#### Lab Syllabus for Astronomy 110

URL: http://astronomy.nmsu.edu/feuilldk/a110/ M05: Wed 1:30 - 3:30 Bx 102

Lab Instructor: Diane Feuillet Office Hours: Tuesday 12 - 1 pm and Wednesday 12 - 1 pm Office: Astronomy 219 Phone: (575)-646-4914 Email: feuilldk@nmsu.edu

WARNING: We will do math in this class.

## Typical Lab Procedure

Required materials: A printout of the week's lab (which you are responsible for, available on course webpage) and the lab answer sheet (which I am responsible for). You must read the relevant lab each week before coming to lab.

- 1. As you enter the classroom:
  - Take a seat with your assigned lab group
  - Turn in any due assignments as you come in, before class begins
  - Wait for me to hand back graded assignments from weeks prior
  - Pay attention to my short intro lecture for information regarding the concepts in the lab, and any technical or mathematical difficulties presented which you may encounter
- 2. Using the lab manual and the lab answer sheet:
  - As a group, answer the questions as you work through each part of the lab, making sure to address all the aspects of the question
  - Finish the lab before the end of the period! You can't turn the lab in late!
  - The answer sheet is worth 65 points, the majority of the total lab grade
- 3. After you've completed the lab:
  - In at least 450 words, answer the questions listed under the *Summary* section at the end of each lab in the manual. This should be an essay, not a bulleted list.
  - Turn the summary in on Canvas by the start of the new lab (1 week later).
  - Get a bad grade? If you stop by my office hours and discuss how you could improve the summary I'll let you rewrite it for a new grade, possibly full credit if it's very good.
  - The summary is worth 35 points

#### Items of note:

- Attendance in lab is mandatory, and you will receive a zero for a lab if you are absent. If you want an absence excused, you'll have to bring me a note. If you know you will miss a lab, come talk to me ahead of time and we will find a make-up lab. I cannot help you if you don't come talk to me ahead of time.
- One full lab grade will be dropped from your score at the end of the semester, HOWEVER, this dropped grade cannot be a 0. You MUST attend every lab. Missed labs will not be dropped.
- Cell phones are not allowed in lab. You not receive credit for portions of the lab you did not contribute to. You must participate in all portions of the lab.

• Do not plagiarize! You may discuss the labs and questions with your peers but the lab summary must be in your own words. Plagiarism as defined by the Student Code of Conduct will not be tolerated. It is your responsibility to know NMSU student code of conduct

(http://www.nmsu.edu/Campus\_Life/vpsa/public\_html/SCOC/misconduct.html)

Do not copy material from any source including your classmates, books, the lab manual, or any website. If you want to reference or quote any material, include the source in some way.

Do not copy definitions or descriptions from Physics Classroom, HyperPhysics, Wikipedia, etc. I guarantee that if you do, at least 10 other students did as well and it will be exceedingly obvious. Any plagiarism will recieve an immediate zero and could result in expulsion.

### Campus Observatory

http://astronomy.nmsu.edu/undergraduate/110-campus-observatory/

There are several small observatories on campus, which you must visit a total of two times (once during each half of the semester). The observatory is open Monday and Wednesday from 9-10 pm, weather permitting, from Feb 1 to April 27. The last night of the first half is March 9.

During each visit you will observe a total of 4 features, 3 different astronomical objects as viewed through a telescope and 1 constellation viewed with the naked eye. For each feature, you must fill out an observing sheet, which are linked from the lab section website, and also at the end of the lab manual pdf. You must have each sheet stamped by the nearest TA. Each set of 4 observatory sheets is worth a full lab grade, 100 points. You will recieve 10 points of extra credit if you attend campus observatory during the first 2 open nights of each half.

The campus observatory webpage is updated for each night, so CHECK to see if it will be open before you go. You can also call (575) 646-6278 for updates on the observatory.

### ASK QUESTIONS

Ask lots of questions! I'm here to help you learn, so feel free to ask questions during or after lab; you can also attend my office hours or send me an email (feuilldk@nmsu.edu) if you need help.

#### **Discrinimation**

It is no less true in the hard sciences than in any other field that the discussion improves the more people with different backgrounds and dispositions are involved. In support of this, NMSU policy prohibits discrimination on the basis of age, ancestry, color, disability, gender identity, genetic information, national origin, race, religion, retaliation, serious medical condition, sex, sexual orientation, spousal affiliation and protected veterans status. Furthermore, Title IX prohibits sex discrimination to include sexual misconduct: sexual violence (sexual assault, rape), sexual harassment and retaliation.

For more information on discrimination issues, Title IX, Campus SaVE Act, NMSU Policy Chapter 3.25, NM-SUs complaint process, or to file a complaint contact: Gerard Nevarez, Title IX Coordinator Agustin Diaz, Title IX Deputy Coordinator Office of Institutional Equity (OIE) - OLoughlin House, 1130 University Avenue Phone: (575) 646-3635 E-mail: equity@nmsu.edu Website: http://www.nmsu.edu/-eeo/

Week of	Lab Manual #	Lab Title
Jan 25	1	Introduction
Feb 01	10	The Power of Light: Understanding Spectroscopy
Feb 08	6	Kepler's Laws
$Feb \ 15$	11	Our Sun
Feb $22$	Handout	Stellar Evolution: Part I
Feb 29	Handout	Stellar Evolution: Part II
Mar 07	9	Optics
Mar 09	End 1st half	Observation Sheets
Mar 14	SPRING	BREAK
Mar 21	4	The Impacts of Comets and Asteroids
$Mar \ 28$	8	Measuring Distances Using Parallax
Apr $04$	16	Hubble's Law
Apr $11$	13	Mapping the Galaxy
Apr $18$	14	Galaxy Morphology
Apr $25$	2	The Origin of the Seasons
Apr $27$	End 2nd half	Observation Sheets
May 02	Handout	Review of Astronomy
May 09	FINALS	WEEK

# Lab Schedule