Outline of Instruction

Division: Science/Mathematics  Area: Science
Course Number: ASTRN 151  Course Name: Introduction to Astronomy
Prerequisite: RDG 090 and ENGL 090 and MATH 090 or qualifying scores on ACT or COMPASS tests
Corequisite: NONE
Hours Required: Class: 60  Lab: 0  Credits: 4 (four)

Course Description/Purpose
This course is a non-mathematical introduction to the principles of the astronomical universe. It is a general education course designed to be of interest to the individual without a scientific background who wishes to study the interrelation of the parts of the universe. Major areas of study include historical overviews, stars, stellar evolution, galaxies, cosmology and the solar system. Some laboratory work and day/evening outside observing may be required.

Major Units

- The Scale of the Cosmos
- The Earth and Sky
- Lunar Phases, Tides and Eclipses
- Origin of Modern Astronomy
- Newton, Einstein and Gravity
- Light and Telescopes
- Starlight and Atoms
- The Sun
- White Dwarfs, Supernovae, Neutron Stars, and Black Holes
- Milky Way Galaxy
- Galaxies
- Peculiar Galaxies
- Cosmology
- The Origin of the Solar System
- Earth
- Inner Planets
- Outer Planets
- Comets, Meteoroids and Asteroids
- Life on Other Worlds

Educational/Course Outcomes
Student learning will be assessed by a variety of methods, including, but not limited to, quizzes and tests, journals, essays, papers, projects, laboratory/clinical exercises and examinations, presentations, simulations, portfolios, homework assignments, and instructor observations.

Cognitive  Each student will be expected to Identify/Recognize . . .
- gain basic understanding of some of the physical properties of the universe around us;
- gain an appreciation of nature on a grand scale;
- better understand life and its dependence on its environment’
- work in a group setting using computer and appropriate software, visualize, discuss, and explain the most basic and interesting astronomical phenomena.

Attitudinal  Each student will be expected to Believe/Feel/Think . . .
- become aware of the benefits that might accrue to society from certain types of astronomical research

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