

New frontiers of physics

The Department of Physics recently hired Patricia Rankin, the first woman to serve in this leadership role. Rankin has a PhD in High Energy Particle Physics from Imperial College London, focusing on questions such as “Why is there so little antimatter in the universe?”. Before coming to ASU, Rankin worked at University of Colorado Boulder as a Professor of Physics and Associate Vice Chancellor for Research.

One of Rankin's biggest priorities for the department is inclusivity, and that everyone brings their own perspectives in and has a unique set of skills. Her charge to physics faculty and students is to seek and set the pace for the New Frontiers of Physics, through Ultra EFRC, Biology in motion, and physics education. We are actively becoming the new Physics 2.0 Department of the future.



“We have some cutting edge facilities here, the Compact X-ray Free Electron Laser, or CXFEL being just the latest, that allow us to do research at the frontiers of physics. When people decide what physics department they want to be a part of, I want our department to be the one they choose.”

— Patricia Rankin
Department of Physics chair

Philanthropy fuels possibilities

When you give to our school, you become a partner in the academic success of our students, the research discoveries of our faculty and the continued effort to make the world better. We constantly strive to improve and innovate our department to make learning here better for all students, faculty, and staff. From scholarship support to funding for a specific research cause, your generosity and investment benefits our community profoundly and enables our school to achieve the highest standards of excellence, access and impact.

physics.asu.edu



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Department of Physics

Fact sheet

Natural Sciences

ASU The College
of Liberal Arts and Sciences
Arizona State University

362

**undergraduates
(online and
immersion)**

97

**graduates
(immersion)**

62

**bachelor's
degrees**

23

**graduate's
degrees**

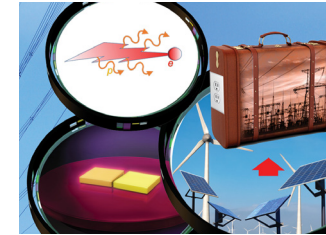
The **foundation** of all science

Physics is the most fundamental of sciences and encompasses everything we do. Whether modeling the smallest particles in the universe, tracking the path of a single molecule in a living cell, or exploring new energy sources in the lab, the Department of Physics' innovative research areas and cross-disciplinary collaborations are at the forefront of today's most compelling questions. Physics is a foundational science that is key to finding solutions.



Leading global impact and innovative solutions

The Department of Physics offers opportunities to learn from some of the brightest minds in the field. Our faculty, researchers and mentors are nationally and internationally renowned within the field of physics. From members of prestigious science organizations to authors of leading science journals, our staff and faculty are at the forefront of innovation in physics.



Creating an energy efficient society

Ultra Materials for a Resilient, Smart Electricity Grid (Ultra EFRC), is working steadfast to launch a Future Grid Co-Design Ecosystem enabling communication across all levels of the science and technology. Our society needs higher power and higher switching frequency electronics, Ultra EFRC will provide the scientific basis and a co-design for an electrified economy and more energy efficient interconnected society.



Growing physics education

The Department of Physics has the only master's degree program developed for in-service teachers to enhance their career with interdisciplinary graduate training in physics and related sciences. With the leadership of Kelli Warble, a teacher-in-residence in the department, and the vice president of the American Association of Physics Teachers, we look for solutions to address the STEM teacher shortage.



Biology in motion

Assistant Professor Douglas Shepherd was awarded two Scialog Advanced Bioimaging awards that will fund two research projects using optics to visualize and quantify molecular biology in challenging settings. This high-impact work is a prime example of the innovation taking place within the Department of Physics and Center for Biological Physics.

Diversity-informed research

With a focus on advocating for equity and social justice, students in the Department of Physics are able to have important conversations and develop diversity-informed research, while becoming prepared to thrive in today's interconnected world. As members of the American Physics Society's Inclusion, Diversity and Equity Alliance, the Department of Physics is committed to upholding a safe, welcoming environment where everyone can hone their unique perspectives and skills.

121

**Racially and ethnically
diverse students**

23%

**First generation (immersion
and ASU Online)**

32%

**Pell Grant eligible
(immersion and ASU Online)**

21%

female student population

To be recognized as a woman in physics and to have these kind of opportunities available to me — that meant a lot just because I know that there are a lot of women in the past who would have loved to have this opportunity and they couldn't."

Anna Costelle
Physics (BS)
Mathematics (BS)

