William Paterson University
Department of Physics

PHYS 1700 General Astronomy (4 cr)

Winter 2018 (Dec 26-Jan 14)

Syllabus

****This course is taught entirely on-line**
Every student at William Paterson has a student university e-mail address. Your university e-mail address is attached to Blackboard, and that is the one that will be used to contact you about assignments and other matters related to the course. **

You must be familiar with attaching files and accessing internet sites. You MUST have ready access to an operational computer, and know how to download programs, use Blackboard, Microsoft WORD and EXCEL for graphing.

Instructor: S.H. Chung
wpu-physics@optonline.net (all correspondence)

Prerequisites: None

Text: Astronomy: A beginner's guide to the universe. 7th ed by Chaisson & McMillan

Other required materials: scientific calculator.

IMPORTANT: At some point you will need to familiarize yourself with the basic operations of Stellarium software. It is important that you are able to download the software from Stellarium.org

Course Objectives:
This online course is an introduction to astronomy concepts of the Earth, the solar system, and the universe. Historical developments in astronomy from ancient mythology to modern science will be covered. Topics include: basic physics/chemistry/math, historical astronomy, the solar system, the earth-moon system, the formation & evolution of stars, galaxies, and frontiers of exploration.

Student Learning Outcomes:
- Effectively express themselves in written form.
- Demonstrate ability to think critically.
- Locate and use information.
- Demonstrate ability to integrate knowledge and ideas in a coherent and meaningful manner.
- Understand fundamental physical principles, theories, and methods of modern science as

practiced in astronomy.
• Learn the basic observable phenomena of astronomy, and how these have had both practical applications and played a key role in advancing our understanding of the Universe.
• Explain the role of modern technology in the investigation of astronomical phenomena, and the crucial role played by technological advances in extending our knowledge of origin and behavior of the Universe.
• Explore how discoveries in astronomy have implications for how we have come to view our place in the Universe, and by comparing the Earth to other planets in our Solar System provide a physical framework for understanding the possible impacts of our activities on the Earth.

Grading:

Evaluation will be based on the following work - (late submission of required work subjected to mark deductions):

Tests: 40 % (2 tests: 12/30/17 and 1/13/18)

Lab work: 40% (10 lab exercises – must obtain a grade of greater than 60% in the lab exercises to get credit for the course)

Current event - writings: 20% (due 12/31/17 and 1/14/18)

Communication and Technical Assistance
1. If you need assistance with the course material please ASK!
2. Please check your WPU email account and the WPU Blackboard on a regular basis for announcements.

Course Content:

-Introduction
- Scientific Method/Basic math, physics, chemistry
-Historical Astronomy
-Experimental Methods - techniques & measurements
-Solar System - Earth, moon, sun, terrestrial & jovian planets
- Stellar systems - sun, energy production, star & galaxy classification
- Cosmology

Course Expectations:

(1) Students are expected to read and study the textbook
(2) Students are expected to complete all assignments and lab exercises.

help: I will be pleased to provide help. Please ask

Academic Dishonesty (PLEASE READ CAREFULLY)

Submitting assessment material for this course which does not represent your original effort is a serious form of academic dishonesty. Having a third party (eg. tutor, friend, etc) complete any of the assessments is in violation of the University regulations on academic dishonesty (ww2.wpunj.edu/admroot/adminsrv/hr/facultyhandbook2000/studentcodeofconduct.htm) .

A GRADE OF ZERO WILL BE ASSIGNED WHERE THERE IS INDICATION OF VIOLATION OF THIS POLICY