Introduction to Astronomy

ASTR 1110/1110H
Fall 2021

Contact Information

Instructor: Prof. Inseok Song

Office: Physics Room 220

Office Hours: One hour after Tue/Thu class (or by an email appointment)

E-Mail Address: song@uga.edu

Zoom meeting ID: https://zoom.us/my/isong [need to use UGA MyID to join]

Preferred communication method is email.

Meeting Time and Room

Tue/Thu 2:20PM - 3:35PM,

Room 221 in the Physics Building

Course Description

This course is to introduce Astronomy for majors and honors students. We will learn about (1) the history of astronomy, (2) telescopes and astronomical observations, (3) Solar System objects, and (4) the origin and evolution of the Solar System. We will also learn about the recent advance in the discovery of exoplanetary systems. I will try to minimize the need for you to memorize minuscule details by focusing on the big questions. By the end of this semester, you can place the human being in the cosmological context and appreciate the precious nature of our planet, Earth, in the vast Universe.

Course Goals

- Know the difference b/w science and pseudo-science
- Understand features of the night sky
- Can explain radiation and astronomical spectra
- Can classify planet groups in the Solar System and describe characteristics of each group

- Can explain key features of the Sun
- Can explain the origin and evolution of the Solar System
- Can explain various exoplanet detection methods

Textbook

"Astronomy" from OpenStax : https://openstax.org/details/books/astronomy

This is a no-cost textbook and you can download a PDF version from here (154MB).

Prerequisite

None

Course Outline

Tentative schedule

- Chapter 1: Science and the Universe
- Chapter 2. Observing the Sky (selected parts)
- Chapter 3. Orbits and Gravity
- Chapter 4. Earth, Moon, and Sky (selected parts)
- Chapter 5. Radiation and Spectra
- Chapter 6. Astronomical Instruments (selected parts)
- Chapter 7. Introduction to the Solar System
- Chapter 8. Earth as a Planet (selected parts)
- Chapter 9. Cratered Worlds (The Moon and Mercury)
- Chapter 10. Earthlike Planets (Venus and Mars)
- Chapter 11. Giant Planets
- Chapter 12. Rings, Moons, and Pluto (selected sections)
- Chapter 13. Comets and Asteroids
- Chapter 14. Meteors, Meteorites, Origin of Solar System (selected sections)
- Chapter 15. The Sun
- Chapter 16. The Sun
- Chapter 21. The Birth of Stars and the Discovery of Planets outside the Solar System (selected sections)

Evaluation and Grading

1. Exams (2 exams [mid-term + final] or 3 exams [exam1, exam2, and final], TBD) – up to 70% total
2. Online quizzes (through eLC) - 20%
3. Homework (~5) - 10%

Your final course score will be scientifically rounded (i.e., $89.5 \rightarrow 90, 89.4 \rightarrow 89$), and using the final rounded score, letter grades with +/- are assigned as follows.

	87 ⩽ B+ < 90	77 ⩽ C+ < 80	60 ⩽ D < 70	F < 60
A ⩾ 90	83 ⩽ B0 < 87	73 ⩽ C0 < 77		
	80 ⩽ B− < 83	70 ⩽ C− < 73		

Attendance Policy/Expectations of Participation

Class attendance will not be tracked. However, several important announcements will only be made during the class and it is your responsibility to keep up with the class.

Quizzes and Exams

Quizzes are due in **1 week** from the assignment.

Quizzes will be administered via eLC and exams will be given in the classroom. Once the deadline is passed, I will not reopen past quiz(zes) without a legitimate excuse.

1. Quizzes have limited trials (max number of trials is 5). Many quiz questions will be repeated in exams.
2. There is no make-up test! To make up a missed test, you need to provide a proof such as Doctor's Note.
3. The final exam is accumulative (covering all topics mentioned in the class).

Lecture Notes

Lecture notes will be made available through eLC. Although I use eLC as the front end, I keep individual lecture notes in Google Drive. Occasionally, when you logged in multiple google accounts, you may encounter a message saying that you need a permission to access lecture notes. You do not need a special permission from me to access lecture notes. When you see such a message, do either one of the followings: (1) log out from all your google accounts and retry or (2) use a "incognito" browser mode (in chrome) or other equivalent.

Disability Statement

UGA is committed to the success of all learners, and we strive to create an inclusive and accessible online environment. In collaboration with the Disability Resource Center (http://drc.uga.edu/), we work with students who have documented disabilities to access reasonable accommodations and academic supports.

For more information or to speak with a Disability coordinator, please call the Disability Resource Center at (706)542-8719, TTY only phone (706) 542-8778.

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Technical Issues

For TECHNICAL PROBLEMS with eLC or other issues, contact: UGA's Enterprise Information Technology Services (EITS) Help Desk at 706-542-3106, oremail at helpdesk@uga.edu. You can also submit at a helpdesk request online at https://eits.uga.edu/support/request.

Additionally, there will be a forum in the online course for students to post any issues or concerns. (*Including a forum for technical issues can be a great way to help your students and encourage them to help each other.)*

Academic Honesty

Academic honesty is very important, and I take it very seriously. When I find any potential academic dishonesty issue, I will report it to the University.