

Ply

## CHAMINADE UNIVERSITY OF HAWAII

## COURSE SYLLABUS

PHYSICS 180~~0~~ INTRODUCTION TO ASTRONOMY

Instructor: Dr. Jack F. McMillan  
Class Location: Pearl Harbor, Bldg 679  
Class Hours: MW 4:45 - 6:50 PM , 7:05 - 9:10 PM (Lab)  
Office Hours: TBA  
Phone: 536-5496  
e-mail: JMcmi24918@aol.com

Text: Astronomy Today, Second Edition  
Chaisson, Eric and McMillan, Steven; 1997, Prentice  
Hall Publishing Co.

## I. Course Goals:

This course is designed to provide the student with an understanding of modern astronomical principles and scientific methods. The course will examine the current body of knowledge in astronomy with an emphasis on recent data provided by satellite missions. Also, the course will introduce the student to the Internet via astronomy-related websites.

## II. Course Objectives:

1. To develop an understanding of the historical and present role of astronomy in society.
2. To develop an understanding and appreciation of basic science.
3. To be able to define Astronomy and know what astronomers do.
4. To be able to define and use astronomical terminology.
5. Understand the importance of astronomy in everyday life.
6. To learn to distinguish science from popular pseudoscience.

## III. Course Requirements:

1. Homework. There will be weekly assignments due the week worth 10 points each.
2. Examinations. There will be four tests worth 100 points each.
3. Lab Reports. There will be 10 labs with reports due the following lab session. Each report is worth 10

points.

4. Extra Credit: The instructor will suggest extra credit assignments. Typically, these help when one's grade is "borderline".

#### IV. Grades:

A = 90 - 100 %	450 - 500 points
B = 80 - 89 %	400 - 449 points
C = 70 - 79 %	350 - 399 points
D = 60 - 69 %	300 - 340 points
F = Below 60 %	000 - 299 points

#### V. Topics:

	Chapter
Charting The Heavens	1
The Copernican Revolution	2
Radiation	3
Exam 1.	
The Solar System	6
The Earth	7
The Terrestrial Planets	8,9,10
The Jovian Planets	11,12,13
Exam 2.	
The Sun	16
Measuring the Stars	17
Stellar Fomation, Stellar Evolution	19,20
Stellar Explosions, Neutron Stars,Black Holes and Black Holes	21,22
Exam 3.	
The Milky Way Galaxy	23
Normal Galaxies	24
Cosmology	26
The Early Universe	27
Exam 4.	

## Tentative Lab Schedule

### Physics 180L - Introduction to Astronomy

- Lab 1 Meet the Constellations
  
- Lab 2 Telescope Observation (Main Campus)  
Bring a telescope or binoculars!
  
- Lab 3 Lenses and Mirrors
  
- Lab 4 Diffraction gratings
  
- Lab 5 Telescope Observation (location tentative)  
Bring telescope or binoculars!
  
- Lab 6 Spectroscopy and Starlight
  
- Lab 7 Trip to Bishop Planetarium (hopefully!)
  
- Lab 8 Measuring Gravity I - The Incline
  
- Lab 9 Measuring Gravity II - The Pendulum
  
- Lab 10 Trip to LCC Observatory (hopefully)