

Astronomy 101 Syllabus

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OH: By Appointment
Classroom: Tuesday 5-6:15 pm,
VABS 119 and online
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Welcome to Astronomy 101! Astronomy is the study of objects in space, but it can give us a lot of information about Earth as well, including new Physics, information about how the Earth was formed, and even help us locate ourselves in time and space! Astronomy 101 is the introductory Astronomy course, complemented by its lab section Astronomy 101L. Please note I reserve the right to change this syllabus if I see it fit to do so throughout the semester. (**pre- or co-requisite: None**)

Textbook

The textbook for the course, *Astronomy* from OpenStax, is free! However, it's also crucial to the course, so be sure to download it from <https://openstax.org/details/books/astronomy> with time to spare. Regular weekly readings and homework will be assigned from the textbook, and homework, quizzes, and tests will derive from text and lecture material.

Objectives

Topics to look forward to include a brief history of Astronomy, an analysis of the behavior of stars and planets as seen from Earth, applying the scientific method, understanding the scales of the universe, how to use tools like telescopes and spectrometers to observe and quantify the stars, a study of the formation and properties of objects in our solar system, an overview of gravity and electromagnetism, methods of discovery of planets around stars, the structure and activity of the Sun and its contextualization with other stars, the life cycle of a star, the structure of the Milky Way and its comparison to other galaxies, the Big Bang theory in the context of recent observations, and the possibility of extraterrestrial life in the universe.

Students with Disabilities

Qualified students with disabilities needing appropriate academic adjustments should contact me as soon as possible to ensure your needs are met. Handouts are available in alternative accessible formats upon request.

Grading

The grading is outlined below:

Homework	25%	97-100	A+
Q&A	10%	92-97	A
Projects	20%	89-92	A-
Quizzes	15%	85-89	B
Exams	30%	75-85	C
		65-75	D
		0-75	F

Quizzes

The weekly pre-lecture quizzes consist of a collection of Review Questions of the chapter(s) covered in the previous lecture; these are included at the end of each chapter. Be sure to read the covered chapters and review the Review Questions so that you come to class confident to answer them on the quiz.

Homework

Homework questions will be posted on Blackboard following each lecture, and are due the night before the following lecture (11:59 pm Monday nights). Late homework is not accepted. Some homework problems will derive from Thought Questions and Figuring For Yourself questions in the back of the chapters.

Q&A

Before midnight after each lecture, post at least one question on a topic that you didn't quite understand to the appropriate Blackboard forum. Then, before the next lecture, answer a question that someone else posted in the forum. Doing this every week with appropriate content will ensure full points in this category.

Projects

There will be two projects in the semester dealing with practical Astronomy—as Astronomy literally depends on the alignment of the stars, you must perform these in time, no procrastination!

Exams

This includes any in-class exams and the final exam.

Attendance/Hybrid Course

This is a hybrid course, meaning 25-75% of the content will be online. Astronomy 101 is a 2-hour/week course; one hour is in a physical classroom and the other will be a live stream. The physical hour will consist of lecture of new material, while the stream will address questions in the Q&A forum and focus on a more practical, example-based approach to the material. Both hours are necessary to ensure success in the class, and attendance is expected from all students in both the physical and online sessions.

Title IX

UNM faculty, Teaching Assistants, and Graduate Assistants are considered “reponsible employees” by the Department of Education.¹ This designation requires that any report of gender discrimination which includes sexual harassment, sexual misconduct, and sexual violence made to a faculty member, TA, or GA must be reported to the Title IX Coordinator at the Office of Equal Opportunity (oeo.unm.edu). For more information on the campus policy regarding sexual misconduct, see: <https://policy.unm.edu/university-policies/2000/2740.html>.

¹See p. 15 - <http://www2.ed.gov/about/offices/list/ocr/docs/qa-201404-title-ix.pdf>