

ASTRONOMY 101  
SECOND SUMMER SEMESTER: 2006  
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TEXT: THE COSMOS [PASSACHOFF and PHILIPPENKO], 2<sup>nd</sup> EDITION

#### The Objective

The aim of the course is to give a qualitative survey of the history and some current activities in the field of ASTRONOMY.

ASTRONOMY is the oldest science. At present it is a very active science. It is a popular science.

Some of the topics to be discussed in the class are listed below.

We shall discuss the different types of astronomical objects and our efforts to understand the structures of these objects. We will explore some of the processes occurring in these objects.

Astronomical basis for the common time intervals such as Day, Night, Week-Fortnight-Month-Year shall be discussed. Solar and lunar eclipses will be discussed.

We will learn that the analysis of light coming from stars has helped us to understand that the stars are made of the same stuff that we are made of. We will study different types of stars and different types of galaxies.

We shall discuss how Newton's laws of motion and of gravitation help to understand the clockwork of planetary motion. We shall also see how these laws also help to determine the structure of stars.

Astronomy together with physics helped to show the material out of which the sun, earth and living objects are made was produced in the interior of stars.

We shall see how the study of astronomy has lead to the concept that our universe is expanding and is about 15 billion years old.

The course shall cover selected material from chapters 1 – 16 and 20 of the textbook.

GRADES will be determined by four quizzes, three tests and the final exam.

The quizzes shall be on Fridays falling on 30<sup>th</sup> June, 7<sup>th</sup>, 14<sup>th</sup> and 21<sup>st</sup> July.

The quiz with the lowest score shall be dropped. The remaining three quizzes shall contribute 15 percent to the final grade.

The tests shall be on Mondays falling on July 10,17 and 21.

The tests shall contribute 60 percent [20percent each] to the final grade.

The final is on July 27 at noon.

The final shall contribute 25 percent to the final grade.