Degree Requirements, Astronomy

Graduate handbook information is updated and maintained by each program. Graduate handbooks are available within each program's office and online at https://utexas.box.com/v/UTAustinGraduateHandbooks. Please contact the program with concerns or questions.

Master of Arts

The Master of Arts degree in Astronomy requires completion of 33 credit hours of coursework, including a six-hour Master's Thesis course, Astronomy 698A and Astronomy 698B. Students must earn a grade of B- or higher in all courses that count towards the degree. At least seven courses must be drawn from categories A through C below. Students must also complete two elective courses selected from categories A through D below. With approval of the student's research supervisor and the graduate advisor, electives may include graduate coursework offered by other related programs. In addition, all students are required to attend a professional development seminar in the fall semester of their first year.

Students begin research during their first year. Research is done under the supervision of a research supervisor and committee and normally takes a year and a half. A Master's Thesis is developed under the guidance of the committee. The thesis must be approved by the committee and submitted in electronic format to the Graduate School.

Doctor of Philosophy

Students must complete at least 33 credit hours of coursework, including a minimum of six credit hours of the dissertation course, Astronomy 399W, Astronomy 699W or Astronomy 999W. Students must earn a grade of B- or higher in all courses that count towards the degree. At least seven courses must be drawn from categories A through C below. Students must also complete two elective courses selected from categories A through D below. With approval of the student's research supervisor and the graduate advisor, electives may include graduate coursework offered by other related programs. In addition, all students are required to attend a professional development seminar in the fall of their first year.

Students are strongly encouraged to begin research during their first year. Research is done under the supervision of a research supervisor and dissertation committee and normally takes four to five years. In the spring of their second year, students must present their research to date and pass an oral qualifying examination. Students normally apply for PhD candidacy by the end of the fall of the third year. Students must present their research in a colloquium or seminar once per year. Students must serve as a Graduate Teaching Assistant (T.A.) for a minimum of two semesters during their time in the PhD program. All PhD students must complete a dissertation that constitutes a contribution to knowledge in the field. A satisfactory oral examination is required for approval of the dissertation. The dissertation must be approved by the committee and submitted in electronic format to the Graduate School.

Category A Courses (Fundamental Astrophysics):

Astronomy 380E, *Radiative Processes and Radiative Transfer*
Astronomy 381C, *Gravitational Dynamics*
Astronomy 382C, *Astrophysical Gas Dynamics*

Category B Courses (Astronomy Main Subfields):

Astronomy 386C, *Properties of Galaxies*
Astronomy 393F, *Survey of the Interstellar Medium*
Astronomy 396C, *Elements of Cosmology*
Astronomy 383C, *Stellar Atmospheres*
Astronomy 383D, *Stellar Structure and Evolution*
Astronomy 392J, *Astronomical Instrumentation*
Astronomy 394P, *Planetary Astrophysics*

Category C Courses (Applied Methods):

Astronomy 382D, *Astronomical Data Analysis*

Category D Courses (Specialized Topics):

Astronomy 392D, *Mathematical Methods of Astrophysics*