Physics, Ph.D.

Graduate study in physics and astronomy is highly individualized. The department does not offer a Ph.D. in astronomy, but students may pursue a Ph.D. in physics with an astronomy subprogram and a dissertation in astronomy. Each entering graduate student is assigned a faculty advisor, who assists in preparing a plan of study and in guiding the student's progress.

Learning Outcomes

Graduates will:

• understand the foundational principles that transcend many distinct areas, and learn the technical language, problem-solving skills, and training in technical listening and discussion;
• learn, practice, and discover advanced discourse in mathematical aspects that translate to physics;
• become familiar with the state-of-the-art experimental tools and equipment in the field;
• develop skills for creativity and originality in the field and promote communication of new discoveries;
• learn and practice advanced discourse in experimental and observational aspects, including data and information mining, translating experimental observations to physical principles and vice versa; and
• learn analysis of data and computational skills as well as become familiar with state-of-the-art techniques for data processing.