









General Astronomy ASTR 2110

Instructor Info —

-  Prof. Diana Dragomir
-  PAIS 3226
-  exoplanets.unm.edu
-  dragomir@unm.edu

Course Info —

-  Math 1230 or 1250. Physics 1200 or higher. We will learn some physics concepts and make use of high-school level algebra and trigonometry, but will not use calculus.
-  Tue & Thu
-  11:00am - 12:15pm
-  Regener 114

Office Hours —

-  Tue: 2:00 - 3:00pm — or by appointment
-  PAIS 3226

TA Info —

-  Tousif Reza
-  Monday, 3-4pm
-  PAIS Main Lobby
-  tousif@unm.edu

Course Overview

Astronomy 2110 is a general astronomy course at a greater level of detail than is covered in Astronomy 101. ASTR 2110 and 2115 are also the first required ASTR classes for BS Astrophysics majors. This spring course will begin with a review of positional astronomy, celestial motion, and the electromagnetic spectrum. We will then explore the Solar System from its inner to its outer regions, what we know so far about planets around other stars (exoplanets), and life elsewhere. We will use math and physics as we explore the Universe.

About Me

I am an observational astronomer whose focus is on exoplanets. I aim to measure the properties of exoplanets (particularly, but not exclusively, sub-Jovian exoplanets), and how these properties correlate to the planets' formation and evolution. Therefore I also have a keen interest in planetary science, and I look forward to sharing that with you.

Material

Required Text

Universe, Freedman, Geller and Kaufmann, 11th edition. University Science Books. 2019. (ISBN: 9781319039448, eBook ISBN: 9781319227975)

Required Other Material

iClicker or iClicker app.

Grading Scheme

15%	Class Participation
25%	Homework Assignments
20%	In-class Test 1
20%	In-class Test 2
20%	Final Project

Note: If you take this class "Credit/No Credit", according to university policy, your final grade must be a "C" or better in order to receive credit.

Class Participation

Every class there will be one or more multiple choice questions that you will answer with iClicker. These questions are for both you and I to gauge how well specific concepts taught in that class were understood, and will count for a third of the participation grade (5% of the final grade). You do not need to answer correctly in order to obtain the participation points, but you do need to answer the questions in *at least 20 classes* for full credit. If you answer correctly, you will obtain extra credit that will allow you to increase your final grade by up to 5%.

The remaining portion of the participation grade will come from your participation in in-class activities and worksheets. There will be activities/worksheets approximately once a week. For some I will ask you to work individually, for others you will work in pairs or small groups. I will not record grades for these activities and worksheets, so for your grade, it doesn't matter how you do. But I encourage you to do your best because it will help you (and I) determine how you are doing in the course so far. However, you must be present in class and participate in these problem solving sessions in order to get the participation points.

Homework Assignments

There will be ten homework assignments spread out over the course of the semester. They will be due every 1 - 1.5 weeks. They will be posted on the course webpage/UNM Learn. Homeworks are to be submitted online on UNM Learn using the appropriate link provided there. Credit for late homeworks will drop by 15% for every day late within a week, and no credit thereafter.

Final Project

The final project for the class will be a report on a scientific paper. The presentations will take place near the end of the semester (sometime in the last two weeks) and can be performed in powerpoint, keynote, google slides, or a similar presentation software. A choice of papers and detailed instructions will be provided at a later date via UNM Learn.

Learning Goals

Upon successful completion of this course, students should be able to:

- Construct physical models of astronomical objects to explain observations.
- Understand properties of (exo)planets, and their moons.
- Demonstrate an understanding of the modern theories about the origins, structure and evolution of the solar system.
- Apply the "scientific method" to the study of the Solar System and exoplanets.

Diversity and Inclusivity Statement

I consider this classroom to be a place where you will be treated with respect, and I welcome individuals of all ages, backgrounds, beliefs, ethnicities, genders, gender identities, gender expressions, national origins, religious affiliations, sexual orientations, ability - and other visible and non-visible differences. All members of this class are expected to contribute to a respectful, welcoming and inclusive environment for every other member of the class.

Citizenship and/or Immigration Status: All students are welcome in this class regardless of citizenship, residency, or immigration status. Your professor will respect your privacy if you choose to disclose your status. UNM as an institution has made a core commitment to the success of all our students, including members of our undocumented community. The Administration's welcome is found on our [website](#).

Title IX

A Note About Sexual Violence and Sexual Misconduct: As a UNM faculty member, I am required to inform the Title IX Coordinator at the [Office of Equal Opportunity](#) of any report I receive of gender discrimination which includes sexual harassment, sexual misconduct, and/or sexual violence. You can read the full [campus policy](#) regarding sexual misconduct. If you have experienced sexual violence or sexual misconduct, please ask a faculty or staff member for help or contact [LOBORESPECT](#).

Accommodations for Students with Disabilities

In accordance with University Policy 2310 and the Americans with Disabilities Act (ADA), academic accommodations may be made for any student who notifies the instructor of the need for an accommodation. It is imperative that you take the initiative to bring such needs to the instructor's attention, as I am not legally permitted to inquire. Students who may require assistance in emergency evacuations should contact the instructor as to the most appropriate procedures to follow. Contact [Accessibility Resource Center](#) at (505) 277-3506 for additional information.

If you need an accommodation based on how course requirement interact with the impact of a disability, you should contact me to arrange an appointment as soon as possible. At the appointment we can discuss the course format and requirements, anticipate the need for adjustments and explore potential accommodations. I rely on the [Accessibility Resource Center](#) for assistance in developing strategies and verifying accommodation needs. If you have not previously contacted them I encourage you to do so.

Academic Integrity

Each student is expected to maintain the highest standards of honesty and integrity in academic and professional matters. The University reserves the right to take disciplinary action, up to and including dismissal, against any student who is found guilty of academic dishonesty or otherwise fails to meet the standards. Any student judged to have engaged in academic dishonesty in course work may receive a reduced or failing grade for the work in question and/or for the course.

Academic dishonesty includes, but is not limited to, dishonesty in quizzes, tests, or assignments; claiming credit for work not done or done by others; hindering the academic work of other students; misrepresenting academic or professional qualifications within or without the University; and nondisclosure or misrepresentation in filling out applications or other University records.

UNM Administrative Mandate on Required Vaccinations

UNM requires COVID-19 vaccination and a booster for all students, faculty, and staff, or an approved exemption (see: UNM Administrative Mandate on Required Vaccinations). Proof of vaccination and booster, or a medical, religious, or online remote exemption, must be uploaded to the UNM vaccination verification site. Failure to provide this proof may result in a registration hold and/or disenrollment for students and disciplinary action for UNM employees.

Booster Requirement: Individuals who received their second dose of a Pfizer or Moderna vaccine on or before June 15, 2021, or their single dose of a Johnson & Johnson vaccine on or before October 15, 2021, must provide documentation of receipt of a booster dose no later than January 17, 2022.

Individuals who received their second dose of a Pfizer or Moderna vaccine after June 15, 2021 or who received their single dose of Johnson & Johnson after November 15, 2021 must provide documentation of receipt of a booster within four weeks of eligibility, according to the criteria provided by the FDA (6 months after completing an initial two-dose Moderna vaccine, 5 months after completing the Pfizer sequence, and 2 months after receiving a one-dose Johnson and Johnson vaccine).

International students: Consult with the Global Education Office.

Exemptions: Individuals who cannot yet obtain a booster due to illness should request a medical, religious, or online remote exemption (which may have an end date) and upload this to the vaccination verification site. Medical and religious exemptions validated in Fall 2021 (see your email confirmation) are also valid for Spring 2022 unless an end date was specified in the granting of a limited medical exemption. Students must apply for a remote online exemption every semester.

UNM Requirement on Masking in Indoor Spaces

All students, staff, and instructors are required to wear face masks in indoor classes, labs, studios and meetings on UNM campuses, see the masking requirement. Medical/health grade masks are the best protection against the omicron variant and these masks should be used, rather than cloth. Following the latest advice from scientific experts, UNM is asking employees to upgrade to a more protective type of mask ? a three-ply or better medical/health procedure mask.

Consequences of not wearing a mask properly

Students who do not wear a three-ply mask indoors on UNM campuses, or who do not wear a mask properly by covering nose and mouth, can expect to be asked to leave the classroom and to be dropped from a class if failure to wear a mask occurs more than once in that class. Students who do not wear a mask in classrooms and other indoor public spaces on UNM campuses are subject to disciplinary actions.

COVID-19 Symptoms and Positive Test Results

Please do not come to a UNM campus if you are experiencing symptoms of illness, or have received a positive COVID-19 test (even if you have no symptoms). Contact your instructors and let them know that you should not come to class due to symptoms or diagnosis. Students who need support addressing a health or personal event or crisis can find it at the Lobo Respect Advocacy Center.

Please check the [Bringing Back the Pack website](#) regularly for general UNM updates.