TEACHING OF PHYSICS, MS

for the degree of Master of Science in Teaching of Physics

The Department of Physics offers graduate programs leading to the degrees of Master of Science and Doctor of Philosophy in Physics and Master of Science in Teaching Physics. The Department is actively developing a new paradigm for graduate physics education and research for the 21st century, aimed at enhancing interdisciplinary interactions and creating an integrated approach to educational and research training. Outstanding graduate research opportunities are available in many subdisciplines of physics, including condensed matter physics, high energy and nuclear physics, astrophysics, atomic physics, molecular and optical physics, complex systems, quantum information, biological physics, physics education research.

Students may select experimental, theoretical, or computational thesis projects. Multidisciplinary projects are especially encouraged, and, with the consent of other departments, students may earn master's degrees in areas such as materials science and engineering, or computer science, simultaneously with their PhD degrees in physics.

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For additional details and requirements refer to the department's Degree Requirements (http://physics.illinois.edu/grad/degree-requirements.asp) and the Graduate College Handbook (http://grad.illinois.edu/gradhandbook/).

Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
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<tr>
<td></td>
<td>At least 2 education courses selected in consultation with the Physics Advisor based on the student's interests</td>
<td>8</td>
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<tr>
<td></td>
<td>Elective courses (subject to Other Requirements and Conditions below)</td>
<td>24</td>
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<tr>
<td>Total Hours</td>
<td></td>
<td>32</td>
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Other Requirements and Conditions

<table>
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<tr>
<th>Requirement</th>
<th>Description</th>
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<tr>
<td>Other Requirements and Conditions may overlap</td>
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<tr>
<td>A minimum 16 PHYS credit hours, with 8 at the 500 level.</td>
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<tr>
<td>A maximum of 8 hours of PHYS 597 (or other individual study) may be applied toward the elective course work requirement.</td>
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<tr>
<td>A minimum of 12 500-level credit hours applied toward the degree.</td>
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<td>Minimum GPA:</td>
<td>2.75</td>
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Illinois Physics MS Teaching in Physics graduates will have:

1. a firm foundation in core physics, math, and current physics research topics;

2. an ability to work collaboratively with a diverse team;
3. an ability to teach and mentor others effectively;
4. an understanding of the student's professional and scientific ethical responsibilities;
5. some exposure to modern educational methods; (6) an ability to communicate—both orally and in writing—scientific topics effectively to specialists in the student's research subfield, to scientifically literate non-specialists, and to the general public (outreach).

Graduate Programs in the Department of Physics

- Majors
  - Physics, MS (http://catalog.illinois.edu/graduate/engineering/physics-ms/)
  - Engineering: Instrumentation and Applied Physics, MEng (http://catalog.illinois.edu/graduate/engineering/engineering-meng/instrumentation-applied-physics/)
  - Physics, PhD (http://catalog.illinois.edu/graduate/engineering/physics-phd/)
    - optional concentrations
      - Computational Science and Engineering (http://catalog.illinois.edu/graduate/engineering/concentration/computational-science-engineering/)

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Physics

Department Head: Matthias Grosse Perdekamp (mgp@illinois.edu)
Director of Graduate Studies: Lance Cooper (slcooper@illinois.edu)
Physics Department website (http://physics.illinois.edu)
227 Loomis Lab, 1110 W Green St, Urbana, IL 61801
(217) 333-3645
Physics Graduate Office email (grad@physics.illinois.edu)
Physics Department Faculty (https://physics.illinois.edu/people/directory/)

Grainger College of Engineering

Grainger College of Engineering website (https://grainger.illinois.edu/)

Admissions

Physics Graduate Admissions & Requirements (https://physics.illinois.edu/admissions/graduates/admissions-requirements.html)
Graduate College Admissions & Requirements (https://grad.illinois.edu/admissions/apply/)

Information listed in this catalog is current as of 09/2023