. For more information on international admissions, visit the international admission website.

Admission Requirements

- Bachelor's degree from an accredited college or university
- Minimum 2.750 undergraduate GPA on a 4.000 point scale
- Official transcript(s)
- Résumé or vita
- Goal statement
- Three letters of recommendation
- English language proficiency - all international students must provide proof of English language proficiency (unless they meet specific exceptions) by earning one of the following:
  - Minimum 550 TOEFL PBT score
  - Minimum 79 TOEFL IBT score
  - Minimum 77 MELAB score
  - Minimum 6.5 IELTS score
  - Minimum 58 PTE score
  - Minimum 110 Duolingo English score

Application Deadlines

- **Fall Semester**
  - Priority deadline: February 1
    Applications submitted by this deadline will receive the strongest consideration for admission.
- **Spring Semester**
  - Application deadline: September 1
    Applications submitted after this deadline will be considered on a space-available basis.

Program Requirements

Major Requirements

Code	Title	Credit Hours
PHY 65101	CLASSICAL MECHANICS	3
PHY 66161	QUANTUM MECHANICS I	3
Graduate-Level Electives [1]		12-14
Major Electives, choose from the following:		6-8
PHY 55201	ELECTROMAGNETIC THEORY	
PHY 55301	THERMAL PHYSICS	
PHY 55401	MATHEMATICAL METHODS IN PHYSICS	
PHY 65203	CLASSICAL ELECTRODYNAMICS I	
PHY 65301	STATISTICAL MECHANICS I	
Culminating Experience		
Choose from the following:		6
PHY 60098	RESEARCH [2]	
PHY 60199	THESIS I [3]	
Minimum Total Credit Hours:		**32**

1 Electives are selected in consultation with the student's faculty advisor and approved by the department.
2 Students who select research (non-thesis option) are required to submit a written research report.
3 Students who select the thesis option are required to submit and orally defend a thesis. The thesis topic is chosen together with the research advisor and must be defended to a committee of physics graduate faculty.

Program Learning Outcomes

Graduates of these programs will be able to:

1. Demonstrate cognitive skills important to a physicist, including the following:
   a. Think critically and analytically;
   b. Define and solve problems in physics; and
   c. Conduct quantitative research in a contemporary area of physics.
2. Demonstrate a core knowledge and understanding of the foundations of physics.
3. Communicate results of their work to peers, to various target groups within the physics community and to people outside the discipline. Teaching skills also come under this heading.