DEPARTMENT OF PHYSICS, ASTRONOMY & GEOSCIENCES

Science Complex, Room 3150
Phone: 410-704-3020
Fax: 410-704-3511
Email: pags@towson.edu

Departmental Honors Program

The Department of Physics, Astronomy and Geosciences offers a departmental honors program for students who demonstrate exemplary abilities in their discipline. Such students will work closely with faculty mentors in an individual program of research, directed readings, independent study, and seminar. Departmental honors will be posted to the transcript shortly after the bachelor's degree is conferred.

Criteria for Admission into the Departmental Honors Program

1. Completion of at least 60 units of undergraduate course work.
2. Overall cumulative average of 3.00 or above and a 3.25 or above cumulative average in their major course requirements. Students below this threshold may appeal to the Department Honors Coordinator.

Contact the department for a list of detailed procedures for applying to the departmental honors program.

Department Activities and Awards

Research

Students are strongly encouraged to participate in research at TU or in summer research programs. Faculty advisers will assist students in finding a research project of interest. Undergraduate research and travel grants are awarded by TU and FCSM on a competitive basis to provide support for student research.

Internships

Majors are encouraged to participate in internship programs and receive academic credit. Internships may be undertaken in either the public or private sector. Internships must have a significant physics or geology component. At the completion of the internship, students are required to submit for evaluation a portfolio describing the work undertaken and give a public seminar. This portfolio and seminar will be evaluated by department faculty.

Student Organizations

Students in Physics, Astronomy, and Geosciences are encouraged to actively participate in the student based organizations within the department. These include the Geology Club, the National Society of Black Engineers, the Society of Physics Students, and the TU Astronomical Society. For some of these organizations, students are permitted to join the national organization and to obtain publications, services at reduced rates, grants, and awards.

Departmental Awards

Departmental student awards are given annually for outstanding work in chemistry courses. These include:

- Edward L. Rubendall Physics Achievement Award - The awards were established in honor of Professor Emeritus Edward J. Rubendall by friends of the department. The awards are presented annually to outstanding junior and senior physics majors in the department.
- Geosciences Achievement Award - These awards are presented to two outstanding students in the Geosciences program. They must be of junior or senior standing.
- William F. Pelham Award - This award was established in honor of Professor Emeritus William F. Pelham by his friends at Towson University and in the greater Baltimore arts community. The award is presented to outstanding juniors in the department.
- Eddie Loh Graduate Scholarship - This award was established by Professor Emeritus Eddie Loh. It is given annually to graduate students in the Masters in Applied Physics program.
- Eddie Loh Undergraduate Scholarship - This award was established by Professor Emeritus Eddie Loh. It is given annually to undergraduate physics majors.
- Thomas Krause Scholarship - This scholarship in honor of Professsor Emeritus Thomas Krause is awarded annually to undergraduate physics majors.
- American Mineralogist Undergraduate Award

Majors

- Major in Biophysics
- Major in Physics
  - General Physics Concentration
  - Applied Physics Concentration
  - Astrophysics Concentration
  - Computational Physics Concentration
- Major in Physics with Secondary Education Concentration
- Major in Earth-Space Science
- Major in Earth-Space Science with Secondary Education Concentration
- Major in Geology
- Major in Interdisciplinary Physics
  - Computational Physics Concentration
  - Physics Innovation and Entrepreneurship Concentration
  - Planetary Science Concentration
- Accelerated B.S. in Physics and M.S. in Applied Physics
- B.S. in Physics and M.S. in Computer Science (individualized accelerated plan)

Minors

- Minor in Physics
- Minor in Astronomy
- Minor in Geology

Faculty

Professors: Parviz Ghavamian, Phuoc Ha, Ronald Hermann, Rajeswari Kolagani (Graduate Program Director), Pamela Lottero-Perdue, Rommel Miranda, Joel Moore, James Overduin, Cody Sandifer, David Schaefer, Jennifer Scott (Chairperson), Jeffrey Simpson, Vera Smolyaninova, Jia-An Yan

Associate Professors: Michelle Casey, Peggy McNeal, Wendy Nelson

Assistant Professors: George Guice, Alan Jackson, Abdul Naseer Malmi-Kakkada

Assistant Teaching Professor: Animesh Chakraborty, Laura Etchemaite-Walborn, Tobias Hasse, Dylan Hilligoss, Miguel Requena Torres

Associate Teaching Professor: Andrew Hawkins, Nicolas Kudsieh, Eriks Perkons, Christian Ready, Tevis Tsai