Master Syllabus Department of Physics and Astronomy



ASTR 532 ASTRONOMY AND ASTROPHYSICS 2

Course Description

This course is an examination of observational stellar astronomy with applications to the study of stellar structure and evolution and a review of the physics of stellar systems such as star clusters, galaxies and clusters of galaxies. (4 credit hours)

Prerequisites: ASTR 530. Not open to students who have credit in ASTR 332

Course Objectives

The course is intended to introduce the students to the application of physics and physical laws processes and questions in astronomy.

Course Rationale

The course serves as an elective for physics majors.

Course Content, Format, and Bibliography

Content

Stellar Evolution

The Milky Way galaxy

Galaxies

Expansion of the universe

Large-scale structure

Cosmology and the early universe

Format

Students are evaluated on the basis of homework and examinations. There is also a laboratory component to the course that requires written reports.

This course is taught as a dual undergraduate/graduate course. Students will be required to complete activities appropriate for the level of the course in which they are enrolled. Student performance on homework, exams and/or labs will be evaluated using different standards for undergraduate and graduate students.

Master Syllabus: ASTR 532

Bibliography

Introductory Astronomy & Astrophysics, by Michael Zeilik and Stephen A. Gregory, Saunders College Publishing, 1998.

An Introduction to Modern Astrophysics, by Bradley W. Carroll and Dale A. Ostlie, Addison-Wesley Publishing Company, 2006.

Astronomy a Physical Perspective, by Marc L. Kutner, Cambridge University Press.