Office of Academic Affairs  
Tarleton State University  
August 2004

Master Course Syllabus

**Department:** Chemistry and Geosciences  
**Course Prefix/Number:** ES 3203

**Official Course Title:** Astronomy

Master Syllabus Approved by Department on: _____/_____/_____

   Month   Day   Year

I. Catalog Description

A study of astronomical instrumentation and methodologies of the solar system, star evolution, cosmology, and the origins of the universe, and a review of galactic types and histories. Theory reinforced by field experience. Prerequisites: GEOL 1054 and 1064 or approval of department head. Lab fee $5. Course fee $10.

II. Prerequisites

GEOL 1054, 1064

III. Expanded Course Description

This course is a survey of the Universe. The dominant astronomical structures, galaxy clusters, galaxies, star systems, and planetary systems are covered. A major topic is the nature of electromagnetic radiation. Planets, moons, asteroids, comets, meteorites, and dust are studied. Cosmological theories and hypotheses are discussed.

IV. Intended Student Learning Outcomes

**Knowledge outcomes**
   Upon completion of this course students will:
   
   * understand the major astronomical structures
   * understand the nature of electromagnetic radiation
   * understand the laws of movement and gravity in the Universe

**Skill outcomes**
   Upon completion of the course students will:
   
   * be able to explain astronomical events and features
   * be able to explain electromagnetic (such as visible light) properties
   * be able to take and pass teacher certification tests in this subject

**Value outcomes**
   Upon completion of this course students will:
* be able to understand the importance of astronomical events and features

V. Unless stipulated in this master syllabus by the department, the following items are subject to faculty discretion in each faculty member’s individual course outline/syllabus:

Course Requirements (grading/evaluation procedures; class attendance policy; term papers; projects; field assignments; examinations; class participation; etc)

A combination of lecture exams (2 to 4), lab exams (2 to 4), lab exercises (8-12), and field trips (1-3).

Required texts

A lecture text or texts on astronomy.

Department Head Signature/Date

___________________________   _____/_____/_____

Signature       Date