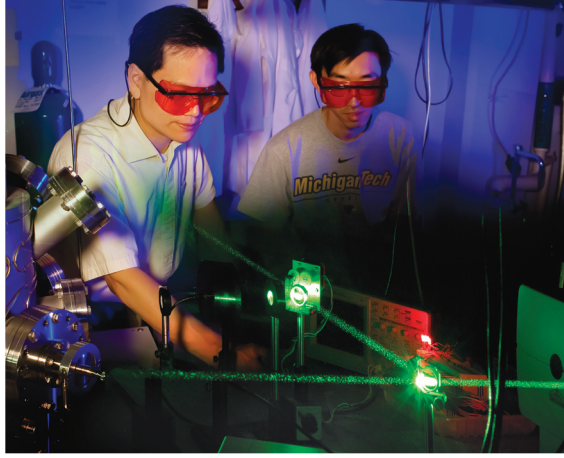
Michigan Tech
Create the Future

GRADUATE SCHOOL

COLLEGE OF SCIENCES AND ARTS



EARN YOUR GRADUATE DEGREE IN PHYSICS

PHYSICS (MS, PHD), ENGINEERING PHYSICS (PHD)

RESPECTED PROGRAMS

The Department of Physics at Michigan Tech is ranked in the top 25 percent nationally, in terms of PhD expenditures, by the National Science Foundation. The department offers programs leading to the MS and PhD degrees in Physics and the PhD degree in Engineering Physics. Graduate work focuses on nano-materials research, computational nano-electronics, computational biophysics, quantum optics, atomic and molecular physics, atmospheric physics, and astrophysics, with many opportunities for interdisciplinary and international collaborations. The MS and PhD programs all build on a foundational curriculum of six core courses plus additional electives. In the MS program, students may choose from three degree plans: a research thesis, an independent study project, or course work only. In addition to formal course work, the PhD in Physics emphasizes research and discovery that leads to a significant original contribution to the field. The PhD degree in Engineering Physics closely parallels the physics PhD program. However, students focus more intensely on applying the principles of physics to engineering problems, in collaboration with physics and engineering faculty. The PhD in Engineering Physics prepares graduates for careers in both industry and academia.

RESOURCES

A recent $2.5 million renovation provided major upgrades in physics classroom technology. A new gift of $700,000 is enabling a major upgrade to physics research facilities. Physics hosts seven labs, is involved in the operation of three observatories, and provides a machine shop and advanced research computing workstations and clusters. Researchers also have easy on-campus access to scanning electron microscopy labs and other advanced characterization and fabrication facilities.

RESEARCH

From astronomy to molecular physics, research in physics spans vast orders of magnitudes in space, time, and energy. Atomic properties of rare earth elements, spin polarization and molecular-electronics devices, carbon and boron nitride nanotubes and devices, atomic clusters, photonics and waveguides, quantum cryptography and communications, atmospheric and cloud-formation processes, and gamma ray bursts are all studied here. Faculty and students also study the highest energy cosmic rays at the Auger Observatory, the largest observatory in the world.

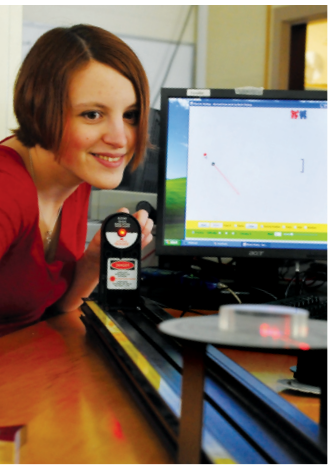
The department is home to seventeen active research faculty, as well as adjunct faculty, visitors, postdocs, and more than thirty graduate students.

To learn more, visit www.phy.mtu.edu.

PHYSICS SPOTLIGHT

Teboh Roland ’04
PhD, DABR
Radiation Oncology Physicist, Johns Hopkins University Hospital

“Michigan Tech provided me with the solid graduate foundation in physics that I needed to succeed in my chosen medical specialty. Michigan Tech professors and the very friendly and safe Houghton community provide a very conducive environment for any individual to exploit their God-given talent to the fullest. I would choose no other university if I had to do it all over again.”



ADMISSION REQUIREMENTS

Application deadline: Apply by March 1 (January 15 recommended for international applicants) to improve your chances to receive funding. Applications are reviewed on an individual basis using a holistic approach.

All Students

- Graduate School application
- Statement of purpose
- Official transcripts
- GRE required
- Three letters of recommendation
- Admitted applicants typically have an undergraduate GPA of 3.0/4.0 or better

International Students

- TOEFL: Recommended score of 88 iBT

FINANCE YOUR FUTURE

Earning your graduate degree is an investment in your career and your future. Here are a few financial aid opportunities you can explore as you look for ways to pay for your degree.

- The Department of Physics offers teaching or research assistantships to qualified graduate students. A limited number of fellowships are also available.
- Many graduate students are eligible for a new set of federal loans, up to $20,500 per academic year, as an independent student.
- Contact Michigan Tech's Financial Aid Office at 906-487-2622 or finaid@mtu.edu for more information on financial aid opportunities.

ABOUT MICHIGAN TECH

Michigan Technological University, founded in 1885, has gained worldwide recognition for innovative education and scholarship. Michigan Tech is a leading public research university, exploring the boundaries of knowledge, developing new technologies, and preparing students to create the future for a prosperous and sustainable world. Michigan Tech offers more than fifty graduate degree programs in engineering, forestry and environmental sciences, computing, business and economics, natural and physical sciences, technology, humanities, and social sciences.

ABOUT HOUGHTON

Houghton lies in the heart of Upper Michigan's scenic Keweenaw Peninsula. The campus overlooks the Keweenaw Waterway and is just a few miles from Lake Superior. The area's waters and forests, including our 600-acre recreational forest adjoining campus, offer students unparalleled opportunity for outdoor recreation and relaxation. The University's 7,000 students come from all fifty states and approximately eighty nations, making the area a vibrant, multicultural community.

APPLYING IS EASY—AND FREE!

www.mtu.edu/gradschool/admissions/apply

Department of Physics

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