Syllabus for Astronomy 101

Instructor:	Trace Tessier
Class Time:	MTWR, 12:30-1:45pm
Location:	Regener Hall, Room 103
Office Hours:	Posted on website
Office:	Regener Hall, Room 109
Email:	tessiert@unm.edu
Text:	Astronomy: A Beginner's Guide to the Universe, by Chaisson and McMillan, 4th, 5th, or 6th ed.
Course Website:	http://physics.tsu-li.com/courses/astro101

> *"There is, though I do not know how there is or why there is, a sense of infinite peace and protection in the glittering hosts of heaven. There it must be, I think, in the vast and eternal laws of matter, and not in the daily cares and sins and troubles of men (and women), that whatever is more than animal within us must find its solace and its hope."*
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> - H. G. Wells, *The Island of Dr. Moreau*

Course Description

Astronomy is the study of the universe and its contents. It is founded upon our desire to understand the world we live in and our place in it. It is also the oldest of the sciences. While the techniques used to study the cosmos have evolved from the naked eye observations of the first stargazers to the high-tech space- and earth-based equipment of today, the primary goal of astronomy has remained unchanged: to understand our universe, where it came from, and where it is going.

The purpose of this course is to give you an idea of what we know about the universe, how this knowledge is acquired, and how much still remains to be understood. We will find that the universe is a dynamic, continually

evolving place containing wonders that challenge the imagination but that is, nevertheless, guided by certain fundamental principles.

Prerequisites

The only prerequisite for this course is a curiosity about the universe, its contents, and its evolution. The amount of mathematics in this course will be kept to a minimum. This course is designed so that everyone who puts forth the required effort will do well.

Goals

We will focus on achieving a conceptual understanding of the universe, as well as an appreciation for the scientific reasoning that has led to our current state of knowledge. This is a vast subject that cannot be treated in detail in a one-semester course. Our approach will instead be to survey several distinct topics in astronomy while at the same time learning about the overarching principles that govern the universe.

Attendance

My teaching and testing style assume that you attend class on a regular basis. We will cover material that is not in the textbook. This includes information about the latest astronomical findings and topics presented in several in-class videos. Much of this material will show up on tests. Often I will tell you in class which information from these outside sources you are likely to be tested on. Additionally, it will sometimes be necessary to change a test date or to announce a change to the class schedule. Missing class is not an excuse for not knowing this information.

Note: UNM requires that the "Date of Last Attendance" be entered along with any failing, incomplete, or withdrawal grade. The date entered in such circumstances will be the date of the last test taken by the student.

Lectures

My goal is to make this class both fun and informative and to do this I need your help. Please turn off your cell phones before coming to class, and please do not participate in side conversations during the lectures. Ringing cell phones and chatting are distracting to the entire class.

Please ask questions at any time during the lecture. If you are confused about something I am probably not doing a very good job of explaining it, so let me know. Most likely, many of the other students share your

confusion. I am always happy to answer any astronomy question, but will not repeat test hints given in a previous lecture. If you miss class you will have to get any test hints from another student.

Often I will ask for volunteers to help me with in-class demonstrations designed to illustrate a certain topic. There will also be some in-class group work assigned that will be directly relevant to the tests.

Office Hours

Office hours are regularly scheduled times when I am available to meet with students to answer questions, explain certain concepts in more detail, etc. These are the best times to meet with me. However, if you are unable to make it to my office hours feel free to contact me and we can arrange a meeting. The course website lists the days, times, and locations of my office hours for this class.

Contacting Me

Email is the best way to contact me to arrange additional office hours, to let me know that you have had an emergency and will have to miss class for an extended period of time, etc., but not for answering questions about the lecture material. This class is too large for me to attempt to explain astronomical concepts to students via email. Please use the lectures and office hours for questions of this type.

Course Website

The website for this course is designed to supplement the lectures and to provide curious students with links to additional resources. Please check it often (at least once a week). There is a section called "Course Announcements" which I may use to communicate important information to the class. This section is meant to be a convenience for students, not a comprehensive bulletin board for those who miss class. Do not rely on these announcements to keep you up-to-date if you miss class. Talk with your fellow students.

The website also contains links to a "Downloads" page and a "Links" page. The downloads page contains downloadable versions of this syllabus, a tentative course schedule, the PowerPoint slides used in lectures, and suggested study questions. The links page provides easy access to useful astronomical and UNM websites. Often I will access a website dedicated to a certain topic during class. When I do this I will also post these links on

this page for your personal use.

Note: The course website is provided for your convenience, but I cannot guarantee that it will be available over the internet at all times. Unavailability of the site is not a valid excuse for poor performance in any aspect of this course.

Homework

There will be regular reading assignments and a list of study questions that will help you prepare for the tests, but there will be no graded or turned-in homework. The solutions to the in-class group activities will be presented at the end of each activity, and so will not turned in to be graded. However, test questions will be taken directly from these exercises.

Tests

There will be four tests in this course. Each test will consist of a certain number of equally weighted multiple-choice questions totaling 100 points. None of the tests will be cumulative, but will only include material presented since the last test. Cheating on the exams will not be tolerated.

Grading

I will drop the lowest of your first three tests. This means that the total number of possible points in this class is 300 (200 from the best two of your first three tests and 100 points from the last test). The last test is mandatory and cannot be dropped. This test is not any harder than the previous three tests, nor is it cumulative. It is mandatory because if it could be dropped, then some students would be able to quit the course early and violate the spirit of the course and the grading.

Makeup Tests

Each student will be allowed to makeup at most one missed test. The student must complete the test no later than immediately after the next class period (during which the tests will be returned to the rest of the class). 10 points will be subtracted from the grade on this test, regardless of the reason for the absence. Additionally, no makeups will be given for the last test.

Grading Scale

Depending on class performance, I may or may not grade according to a curve. Grading on a curve can only improve your grade; it cannot lower it. In any case, I will assign letter grades according to the following scale

(rounded to the nearest whole number):

A+	97 – 100	A	93 – 96	A-	90 – 92
B+	87 – 89	B	83 – 86	B-	80 – 82
C+	77 – 79	C	73 – 76	C-	70 – 72
D+	67 – 69	D	63 – 66	D-	60 – 62
F	Below 60.				

Dropping This Course

Unfortunately, there seems to be a trend emerging among academic advisors to tell students doing poorly in a class to petition instructors to drop them after the posted drop deadline to avoid (i) receiving a low grade, (ii) losing a scholarship, and/or (iii) being placed on academic probation. Doing this is in direct violation of UNM policies. Accordingly, I will not drop a student after the posted deadline for the semester on account of poor performance in this class, regardless of the circumstances. Each student must evaluate his/her performance in this class and make the decision whether or not to drop prior to this deadline. Do not assume that I will drop you if you simply stop coming to class and taking the tests; I will not. Be sure to drop the class through the registrar's office.

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.

Tutoring

Free tutoring for this class is available through CAPS. Go to http://www.unm.edu~/caps/.

I hope that everyone will enjoy this class and come away with a good feeling about science in general and astronomy in particular. Good luck and have a great semester!