PHYS 321

Astronomy & Astrophysics II

Spring 2018
MW 11:00 AM–12:55 PM, KUPF 208

Instructor: Prof. Bin Chen
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Office Hours: Wednesdays 1–3 PM

Overview

PHYS 321 is the second of a two-semester introductory sequence to astronomy and astrophysics. It is a quantitative introduction to the astronomy of stars, the galaxy, and cosmology, with an emphasis on the physical principles involved.

Course Outline

1. Stars: Distance and Magnitudes
2. Light, Blackbody Radiation, Color Index
3. The Interaction of Light and Matter
4. Stellar Spectra and Stellar Atmosphere
5. The Interiors of Stars
6. Stellar Birth
7. Stellar Evolution
8. Stellar Remnants
9. Black Holes and General Relativity
10. Close Binary Star Systems
11. The Milky Way Galaxy
12. Galaxies and Galactic Evolution
13. The Structure of the Universe
14. Cosmology

Grading

Homework (30%), class participation and quizzes (20%), mid-term exam (20%), and final exam (30%). Conversion to the final letter grade is based on the following chart. Grades are not negotiable.

A	B+	B	C+	C	D/F
>85	>75-85	>65-75	>55-65	50-55	<50

Class Policies

Students must attend all classes unless they have a legitimate reason and have notified the professor in prior to the class. **Makeup exams** will only be allowed under extraordinary circumstances such as severe illness. Students need to contact the professor in advance to make alternative plans for taking the exam and must present proof that clearly states the reason AND date. **Use of phones, tablets, and laptops is restricted** only to in-class exercises or note taking. The University Academic Integrity Code is taken very seriously and enforced strictly.

Textbook

Introduction to Modern Astrophysics, 2nd Edition, by Carroll & Ostlie. This is the same textbook as PHYS 320: Astronomy & Astrophysics I

Prerequisite

Phys320 Astronomy & Astrophysics I

Course Web Page

http://web.njit.edu/~binchen/phys321, where you will find weekly reading assignments, lecture notes, homework assignments, etc.

Homework

Homework assignments are all written assignments, due each week at the **start** of the class. Late submissions will have grades reduced by 50% and **must** be turned in by April 30 for credit.

Class Participation

Students are expected to attend all classes. This, together with performance in regular in-class **i-clicker** quizzes, will determine this part of the grade.

Exams

There will be **one mid-term exam** and **one final exam**, both of which are closed book. The format of the exams will be similar to the homework and in-class quizzes. The final exam has to be taken to receive a passing grade.