

Syllabus

Meeting times:	Monday—Thursday 10:00—11:45 am
Room:	PA216
Office Hours:	(In PA-215) M,W 12:00-1:00 pm, by appointment, or stop by PA 228
Instructor:	Phil Rosenfield
Office:	PA-228
Contact:	Email: philrose@sciences.sdsu.edu (best bet) Office phone: 619.594.1335
Website:	http://www-rohan.sdsu.edu/~rosenfie/astr101
Text:	<i>The Essential Cosmic Perspective</i> (4th edition) by Bennett, Donahue, Scheider, & Voit (available at the bookstore and in the reserve book room)
Materials:	Notebook, calculator, access to a computer is necessary outside of class.
Prerequisites:	Interest

No scientific or mathematical background is assumed, but critical thinking will be used and sharpened.

Introduction

How would humans react if the stars we saw at night came out only once every 10 years? How do we know that Earth is a planet, or even that it is spherical? How can you prove that the Sun is a star like any other we see at night? What is dark matter?

In this class, you will be introduced to the science of astronomy. The same laws of nature that keep us on the ground, attach magnets to our refrigerators, and bring light to our homes seem to exist everywhere in the Universe. We will learn how stars are thought to form, how we can observe the life histories of galaxies, how astronomers know the fate of our Universe, and much more.

My Goals

This is a “general education” class, I interpret that to mean “teach science through astronomy.” Below is a list of what I’d like you to leave this course knowing.

1. Science is not a collection of facts, but a process through which we try to understand our Universe
2. Anyone can understand our Universe through science
3. We are part of the Universe and learning about it can affect our personal worldviews and help us understand our origins
4. This course is only the beginning of your lifelong learning of astronomy

My Expectations

I expect each student will:

1. Actively engage in daily learning activities
2. Carefully study the text
3. Ask questions and come to office hours often
4. Come to class ready to learn

Things you will be graded on

Homework: There will be nine homework assignments to help you use the knowledge you have gained. When you work on the homework, you are studying for the exam, and solidifying your understanding of the material. Try to see how much of it you can do with out looking at your notes or the textbook.

All homework must look professional: Clean white paper without torn edges, stapled, and preferably, all text typed. If you don't type the text, be sure you write as neatly as possible. *Messy work won't be graded.*

Exams: There will be two exams, a midterm and a final. The final exam will only include topics covered after the midterm.

How you will be graded

No curves, no competition, its in your best interest to help each other learn astronomy

Homework	40%	120 pts
Exam 1 (June 12)	30%	90 pts
Exam 2 (July 5)	30%	90 pts
<i>Total</i>	<i>100%</i>	<i>300 pts</i>

This means that each point you earn is equivalent no matter which way you earn it.

A	100. - 93%	C	76.5 - 73%
A-	92.5 - 90%	C-	72.5 - 70%*
B+	89.5 - 87%	D+	69.5 - 67%
B	86.5 - 83%	D	66.5 - 63%
B-	82.5 - 80%	D-	62.5 - 60%
C+	79.5 - 77%	F	59.5 - 0%

If you divide your point total by three, you will have your total grade percentage.

**For CR/NC students: A grade of "Credit" is awarded for work equivalent to all grades which earn 2.0 or more grade points (A through C). "No Credit" is awarded for work equivalent to all grades which earn less than 2.0 grade points (C - through F). - SDSU General Catalogue*

Things you won't be graded on

In-Class Assignments:

Each class will have something turned in. This could be a quiz, a short written essay, or group work done in class. Our class will not be a typical lecture, we will often break for group exercises.

Observing Nights: Most students think they will be learning about constellations when they take an astronomy class, and usually that doesn't happen. Each Wednesday (as long as its clear outside) we'll meet on the roof of the PA building to learn about the summer night sky and use the telescopes. Each meeting starts 30 minutes after sunset. These are completely optional, friends and family are welcome.

Field Trip: There will be one (maybe two) optional field trip(s) to the Mount Laguna Observatory. This trip is only for SDSU students, details will be announced in class.

Tentative Schedule

This is the broad overview of this class, specific readings and homework assignments will be handed out each week.

Week 1: May 24–31

Text Book Chapters 1-3

Topics Covered:

I. Our view from Earth, II. Seasons, III. Lunar Phases, IV. Planetary Motions, V. History of Astronomy from 3000 BCE to 1700 CE

Week 2: June 4-7

Text Book Chapters 4 & 5

Topics Covered:

I. Physical theories to explain astronomical processes, II. The nature of light, III. The nature of matter

Week 3: June 11-14

Text Book Chapters 6-9

June 12: First exam covering chapters 1-5

Topic Covered:

Our Solar System

Week 4: June 18-21

Text Book Chapters 10-13

Topics Covered:

I. Stars: Formation, evolution, and destruction

Week 5: June 25-28

Text Book Chapters 14-17

Topics Covered:

I. Galaxies, II. The origin and fate of our Universe

Week 6: July 2-5

Text Book Chapter 18

July 5: Second exam covering chapters 6-17

Topics Covered:

Life in the Universe

Important Things That Need to be in a Syllabus

Make-up exams: Exams can only be rescheduled prior to the exam date and only in extenuating circumstances.

Late Policy: No late homework will be graded

Extra Credit: There may be extra credit questions on homework assignments or exams. There will be no other chance of obtaining extra credit

Plagiarism: Please do your own work! Any cheating, plagiarism, or improper collaboration will be reported to the Judicial Committee. Any plagiarized, cheated, or improperly collaborated work submitted will receive a zero. Any person involved with such a submission may also automatically fail the course. Simply put: **Do not turn in anything that is not from your own mind without giving proper credit**