General education courses are marked with stars (★).

★ 1101 The Solar System (3) Prereq.: MATH 1021 or an ACT mathematics score of at least 21. Fundamental principles of the solar system.

★ 1102 Stellar Astronomy (3) Prereq.: ASTR 1101. Fundamental principles of stellar astronomy.

★ 1108 Astronomy Laboratory (1) 2 hrs. lab. Prereq.: credit or registration in ASTR 1101. Visual observation of positions of celestial bodies with application to star charts and globes; visual and photographic observations will be made using telescopes; provides student with practical observing experience.

★ 1109 Astronomy Laboratory (1) 2 hrs. lab. Prereq.: ASTR 1108, and credit or registration in ASTR 1102. Analysis of light from terrestrial and celestial sources; visual and photographic observations of stars and nebulae; training in the use of smaller telescopes and larger telescopes with multimedia technologies.

2001 Current Topics in Astronomy and Astrophysics (3) S Prereq.: ASTR 1101, 1102. Primarily for nonscience students. Topics of current interest in astronomy; recent topics include extraterrestrial intelligence, black holes, exploration of the solar system.

4221, 4222 Introductory Astrophysics (3,3) V Prereq.: PHYS 1202 or 2102 or consent of instructor. ASTR 4221 is prerequisite for 4222. Sun, stars, and stellar systems; results and problems of modern astrophysical research.

4261 Modern Observational Techniques (3) V Prereq.: ASTR 1101, 1102 and MATH 1552. 1 hr. lecture; 6 hrs. lab. Modern astronomical observations and reductions; the telescope, astronomical photography, spectroscopic and photometric observations and reductions.

4750 Special Topics in Observational Astronomy (3) V Maybe taken twice for credit when topics vary. One topic scheduled each time course is offered; current topics include astronomical spectroscopy and astronomical photometry.

4997 Problems in Astronomy (1-3) Prereq.: consent of instructor. May be taken for a max. of 3 sem. hrs. of credit. Individual reading and theoretical and/or experimental work on advanced problems.

6101 Astronomy for Teachers (4) Su, V For teachers and students in the College of Education. Cannot be taken for degree credit by physics majors. General astronomy including the solar system, stellar astronomy, and stellar systems.

6108 Astronomy Laboratory for Teachers (1-3) Su V For in-service teachers and graduate students in the College of Education. May not be taken for credit by physics majors. May be taken for a max. of 9 hrs. of credit. 2-6 hrs. lab. Visual observation techniques including the use of star charts and globe; visual and photographic observation of celestial objects such as the sun, moon, stars, and nebulae using small reflectors as well as large telescopes through multimedia technologies.

7741, 7742 Stellar Astrophysics (3,3) F,S ASTR 7741 is prerequisite for 7742. Also offered as PHYS 7741, 7742. Application of physical principles to study of stars; spectroscopy, stellar atmospheres, stellar structure, and stellar evolution.

7751, 7752 Galactic Astrophysics (3,3) F,S ASTR 7751 is prerequisite for ASTR 7752. Also offered as PHYS 7751, 7752. Application of physical principles to study of galaxies; interstellar medium, galactic structure and stellar motions, galaxies, and cosmology.

7777 Seminar in Astronomy and Astrophysics (1-6) V May be taken for a max. of 6 sem. hrs. of credit. Also offered as PHYS 7777.

7783 Topics in Astronomy and Astrophysics (3) V May be taken for a max. of 6 hrs. of credit. Also offered as PHYS 7783.