

Physics 106
Astronomy
Spring Evening Term, 2013

Prerequisites: MAT130, or a working knowledge of algebra

Instructor: Charles Benesh

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Office Hours: to be announced

Grading:
40% - 3 Exams
20% - Final Exam
20% - Weekly Homework and Quizzes
20% - Weekly Laboratory

Text: *Astronomy Today*, 7th Edition by Chaisson and McMillan
with *MasteringAstronomy*(www.masteringastronomy.com)

- **Lecture Attendance:** Regular attendance in class is both expected and recommended. Generally, quizzes are only given when attendance falls below 80%. Therefore, the day you don't show up is more likely to have a quiz.....
- **Quizzes:** I reserve the right to give unannounced in class quizzes which will count towards the homework portion of your grade. No makeup quizzes will be given.
- **Homework:** Each week there will be a homework assignment. Assignments are posted on the course web page and on the *MasteringAstronomy* website. You will be sent a reminder via email on Friday(usually) when a

new assignment is posted. In most instances, the assignment will be due on Tuesday(11 days later.)

On a few occasions there may be additional online activities assigned.

- **Laboratory:**There will be a total of twelve labs for this course. With two exceptions, each week's lab will be conducted in two parts, during the second "half" of class. In order to complete the lab,*you must be present on Tuesday when the lab begins. Students will not be allowed to begin the lab on Thursday. There will be no opportunity to makeup missed labs.* Lab reports are due on Thurssday one week after completion of the lab.

On one occasion we will go out and observe the sky using the College's small telescopes. Weather permitting, this will be done early in the semester when it will be sufficiently dark during class hours. As the semester progresses, it gets dark later, which means that you may be required to stay later than usual to complete this activity.

You are also be required to take a "field trip" up the street to the Museum of Arts and Sciences to see the planetarium and telescopes they have there.

Class Schedule - Physics 106

Jan	17	The Birth of Astronomy - NO LAB READ: Chapter 1
	22	Getting Around the Sky - Celestial Coordinates
	24	Phases and Eclipses, Parallax Lab 1: Planetarium Visit READ: Chapter 1
Jan	29	Geocentrism vs. Heliocentrism Lab 2a: Celestial Sphere
	31	Galileo, Kepler, and Newton Lab 2b: Celestial Sphere READ: Chapter 2
Feb	5	Newton II Lab 3a: Parallax
	7	Light Lab 3b: Parallax READ: Chapter 3
Feb	12	Interference and Diffraction Lab 4a: Celestial Scavenger Hunt(Backup Date)
Feb	14	Exam I - Chapters 1-3 Lab 4b: Celestial Scavenger Hunt(Backup Date) READ: Chapter 4
Feb	19	Black-Body Radiation Lab 5a: Newton's Laws
	21	Telescopes Lab 5b: Newton's Laws READ: Chapter 5
Feb	26	Atomic Spectroscopy I Lab 6a: Light and Waves
	28	Atomic Spectroscopy II Lab 6b: Light and Waves READ: Chapters 4& 5

Mar 5	The Solar System I - The Regular Cast
	Lab 7a: Optics
7	Exam II
	Lab 7b: Optics
	READ: Chapters 4 & 5
Mar 11-15	SPRING BREAK - NO CLASS
Mar 19	The Solar System II - Guest Stars
	Lab 4a: Celestial Scavenger Hunt(Backup Date)
Mar 21	Earth I
	Lab 4b: Celestial Scavenger Hunt(Backup Date)
	Read Chapter 5 & 6
Mar 26	Earth II
	Lab 8a: Sizing Things Up
28	Earth III
	Lab 8b: Sizing Things Up
	READ: Chapter 7
Apr 2	Mercury
	Lab 9a: Rotation of Mercury
4	Venus
	Lab 9b: Rotation of Mercury
	READ: Chapter 8
Apr 9	Mars
	Lab 10a: Astrometry of Asteroids
11	Extra-Terrestrial Life
	Lab 10b: Astrometry of Asteroids
	READ: Chapters 9 & 10
Apr 16	Jupiter - The Big One
	Lab 4a: Celestial Scavenger Hunt(Backup Date)
18	Exam III
	Lab 4b: Celestial Scavenger Hunt(Backup Date)
	READ: Chapters 11& 12

Apr 23	Saturn
25	Lab 11a: Moons of Jupiter Uranus, Neptune, and Pluto Lab 11b : Moons of Jupiter
Apr 30	The Sun's Surface NO LAB
May 7	Final Exam - 5:30 PM