AST 151A General Astronomy I Lab

COURSE DESCRIPTION:

Prerequisites: DRE-097 **OR** ENG-002,
AND
DMA-010, DMA-020, and DMA-030 **OR** MAT-003
Corequisites: AST 151

The course is a laboratory to accompany AST 151. Emphasis is placed on laboratory experiences which enhance the materials presented in AST 151 and which provide practical experience. Upon completion, students should be able to demonstrate a general understanding of the solar system. *This course has been approved to satisfy the Comprehensive Articulation Agreement general education core requirement in natural sciences/mathematics.*
Course Hours Per Week: Class, 0; Lab, 2; Semester Hours Credit: 1

LEARNING OUTCOMES:

Upon completing requirements for this course, the student will be able to:

1. Demonstrate conceptual understanding of fundamental physical principles and measurement
2. techniques used in modern astronomy.
3. Demonstrate conceptual understanding of astronomical objects and phenomena.
4. Understand various objects within the Solar System.
5. Understand the size, scale, and structure of the Solar System.
6. Be able to observe the sky and gain an understanding of the objects and motions visible.

OUTLINE OF INSTRUCTION:

I. Celestial Sphere
II. Horizon lab
III. Equatorial lab
IV. Moon phase lab
V. Constellation lab
VI. Lenses, Precise motion, Tides, Moonreading
VII. Viewing Sun with telescope, sun spotter and binoculars
VIII. Planetary configuration lab
IX. Venus Terrestrial lab
X. Asteroid lab
XI. Jovian planet lab
XII. Sun spots and solar rotation lab
XIII. Galaxies

REQUIRED TEXTBOOKS AND MATERIALS:

To be selected by Instructor/Discipline Chair.