UNDERGRADUATE STUDIES IN

PHYSICS

The School of Physics offers bachelor of Science degrees in **physics** and **applied physics**, with optional concentrations in **astrophysics** and the **physics of living systems**. The undergraduate degrees are broad based with an initial emphasis on core topics such as classical and quantum mechanics, electromagnetism, and thermodynamics. This is followed by a range of more specialized courses including atomic, solid state, optical, nuclear and particle physics; biophysics, astrophysics, nanoscience and relativity. The relatively large number of physics majors (more than 250) allows for a wide range of courses to meet the interests of a diverse student group. Students are able to develop their own programs of study with the aid of faculty advisement.

Building the foundation for academic and industry careers

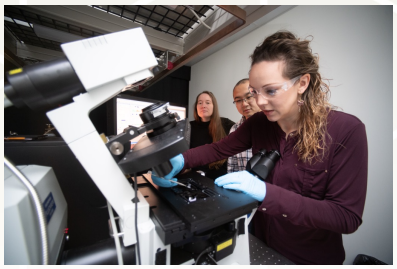
Approximately half of all physics majors progress to doctoral study at either Georgia Tech or at other prestigious universities. Students may also go to graduate school in other disciplines such as electrical engineering and materials science, where a bachelor degree in physics is recognized as effective preparation. Other students choose to go into education, business and industry. Banking (economic forecasting) and oil exploration are among the many areas that seek physics majors.

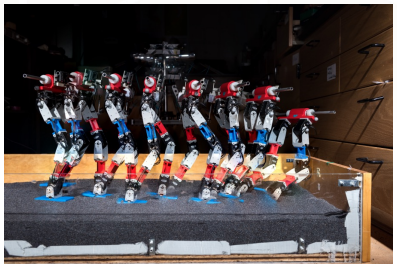
Creating community

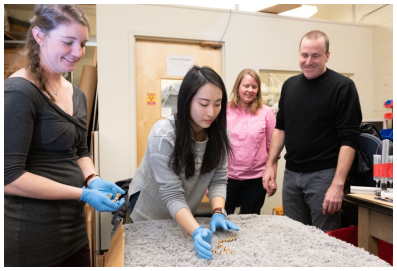
The Society of Physics Students at Georgia Tech provides a vibrant scholarly and social environment, as well as an introduction to the community of physicists. Activities such as general interest lectures, outreach, field trips and social functions allow students to interact with their peers and faculty members.

FOR MORE INFORMATION

For more information, please see **physics.gatech.edu**.







Undergraduate research

Undergraduate students working in world renowned research groups in the school have the opportunity to contributed to research published in leading scholarly journals, and to attend premier conferences in their fields. For example:

- Lila Nassar investigated the biophysics of cell cultures using a variety of microscopies in the laboratory of Prof. Jennifer Curtis and has also conducted research in quantum magnetism under the direction of Prof. Martin Mourigal.
- Yashvardhan Tomar, working with Prof. Gongjie Li and her collaborators, carried out computational investigations of the dynamical evolution of stars near the Galactic Center.
- As Letson Scholars, Sam Quinn conducted theoretical studies of turbulence in the group of Prof. Roman Grigoriev, while Yiting Pei attempted to optimize the spectroscopy of thullium atoms embedded in a noble gas matrix in the laboratory of Prof. Colin Parker.
- James McCord used tensor network methods employed in quantum information theory to investigate data compression, as a Letson Scholar under Prof. Glen Evenbly.
- As a Petit Scholar, Julianne Tijani studied the entropy production of antibiotic
- resistant bacteria in Prof. Peter Yunker's laboratory.

International opportunities

Students in the School of Physics have a wide range of opportunities for undergraduate study at institutions throughout the world. Further information can be obtained from the Office of International Education (www.oie.gatech.edu).

Careers

The B.S. programs in physics and applied physics provide exceptional levels of preparation for graduate study and professional graduate programs (e.g., medicine, veterinary science, pharmacy, law, etc.) Graduates take positions in all types of employment sectors, such as:

- Consulting
- Nonlinear Physics
- Health Physics
- Aerodynamics
- Condensed Matter Physics
- Medical Instrumentation
- Optics
- Sales and Marketing
- Nuclear Physics
- Acoustics
- Communications
- State and Federal Agencies (e.g., NIST, NASA)
- Research and Development
- Astrophysics and Astronomy
- Particle and Atomic Physics
- High School and College Teaching

Georgia Tech has the largest voluntary **co-op education program** in the nation. Participation in co-op or internship programs provides financial support for students' studies, and invaluable experiences. See **www.coop.gatech.edu**.

- Georgia Tech is one of the top schools in terms of the annual percentage return on investment whereby lifetime salary is compared to tuition costs [1].

[1] https://finaid.gatech.edu/costs/return-on-investment

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