

Physics 103 – Fall 2002

General Astronomy

Professor:	Phone	E-mail
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Office: Duke 108		

Class meeting:

Lecture: Monday and Wednesday 2:30 – 3:50 pm Duke 102

Lab: Thursday 9:30 am – 12:20 pm, or 1:00 – 3:50 pm Duke 113

Office Hours:

Monday and Wednesday 10:30 – 11:30 am

(and by prior appointment with instructor)

Texts

“Stars, Galaxies, & Cosmology: The Cosmic Perspective” by Bennett et al. (2nd edition; Addison Wesley, 2002)

“Universe Down to Earth” by Neil de Grasse Tyson (Columbia University Press, 1994)

Goals

1. What is science? How does it work?
 - Why is science different from philosophy or religion?
 - Why is a scientific “theory” different from a conspiracy “theory?”
2. Learn about the Scientific Method through study of Astronomy:
 - How do we know there are planets around other stars?
 - How are stars and planets born, live, and die?
 - What are black holes?
 - Where did the Universe come from and where is it going?
 - Are we alone in the Universe?
3. Prepare you to live in a scientific world.
 - “Scientists discover giant black hole. Should I be afraid?”

Final Exam

The final exam will be Tuesday, December 17th 3:00 – 6:00pm.

Class Web Site

http://newton.uor.edu/FacultyFolder/tyler_nordgren/Astronomy/

Organization

Lectures: Lectures are each Monday and Wednesday. Readings out of the texts, or other sources, will be assigned each lecture to be completed by the following lecture. Each lecture will be given as a review to what was in the reading assigned for that day. Be sure to do the reading.

Lecture notes will be placed on the web approximately one week prior to lecture. Astronomy is a subject based on images (pretty pictures) and I want you to have access to them. **THE LECTURE NOTES DO NOT REPLACE COMING TO CLASS!** You will be responsible for the notes, what we do in class, and the assigned readings.

Homework: Each lecture, along with the reading assignment, a homework assignment will be given out. It is due the next lecture at the **beginning** of class. You will receive the graded homework the lecture after that. While several questions may appear on each assignment, only one question (which I pick) will be graded. If your answer to that question is fully correct, you will receive full credit for that homework assignment. If your answer is **NOT** fully correct you will have the opportunity to resubmit a revised answer at the **next lecture** for full credit. Keep in mind that a new assignment is still given out each lecture which you are still required to turn in. If the answer is still not correct on the second try you get no credit. If you turn in a revised homework more than one class period after it was returned, you get no credit.

Be sure to clearly write the assignment number at the top of each homework assignment in order to avoid confusion on your part and mine.

No late homework is accepted.

At the end of the semester I will drop one or two homework grades. This means that if you miss an assignment during the semester, you are in luck; it won't hurt you. However, miss more than one and you put yourself in risk of failing the course.

Quizzes: A short quiz will be given in class on most Wednesdays to help assess how well you are keeping up in class. There are no make-up quizzes so skip a class at your own peril.

Labs: Labs are Thursday morning (section 1) or Thursday afternoon (section 2). They are each week. The first half hour or so of each lab time will be spent reviewing the course material or answering any questions you may have. This is your time to clear up whatever questions you have.

The rest of lab will be spent working in small groups exploring some deeper aspect of the material presented in class. Bring a calculator and be sure you know how to use it.

Three times during the semester, on the night of labs, we will be traveling 30 minutes to the mountains for evening observing with telescopes. You are required to attend two of these. If you cannot make these nights, drop the course now. Since we

obviously cannot observe if the weather is cloudy, there is a designated back-up date for that observing session. See the schedule below and on the class web page.

On the class web page there are driving directions and instructions on appropriate clothing to wear. It is cold in the mountains. If you are not dressed appropriately you will be sent home and not receive credit for that night.

During the semester you will be given hand-outs for use at the observing lab and be asked to draw things you see in the sky and through the telescope. Keep these together. These will be your **Observing Notes** and will count towards your final grade.

Exams: Three exams will be given during the course of the semester. Your lowest grade is dropped. We all have bad days. Just make sure you don't have more than one. Each exam covers only the material covered in class between it and the previous exam. The final exam is inclusive of the whole semester. The date of the final is set and cannot be changed by me. If you have a problem you must contact Dean Dan Wacks (x4080). I can do nothing about changing the date of the exam or allowing you to take it at another time. Don't even ask.

Class Citizenship: This is a measure of the respect with which you treat your fellow classmates and myself. Showing up late to lab so that your lab partners have to explain to you what we are doing is rude to them. Attending class only to sleep through it is rude to me.

Grading

Homework	20%
Quizzes	10%
Labs	20%
Observing notes	5%
Class citizenship	5%
Exams	20%
Final Exam	20%

Exam Dates:

Exam #1 Wednesday, October 2, 2002

Exam #2 Wednesday, October 30, 2002

Exam #3 Monday, November 25, 2002

Final Exam, Tuesday, December 17, 2002 – 3:00 pm

Observing Labs

Sections 1 and 2

Obs. Night	Back-up Night
Sept 26	Oct 3
Oct 17	Nov 14(!)
Dec 5	Dec 12