

# PHYSICS

In GW's physics programs, students study fundamental physical laws and learn how to apply them to the surrounding world. Through courses ranging from classical mechanics to electromagnetic theory, the physics program aims to strengthen students' ability to use mathematical logic, deductive reasoning, developed intuition, and careful observation. Program students find a unique home in GW's Science and Engineering Hall, which features more than 100 laboratories and classrooms. The program also provides opportunities for students to engage in research on campus and at local research centers, such as the National Institute of Standards and Technology, U.S. Naval Research Laboratory, Thomas Jefferson National Accelerator Facility, and NASA.

Visit the Department of Physics website (<https://physics.columbian.gwu.edu/>) for additional information.

## UNDERGRADUATE

### Bachelor's programs

- Bachelor of Arts with a major in physics (<https://bulletin.gwu.edu/arts-sciences/physics/ba/>)
- Bachelor of Science with a major in astronomy and astrophysics
- Bachelor of Science with a major in biophysics (<https://bulletin.gwu.edu/arts-sciences/physics/bs-biophysics/>)
- Bachelor of Science with a major in physics (<https://bulletin.gwu.edu/arts-sciences/physics/bs/>)

### Minors

- Minor in astronomy and astrophysics (<https://bulletin.gwu.edu/arts-sciences/physics/minor-astronomy-astrophysics/>)
- Minor in biophysics (<https://bulletin.gwu.edu/arts-sciences/physics/minor-biophysics/>)
- Minor in physics (<https://bulletin.gwu.edu/arts-sciences/physics/minor/>)

## GRADUATE

### Master's program

- Master of Science in the field of physics (<https://bulletin.gwu.edu/arts-sciences/physics/ms/>)

## DOCTORAL

### Doctoral program

- Doctor of Philosophy in the field of physics (<https://bulletin.gwu.edu/arts-sciences/physics/phd/>)

## FACULTY

Professors: A. Afanasev, E.J. Downie, G. Feldman, H. Griesshammer, N. Johnson, C. Kouveliotou (Chair), F.X. Lee, W. Peng, M.E. Reeves, C. Zeng

Associate Professors: A. Alexandru, B. Cobb Kung, K.S. Dhuga, M. D#ring, S. Guiriec, H. Haberzettl, O. Kargaltsev, X. Qiu, A.J. van der Horst

Assistant Professors: A. Schmidt

Adjunct Professors: I. Moskowitz, G. White, I. Strakovsky (Research), R.L. Workman (Research)

Professorial Lecturers: G. Angelini, L. Borbonet, N. Jha, M. Lujan

## COURSES

### Explanation of Course Numbers

- Courses in the 1000s are primarily introductory undergraduate courses
- Those in the 2000s to 4000s are upper-level undergraduate courses that can also be taken for graduate credit with permission and additional work assigned
- Those in the 6000s and 8000s are for master's, doctoral, and professional-level students
- The 6000s are open to advanced undergraduate students with approval of the instructor and the dean or advising office

Departmental prerequisite: Consent of a departmental graduate advisor is required for admission to all graduate courses in physics.

- Astronomy (ASTR) (<https://bulletin.gwu.edu/courses/astr/>)
- Physics (PHYS) (<https://bulletin.gwu.edu/courses/phys/>)