

# Syllabus for Astronomy 101 Fall 2004

**Instructor:** Dr. Rob Mohr

**Class Time:** TR 2:00 – 3:15

**Text:** *Astronomy from the Earth to the Universe* Pasachoff 6<sup>th</sup> Edition

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**Office Hours:** MTWR 1:30 - 2:30

**Office Phone:** 934-8107

This course is designed to introduce the students to several concepts about the formation, evolution, and physical laws of the universe. These topics include, but are not limited to, the Big Bang Theory, production of the elements through nuclear fusion, the known physical forces, four dimensional space time, galaxy and star formation, black holes, and time travel.

All necessary material to receive an A in this class will come from the class lectures. As such, lecture notes will provide the best platform to study for all quizzes and exams. The book should be considered a supplement to the lecture notes, not the other way around.

Your final grade will be determined using the following scale:

|                   |     |
|-------------------|-----|
| Quiz Average:     | 50% |
| Homework Average: | 20% |
| Final Exam:       | 30% |

There will be an in class quiz (5 or 6 questions) every two or three weeks. You will be given 30 minutes to complete the quiz, which will be closed book and closed notes. Your lowest quiz grade will be dropped. If you know ahead of time that you will not be present for a quiz, you must notify me one week in advance (NO EXCEPTIONS) and take the quiz early.

There will be two homework assignments during the semester. These will consist of four questions to be answered in essay format. Homeworks should be considered as an additional study resource for the final exam

You will be allowed one sheet of 8 ½ by 11 inch paper, front and back, to use during the final exam. This sheet may contain any information of your choosing. The short quizzes will be closed book and closed notes.

All short quizzes, as well as the final exam, are to be individual effort. Any collaborations during such times will result in a zero for the assignment on the first offense and a second offense will result in being turned in for academic misconduct.

There will be no class on Thursday November 25 (Thanksgiving Holiday). Class will be held on all remaining Tuesdays and Thursdays.

Tentative Schedule (Dates for quizzes are marked with an asterisk):

|         |               |                                      |
|---------|---------------|--------------------------------------|
| Week 1  | August 23     | Chapters 1 and 2                     |
| Week 2  | August 30     | Chapters 3 and 4                     |
| Week 3  | September 6*  | Chapter 27                           |
| Week 4  | September 13  | Chapters 28 and 29                   |
| Week 5  | September 20  | Chapters 30 and 31                   |
| Week 6  | September 27* | Chapters 34 and 35                   |
| Week 7  | October 4     | Chapter 36                           |
| Week 8  | October 11*   | Chapter 37                           |
| Week 9  | October 18    | Chapter 38                           |
| Week 10 | October 25*   | Additional Material / Current Events |
| Week 11 | November 1    | Additional Material / Current Events |
| Week 12 | November 8*   | Additional Material / Current Events |
| Week 13 | November 15   | Additional Material / Current Events |
| Week 14 | November 22   | Additional Material / Current Events |
| Week 15 | November 29   | Review                               |

# AST 111- Astronomy of the Universe Lab

**Lab Hours:** Tuesday 5:30pm-8:30pm  
**Location:** CH461  
**Instructor:**  
**Office:**  
**Office Hours:** by appointment  
**E-mail:**

## Content

- One lab will be performed each week. The lab may or may not coincide directly with the material from the 101 class.
- The beginning of each class will consist of a ten to fifteen minute lecture outlining the theory and execution for the lab.
- Each lab is to be considered as an expansion of the material learned in the 101 class. In some instances, material from one lab will be helpful on a following lab.
- Each class will end with a brief review and discussion of your observations.

## Grade

- 96% of your grade will be determined by lab reports. All 8 reports will contribute equally to the final grade and be worth 12% each.
- The remaining 4% of your grade will be determined by participation and attendance.

## Miscellaneous

- Make-up labs will not be given. It may be possible to attend the same lab on a different night the same week. The only way you may attend the other lab is by contacting me before your lab with a legitimate excuse.
- Copying information from a book, web site, someone else's report, or any other source, into your report without citation is considered **CHEATING**. This pertains to sentences as well as pictures and illustrations. Quoting short passages is OK, but you must include references, that is, you must tell me from whence the passage(s) came.
- Instances of cheating will be handled as follows:
  - First Offense-No credit on the report
  - Second Offense- No credit of the report and no participation/attendance credit.
  - Third Offense-An F for the course and you will be turned in for academic misconduct.

## Lab Reports

- Lab reports should be placed within your lab notebook. They will be handed in at the end of each lab and be based on discussion and observations from the previous demonstration.
- The beginning of each lab should contain your name, the date on which the lab is occurring, and the name of the lab. This information should be supplied in the top right hand corner.
- The following sections should be within you report:
  - An **Introduction** with a brief review of the discussion (This may be supplied by taking notes during the beginning lecture.)
  - An **Experimental** section describing the equipment used and methods followed in the lab
  - A **Data/Results** section containing a description of your observations during lab.
  - A **Conclusion** section which should contain a brief description of what you have learned from the lab. This should be an *interpretation* of the results, not a retelling. Some question to think about when preparing the conclusions section include:
    - What does the data mean?
    - How was the data used to arrive at these results?
    - What assumptions, if any, were needed to make your results meaningful?