

## Course Description

Elementary Astronomy is an introductory course in the fundamental workings of the Universe. Course topics include the historical relevance of astronomy; celestial navigation and observation techniques; fundamental laws of the universe; the formation of the solar system, stars, and galaxies; and discussion of cosmology and the Big Bang. Emphasis is placed on the modern science of astronomy, including new discoveries from the latest research. **Prerequisites:** Enthusiasm! (and basic high school math)

## General Information

Class Times	LL-129, 11:30-12:20 AM M W F
Required Texts	The Cosmic Perspective, 5th Ed., Bennett et al., ISBN 0-321-50618-9 and Course Materials
Instructor	John Armstrong
Office Hours	SL 205, 10:30 AM - 12:30 PM, T/TH, or by appointment
Email	<a href="mailto:jcarmstrong@weber.edu">jcarmstrong@weber.edu</a>
Web	<a href="http://www.weber.edu/jcarmstrong">http://www.weber.edu/jcarmstrong</a>
Phone	801.626.6215

## Course Goals

Welcome to Elementary Astronomy. In this class, we will deal with the cutting edge of the science of astronomy. We will discuss how the stars and planets move in the sky, and we will talk about constellations and how to find your way home if lost in the woods at night. But we'll also talk about exploding stars, colliding galaxies, the formation of planets, and the state of life in the universe. By the end of this class, you will, if nothing else, leave with an overwhelming sense of the size and scope of the universe.

It is my hope that you'll get some sense of the scale of the Universe, and the events that unfold within it. As such, after this course you should gain:

- An understanding of the scale of the solar system, the milky way galaxy, and the universe.
- Knowledge of the tools and techniques astronomers use to probe the nature of the universe.
- A sense of the nature of life in the Universe and its place within it.
- An ability to examine the universe from a scientific perspective.

## Assignments

Weekly assignments are due at 10:00 AM on Wednesday when the next homework is assigned. Scores for late submissions reduced by 20% for each day late. All of the homework in this class will be performed online, using the Mastering Astronomy Website:

<http://www.masteringastronomy.com>.

This course will be using the Mastering Astronomy web resources supplied with your textbook. If you purchased a new textbook, your book includes a login code for the web site. Simply select our textbook **Cosmic Perspective 5th Edition** and register to log on. If you purchased a used textbook, you can purchase a subscription with a credit card on the web site. This is required for the course, as your Mastering Astronomy assignments will be recorded under your name in the online gradebook. The name of your course is:

**ARMSTRONGPHYS1040S11.**

You will need this to register for our course on line.

## The In-Class Activities

We will also be conducting a number of in-class activities throughout the semester. All of these activities and materials are supplied in class. These will give you hands-on experience with difficult concepts, and, in general, are a lot of fun. Attendance is mandatory for credit. You can't make up activities, but I will be 'dropping' one activity during the course, so if you miss one, don't worry about it.

## Quizzes and Exams

There will be three, equally weighted exams during the course. These serve as a measure of your 'retained' knowledge and will help you (and me) keep tabs on your progress. If you must miss an exam, please make arrangements **in advance**. Makeup exams will not be given except under the most extreme circumstances. Please put the exams on your calendar now. All exams will be held in the College of Science testing center.

## Grading Policy

The course grading philosophy assumes that you will learn the most in the class from actually doing astronomy, either through homework assignments or in-class assignments. Therefore, the course grade is weighted towards the assignment rather than the exam end of things. 55% of your course grade comes from the assignments and activities. The other 45% comes from the exams.

Assignments	35%
In-Class Activities	20%
Exams (3 at 15% each)	45%

## Attendance Policy

I will not be taking attendance in class, but much of your grade relies on regular attendance. I highly recommend you attend class all the time! We plan on having a lot of fun, and using our spiffy new projector, so you really wouldn't want to be anywhere else, would you?

## Expectations and Responsibilities

I want to stress upfront that this is a quantitative science course. With that in mind, we will be doing some math. Some of your assignments will require you to employ some mathematical skills, which I will help you refresh/acquire in this course. I expect you to give yourself adequate time to complete the assignments and to put a good faith effort into all of your collaborative work. You should expect me to provide you with as much support as humanly possible, including technical/psychological math support and general sympathy. That said, starting the assignment on the day it is due is an excellent way to dissolve the sympathy part! If you give me enough lead time to help, I will make sure you get it. My office hours are posted, and I can be available at other times if necessary. I am here to make sure you get as much out of this course as you possibly can.

## Academic Integrity

Regarding academic integrity, I will enforce policies as laid down in Section IV:D of the Student Responsibilities outlined in the Student Code. Specifically, no cheating or other forms of academic dishonesty will be tolerated. The first instance of cheating will result in a zero on that assignment. The second instance will result in failing the class. You will be working in groups occasionally, however, so you will be required to distinguish the difference between collaboration and cheating. When in doubt, make sure to give credit where credit is due.

## Special Accommodations

Any students requiring accommodations or services due to a disability must contact Services for Students with Disabilities (SSD) in room 181 of the Student Service Center. SSD can also arrange to provide course materials (including this syllabus) in alternative formats if necessary.