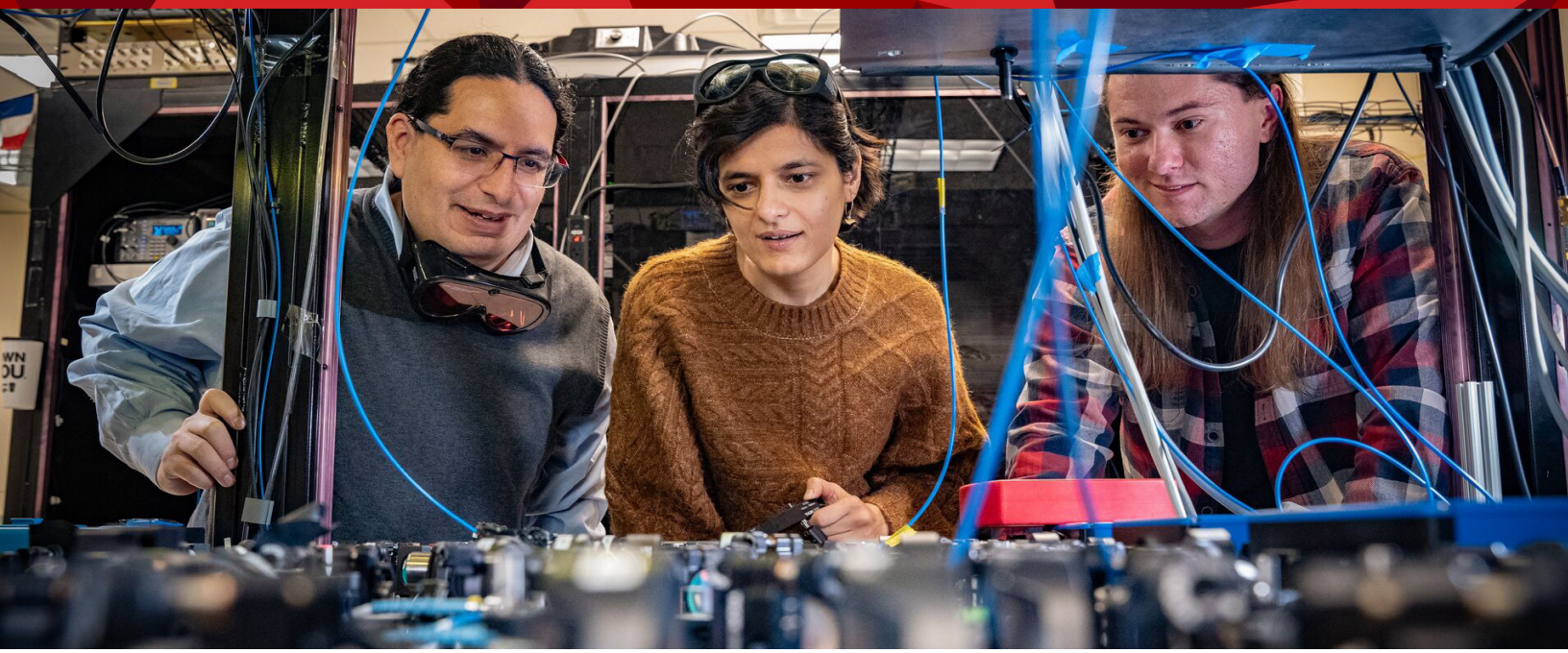
Physics

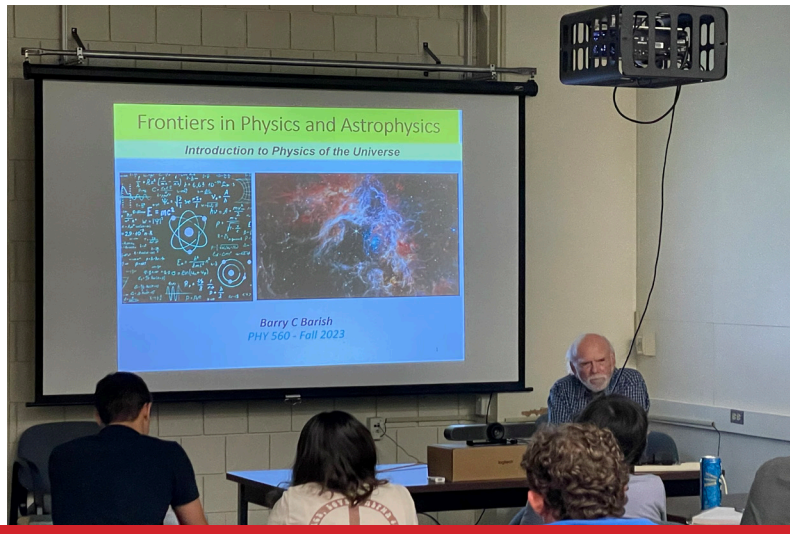


Physics is crucial to understanding the world around us. It is the most fundamental natural science; using experimental observations and mathematical models, it explores the behavior of the universe from the largest to smallest scales, from the lowest to the highest energies, from the classical to the quantum world.

The Department of Physics and Astronomy consistently ranks among the best and largest in the country. With more than 70 on-site faculty members working across a wide range of fields, it offers a rigorous and diverse physics program that puts an emphasis on the integration of teaching and research, offering various opportunities for students within the Department and its affiliated Centers and Insitutes. Its Master of Arts in Teaching Program is one of the top producers of physics-teacher graduates in the US.

PROGRAMS

- BS in Physics
- Minor in Physics
- Master of Science program in Instrumentation (MSI)
- MA in Physics
- Master of Arts in Teaching (MAT)
- PhD in Physics



Barry Barish, *President's Distinguished Endowed Chair in Physics and 2017 Nobel Laureate in Physics for the discovery of the gravitational waves in collaboration with LIGO, teaches "Frontiers of Physics and Astrophysics."*

Daniel Julien '25, a physics and applied mathematics double major, is part of Assistant Professor Jesús Pérez-Ríos's research group, using machine learning for atomic and molecular physics.

"There's a huge emphasis on critical thinking and scientific communication. We are given project ideas, and we're allowed to explore what we think is a good approach. As we work on the problems, Dr. Perez Rios will mentor us, and lead us in the right path. But there's always a level of individual freedom in the group, which I really like."

RESEARCH OPPORTUNITIES

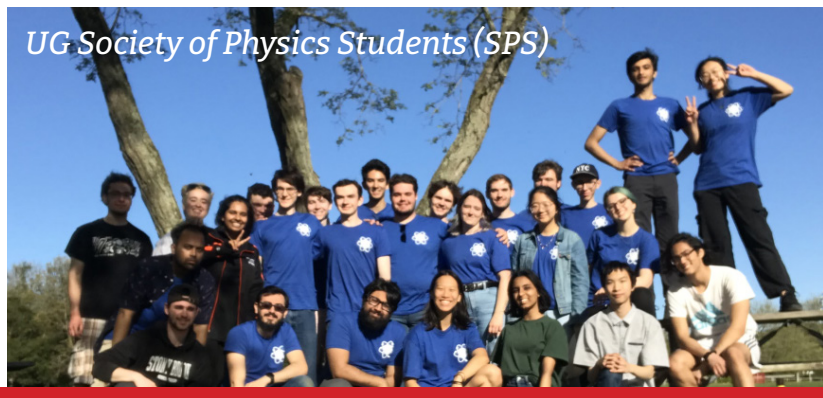
The Department is involved in many collaborative research projects at SBU and other area institutions including:

- CN Yang Institute for Theoretical Physics
- Simons Center for Geometry and Physics
- Center for Frontiers in Nuclear Science
- Center for Distributed Quantum Processing
- Center for Accelerator Science and Education
- Laufer Center for Physical and Quantitative Biology
- Institute for Advanced Computational Science
- Flatiron Institute
- Brookhaven National Laboratory

CAREERS TO EXPLORE

You'll gain the knowledge and skills to work in many different professions, including:

- Astronomy and space
- Engineering, robotics and AI
- Medical physics
- Climate science, renewable energy
- Quantum information science and technology
- Banking, finance, software development, computing, and consultancy
- Education



UG Society of Physics Students (SPS)

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