LABETTE COMMUNITY COLLEGE BRIEF SYLLABUS

SPECIAL NOTE:
This brief syllabus is not intended to be a legal contract. A full syllabus will be distributed to students at the first class session.

TEXT AND SUPPLEMENTARY MATERIALS USED IN THE COURSE (if any):
Please check with the LCC bookstore http://www.labette.edu/bookstore for the required texts for this class.

COURSE NUMBER: PHSC 103
COURSE TITLE: INTRODUCTION TO ASTRONOMY
SEMESTER CREDIT HOURS: 5
DEPARTMENT: Physical Science
DIVISION: General Education
PREREQUISITES: MATH 100 Intermediate Algebra or equivalent
REVISION DATE: February 7, 2014

COURSE DESCRIPTION:
A study via instruction and laboratory experiences of the historical developments in astronomy from ancient times; the theoretical and empirical foundations of astronomy; the composition and mechanics of the solar system, stellar systems, and galactic systems; and introduction to observational astronomy and cosmology.

COURSE OUTCOMES AND COMPETENCIES:
Students who successfully complete this course will be able to:

1. Describe the basic motions of the celestial objects in the sky.
   - Utilize the celestial sphere model to describe motion of the Sun, Moon and stars.
   - Discuss the causes of Earth’s seasonal cycles.
   - Explain the effect of gravity on Earth and throughout the Solar System.
   - Analyze the different types of light and their importance to astronomers.

2. Explain the features that compose the observed phenomenon and objects of the solar system.
   - Describe the features of the terrestrial planets and their believed causes.
   - Indicate the reasoning for the observed interactions between Earth and Moon.
   - Elaborate concerning the characteristics of the outer planets and their moons.
   - Differentiate between the different types of “leftovers” in the Solar System.
3. Describe the stars by their types and evolution over time.
   - Characterize the different types of stars.
   - Discuss the evolution of stars throughout their existence.
   - Predict what will happen to stars as they finish their evolutionary cycle.
   - Explain the basic features of black holes.

4. Describe the macro scale objects and their roles in the universe as a whole.
   - Analyze the features of the Milky Way galaxy.
   - Categorize the different types of galaxies.
   - Briefly elaborate on the usefulness of quasars and other active galaxies.
   - Describe the basic tenants of cosmology and astrobiology