Astr 101L – Spring 2018 – Syllabus

Coordinator: Prof. Richard Rand (rjr@unm.edu),
Pre-/co-requisites: ASTR 101

TAs: Head TA Peter Sinclair (pmsinclair@unm.edu), Brandon Medina (branmedi@unm.edu), Kayla Mitchell (kmitchell3@unm.edu), Seth Bruzewski (bruzewskis@unm.edu)

Textbook: No textbook is required, however, if you have a text for ASTR 101, it may be useful. Another useful resource might be the free online introductory astronomy text available at https://openstax.org/details/astronomy

Office hours: by email appointment (Rand: 166 P and A bldg., NE corner of Lomas and Yale)

Lab homepage: http://physics.unm.edu/Courses/Rand/index.php

Goals of the lab:
The main goal of this lab is for students to discover how astronomers use physics and observations with telescopes to gain an understanding of how the universe works. To that end, you will learn many physics concepts as applied to astronomy, and follow the process of doing astronomical observations and measurements. These observations include ones that you will make, both with the naked eye and with a telescope. It is not the goal to provide a complete survey of all areas of astronomy – this is what the ASTR 101 lecture class is for. As such, the lab will not follow the lecture material exactly. The labs are generally computer-based and you will be working with a lab partner. There is a small amount of homework (see below).

Attendance:
Attendance in lab is mandatory. Each student is required to complete every lab assignment, and the labs may only be completed in class, except for the Observing Projects (see below). If you are working with a partner in class, only one of you will enter answers for the quizzes, but make sure that your partner is identified in the last quiz question.

If for any reason you cannot attend a lab, you may attend another lab section, as long as they are doing the lab you missed. To attend another lab section, email the TA of the section you want to attend (and cc your own TA) at least 24 hours in advance to ask permission. The TA needs to know which section you are in. Check the schedule and list of TAs on the course webpage (location of homepage shown above). The only other opportunity to make up labs is during Tuesday and Wednesday before Spring Break. See below for credit for make-ups. Please contact your TA well in advance to schedule a time to make up a lab or labs during those days. Do not allow yourself to have uncompleted labs at the end of the semester. As the end of the semester nears, there are too many other things to worry about. Please keep on track.

Requirements:
Please note that Astronomy 101L *is* a math-based course. **It is much more math-intensive than the lecture, and you will be doing many calculations.** You will be expected to know algebra and some geometry, and you will be making use of it in nearly every class. If you cannot solve the equation below for x, you will have a great deal of difficulty passing this class:

$$5x - 3 = 7$$

You will also be making many measurements of physical quantities. It is important to understand the units of each measurement, and to be able to convert between different units.

You will also be using math equations in physical contexts. For instance, you should know how to answer the following problems. If a car goes 5 miles in 10 minutes, what is its average speed in miles per hour? If a car travels at 10 miles per hour for 6 minutes, how many miles does it go?

Grades:
Grading is on the standard scale, e.g. 97%-100%=A+, 93%-97%=A, 90%-93%=A-, etc. There are fifteen labs in total. Lab 0 is the Observing Project and requires some explanation. You have three observing projects to do for this lab: Observing Projects 1, 2 and 3, with deadlines spread over the semester. There are also a few questions to answer for Lab 0 in class. Each lab carries 100 points, except Lab 0, which has 100 points for the in-class questions as well as 100 points each for each of the three actual projects. There is also one homework assignment associated with the Foundations lab that is worth 50 points. Thus there are **1850** points available. There is no extra credit. It will be a great challenge to pass this class without completing and turning in the observing projects, some of which require visiting the Campus Observatory. Please note that there may be nights when the Campus Observatory will not be open due to bad weather. All work will be done during class time or, for the observing projects, outside of class, with the exception of the Foundations lab, which has a pre-lab reading assignment and the post-lab homework assignment mentioned above.

Missing a lab or consistent lack of effort or consistent poor performance will also result in a half-grade deduction (e.g., A to A-). If at any point in the semester you have a question about a lab grade, your lab instructor will be happy to go over it with you. You may contact me if you still have questions after that.

It is up to you to understand what your grade is at any point in the class. If you are unsure, ask your TA.

Homepage: The URL at the top of this syllabus is for a class homepage that you can access from anywhere. This is in case you need information about the class or the Observing Projects when you are not in your lab.

Due Dates:
All in-class lab assignments are due at the end of class each day. **Check the schedule for the due dates of the Observing Projects.** If you are unable to upload your Observing Project, you can turn it in to your TA's mailbox in the Physics and Astronomy Department, NE corner of Lomas and Yale during regular business hours. Since Observing Projects 2 and 3 both typically require a visit to the Campus Observatory on a Friday night, **you are strongly encouraged to get the information you need for both projects by the deadline for Observing Project 2**. This will save you a second visit to the Observatory, which may not even be possible if the weather is cloudy.

Grading Disputes:
You must bring any questions about grading of a lab to your TA's attention within 10 days of receiving the grade. If you do not receive a grade for work that you did, you must inform your TA within 20 days of the date you submitted the work.

Make-ups and late policy:
If you miss a lab, **you can make it up by going to another section before your next lab** (i.e. within a week, see above). **Both your TA and the TA who runs the section you plan to attend need to be**

informed via email. The only other time to do make-ups is the make-up slots during the week before Spring Break. (see schedule). Labs made up within a week get 50% credit, unless you present a valid excuse. All make-up week labs get 50% credit. For the Observing Projects, you can also upload them or turn them in up to one week late for 50% credit. If you want to attend a make-up session email the TA at least 24 hours in advance to make the appointment.

UNM Academic Dishonesty Policy:
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.

Conduct:
UNM has strict guidelines for both student and TA conduct, which are outlined in the University catalogue. Both the students and the instructor are expected to adhere to these policies. In particular:

- **Please do not answer cell phones, texts, or tweets in the lab room!! If urgent,** Calls may be taken in the hallway so long as classes are not disturbed.
- **Drinks must be in a container with twist cap or other sealed top and kept on the floor or at the front of the room.** Food in the lab is not allowed without special permission from the instructor.

Students with Disabilities:

Qualified students with disabilities needing appropriate adjustments should contact their lab instructor or me as soon as possible to ensure that your needs are met in a timely manner. Handouts are available in alternative accessible formats on request.

If you feel that there are questions that your lab instructor has not answered adequately or you have concerns that have been not addressed, please feel free to contact me, the Lab supervisor: Prof. Rand (rjr@unm.edu) or the department lab coordinator, Mickey Odom (modom@unm.edu, 277-2751).

Title IX:
In an effort to meet obligations under Title IX, UNM faculty, Teaching Assistants, and Graduate Assistants are considered "responsible employees" by the Department of Education (see pg 15 - http://www2.ed.gov/about/offices/list/ocr/docs/qa-201404-title-ix.pdf). 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). If you want to retain anonymity, instead report the incident to other units on campus, namely Student Health and Counseling (SHAC), Counseling and Resource Center (CARS), a licensed medical practitioner on campus, or off campus to the Rape Crisis Center of Central New Mexico, or a sexual assault nurse examiner. If you report the incident to the LoboRESPECT advocacy center, Women's Resource Center, or the LGBTQ Resource Center, you

retain anonymity but an anonymous record is made for statistical purposes. See more information at https://policy.unm.edu/university-policies/2000/2740.html#_Toc414642678.