

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.

<u>COURSE NUMBER:</u>	PHSC 103
<u>COURSE TITLE:</u>	INTRODUCTION TO ASTRONOMY
<u>SEMESTER CREDIT HOURS:</u>	5
<u>DEPARTMENT:</u>	Physical Science
<u>DIVISION:</u>	General Education
<u>PREREQUISITES:</u>	MATH 100 Intermediate Algebra or equivalent
<u>REVISION DATE:</u>	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.

- Explain the mechanisms that drive the behavior of the Sun.

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