

ASTR 204: Introduction to Astronomy and Astrophysics

Instructor: Dr. Evan Rich
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Pronouns: He/Him
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CLASS

Lecture: 2:00 - 3:15 PM JH-247 T/Th

Required Resources

- University Physics with Modern Physics by Young and Freedman
- [Astronomy by Openstax](#)

STUDENT HOURS

Monday 1:30-3:30 PM 244F JH

Wednesday 9-11 AM 244F JH

Thursday 3:30-5:30 Union

Friday 2-4 PM Union

Or Scheduled Times By Appointment

Email: erich3@unl.edu)

[Astronomy Resource Center](#)

Course Description

Survey of the sun, the solar system, stellar properties, stellar systems, interstellar matter, galaxies, and cosmology.

Prerequisites: PHYS 211/211H; MATH 107/107H; parallel ASTR 224

Missed Class Policy and Illness

If you are sick, **do not come to class**. Be kind and mindful of your fellow classmates. You will be expected to get the lecture notes from a classmate and discuss with the instructor on topics you don't understand at Student Hours or at the physics resource center (see above). If you will miss class/recitation for a sporting event, holiday, or life event please notify the instructor as soon as possible to organize an alternative schedule to make up for missed work.

Learning Objectives

By the end of this course, you should be able to:

- Solve algebra- and calculus-based astronomy word problems
- Engage in astronomy citizen science activities
- Read an astronomy article written for the broad public and think critically about the relevance of the discovery
- Explain major astronomy discoveries to peers and dissect how the scientific method was applied
- Engage in thoughtful discussions on the relationship between culture and astronomy

Assessments

Exams: There will be two exams during the semester. All exams will be closed books. You are allowed one single-sided sheet of paper (8.5in x 11in) to write any notes/equations for the exam. There will not be a comprehensive final exam. Exam #1 will be October 3rd and Exam #2 will be November 28th.

Quizzes: There will be quizzes every other week. The quizzes will give you and me a sense of how well you grasp the material. The quizzes are cumulative to the extent that material builds in the course but will focus on material since the previous quiz. All quizzes will be taken in class and will be closed books, closed notes. Your lowest quiz score will be dropped, see the automatic accommodations section for further details.

Project #1: You will pick a recent and major scientific discovery that obtained a significant amount of press coverage and write a two-page report of the discovery. Your report should answer the following questions:

- Who performed the scientific study?
- How was the scientific method applied in this study/project?
- What was the original goal of the scientific study?
- What new thing was learned as a result of the study?

The report will need to be single-spaced, contain in-text citations and references, be concisely worded, and be aimed at an audience of your peers. A person reading your report should be able to understand the study and its context without having read any previous articles on the topic. A rubric will for the project will be provided on Canvas when the project is assigned. Project #1 is due October 24th.

Project #2: You and a partner will choose an astronomy topic that we did not learn about in detail in class. You will learn about the topic using the resources that you have gained while taking the course. You and your partner will then teach a lesson to the class, teaching your peers about the topic you have chosen. Your audience will be your peers and the level you are teaching at must match with their experience and knowledge. A rubric will for the project will be provided on Canvas closer to the assignment of the project. Presentations will be due during the finals period. Project #2 is due Tuesday December 12th.

Grades

Your final grade will be determined by:

- 5% Community Engagement
- 15% Homework
- 15% Quizzes
- 35% Exams
- 15% Project #1
- 15% Project #2

Grades for individual assignments will be posted in the Canvas gradebook. It is good practice to check the gradebook regularly to monitor your progress and to verify accuracy. I will compute your final grades at the end of the term. If you are curious, you can use the weighted percentages above.

What can you expect from me?

I will organize class lectures, activities, and lead discussions within class. I will encourage the exploration of the topics within lecture time. I will be available for questions via student hours and email to help with homework, discussion on class topics, and clarify hard-to-understand concepts. I will start and end class promptly and communicate clearly via Canvas, email, and class announcements.

What do I need to succeed in ASTR 204

Complete all assigned readings, activities, and homework before classes. **Be prepared to be active and participate in class.** Ask questions when you do not understand a topic or technique. If you foresee a conflict because of an athletic or personal event, please contact me as soon as you are aware of the conflict. I expect you to check your email daily in case there is course-related correspondence.

Automatic Class Accommodations:

- I will drop your lowest Homework grade. This is done automatically.
- I will drop your lowest Quiz grade. This is done automatically.
- I will drop 3 of your lowest in-class participation grades. This is done automatically.

Course Policies and Procedures

University course policies and procedures can be found here: <https://go.unl.edu/coursepolicies>

Academic Dishonesty

All forms of academic dishonesty including cheating, fabrication and falsification, plagiarism, misrepresentation to avoid academic work etc. will be dealt according to the rules of [Disciplinary Procedures of the Student Code of Conduct of UNL](#).

PLEASE NOTE that the use of **Chegg and ChatGPT** (or similar websites) to complete assigned work (including but not limited to homework and projects), either in whole or in part, is considered academic dishonesty. Using ChatGPT (or similar websites) to cheat may result in a course grade of F and will be reported to the Office of Student Conduct & Community Standards.

You are encouraged to work with classmates on homework, and projects. However, communicating with anyone besides the instructor, online or in person, whether they are enrolled in the course or not, regarding exams and quizzes is academic dishonesty. The instructor reserves the right to conduct interviews or administer oral exams in the event that I suspect a student has cheated.

Disability Accommodations

The University strives to make all learning experiences as accessible as possible. If you anticipate or experience barriers based on your disability (including mental health, chronic or temporary medical conditions), please let your instructor know immediately so that you can discuss options privately. To establish reasonable accommodations, your instructor may request that you register with Services for Students with Disabilities. If you are eligible for services and register with the office, make arrangements with your instructor as soon as possible to discuss your accommodations so they can be implemented in a timely manner. SSD is located in 117 Louise Pound Hall and can be reached at 402-472-3787.

If you are a student on the UNO campus, you may register for accommodations at the Accessibility Services Center, which is located at 104 H&K Building and can be reached by calling 402-554-2872.