ASTRONOMY 5 – SYLLABUS – Spring 2013

Ticket No. 3142: Prerequisite or Corequisite: Astronomy 1

INSTRUCTOR: Richard Rains
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OFFICE HOURS: M-Tu-Th 1:00 –3:00 p.m.

Lab Book (required): "Astronomy 5 Lab Exercises" Bookstore: $5.00
Star Finder Chart (required): Bookstore: $3.59

COURSE DESCRIPTION: This course involves familiarization with astronomical instruments, observation techniques, motions of the sky, the celestial sphere, star charts, constellations, lunar and planetary orbits and surfaces, stellar spectra, and classification of galaxies.

STUDENT LEARNING OUTCOMES

1. Set up, operate, and maintain an astronomical telescope and use it to identify features of selected astronomical bodies, as evidenced in lab reports, quizzes and final exam;

2. Analyze and obtain data from astronomical charts and images, as demonstrated in lab reports**,** quizzes and final exam;

3. Use star charts to identify constellations and stars, and become familiar with the night sky, as demonstrated during evening viewing sessions and in written lab reports**,** quizzes and final exam.

GRADING: The final course grade will depend on the following:

Lab Reports:	40% of final course grade
Weekly Quizzes:	30% of final course grade
Final Exam:	30% of final course grade

FINAL EXAM: Tuesday, May 28, 7:00 p.m. to 10:00 p.m.

The final exam is an open-lab-report exam, so good reports will greatly aid in taking the final.

WEEKLY QUIZZES: Each week, the session will begin with a brief, ten-minute quiz about the activity of the previous week. This quiz will be given at 6:50 p.m.. Anyone arriving after 7:05 p.m. will not be allowed to take the quiz. There will be no make-ups. However, at the end of the semester the two lowest quiz grades will be dropped.

LAB REPORTS

Each lab report is due one week after the activity is performed. Late lab reports will be reduced in grade by 10% each week they are late.

Lab reports should consist of the following, in this order:

Title Page: Include your name in the upper right, the title of the activity at center, followed by the date the activity was performed; lab partners' names at lower right. The title should be descriptive of the activity performed. For Example, use "The Planet Venus" instead of "Lab No. 3".

Data Page: Include all sketches and measurements made during the activity. They should be initialed by the instructor the night of the activity before you leave. Lab data must be recorded in the pre-printed data sheets provided in the Lab Handout Booklet available in the Bookstore. Any student not using the pre-printed sheets by the third week of the semester will lose 10% on the lab report grade.

Analysis: In a few paragraphs, discuss everything you did, why you did it, and what the result was. Discuss each sketch (when there are sketches), describing what you saw in some detail. Emphasize your visual impressions; colors, shadows, shapes, positions, etc. What did you learn from each activity? The analysis must be printed out, double-spaced, with a reasonable font size.

Missed labs cannot be made-up and will be recorded as zero. However, the single lowest lab report grade will be dropped at the end of the semester.

If a student misses a lab activity, he/she is still responsible for questions about that activity on the final examination.

FIELD TRIPS:	March 5:	Templin Highway – Star Clusters
	April 9:	Templin Highway – Galaxies and Nebulae

EXTRA CREDIT: - Visit to Griffith Observatory. The grade for this activity replaces the two lowest lab report grades. Submit a written report describing the five displays you liked best at the Observatory and discuss how they work, what you learned from them and how they tie in to the Astronomy classes you have taken.

THINGS YOU WILL NEED TO BRING TO CLASS EACH WEEK:

- sketching pencils and paper
- star finder
- WARM CLOTHING!!

CELL PHONE POLICY: No cell phone activity of any kind is allowed during class time, either in the classroom or outside during viewing sessions. This includes text messaging. (The Only Exception: astronomy-related apps.)
ETHICS POLICY: Any student found to be cheating on any quiz or test will receive an immediate zero on that activity.

PLAGIARISM: Lab reports must be written by the individual student. Any material which is word-for-word the same as another source must be placed in quotes with the source citation. Any copied segments not in quotes will be considered as plagiarism. The grade for such a lab report will be zero.

LATE ARRIVAL POLICY: Each session will begin with a lecture preparation. Anyone who arrives late enough to miss most of the lecture prep will receive a maximum grade of only 50% for the lab report on that activity.

DATES listed on this syllabus may change. Each student is responsible for current class announcements, whether he/she is present in class or not.

Last Day to drop the class without a "W":	February 18
Last Day to drop the class with a "W":	May 3

NOTE: It is the student's responsibility to drop the class. After the final census date, the instructor is not responsible for excluding students who have become inactive.

You can get help from Learning Center Resources:

Here's the facebook link:

http://www.facebook.com/lamcssc?v=info&ref=ts#!/group.php?gid=156772824338146

Tentative Schedule of Activities

Field Trips	Date	Moon Phase	Activity
	Feb 5:	wan cres	Lab intro, Constellation recognition, use of quadrant, star colors by naked eye.
	Feb 12:	newish	telescope usage, collimation, easy binaries
	Feb 19:	wax gib	binaries challenging- retrograde
	Feb 26:	fullish	Jupiter observation- "Night Sky" exercises - star cluster prep
FT1	March 5:	last ¼	Field Trip I– star clusters
FT1 BU	March 12:	new	telescope optics
	March 19:	first ¼ +	Moon intro and 1st ¼ moon observation
	March 26:	full	Lunar topography ex - full moon observation- galaxy prep
	April 2:	wan gib	Spring Break
FT2	April 9:	new	Field Trip II – galaxies and nebulae
	April 16:	thick cres	Moon obs/crater comparison exercise –field of View
	April 23:	near full	Spectra – Kepler's Laws
FT2 BU	April 30:	wan gib	Mercury orbit – parallax -retrograde
	May 7:	newish	H-R diagram – diffraction
	May 14	thin cres	Mars Topography
	May 21:	wax gib	Saturn observation – Campus Service Night
	May 28:	Final Exam	