Welcome to Phys 010!  
(a.k.a. Astronomy) 
Prof. Rose Finn  
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http://66.194.178.32/~rfinn/astronomy/  

Class: MWF 2:35-3:25 pm  
Office Hours: MW 3:45-4:45 pm  
or by appointment

What is astronomy?

• Divide into groups  
  (5 - 7 students)  
• Talk amongst yourselves  
• Formulate an answer in each  
group...

Main Goal of Course

"to help you share in the ongoing  
adventure of astronomical  
discovery. One of the best ways to  
become a part of this adventure is  
to do what other humans have  
done for thousands of generations:  
Go outside, observe the sky  
around you, and contemplate the  
awe-inspiring universe of which  
you are a part."

Essential Cosmic Perspective, p 26

Course Goals

• Motions & Cycles in the sky  
  • seasons  
  • phases of the moon, tide  
  • sun, planets, stars  
• Telescopes as tools for  
astronomy  
  • general principles  
  • current state of technology
### Course Goals, cont’d
- Electromagnetic Spectrum
  - the many “colors” of light
  - as a tool for astronomy
- Gravity, and how it relates to:
  - orbits of planets
  - stellar structure
  - planet formation
  - galaxy formation
  - life of earth

### Course Goals, cont’d
- How did we get here?
  - Origin of Universe, galaxies, stars, planets, us!
- Fragility of life on earth
  - vast emptiness of space
  - requirements for life
- How science works
  - the scientific method
  - critical thinking

### Teaching Philosophy
- You learn best by doing
  - supported by ample research!!
- You will be active learners!
  - reading
  - working problems
  - discussing with neighbors
  - teaching peers
  - laboratory/computer exercises
  - online tutorials

### Attendance Policy
- You will do better if you come to class.
- We will have frequent in-class assignments that will affect your grade.
Late Policy

- Astronomy Place assignments
  - No late work accepted!!!
- Other Assignments:
  - 50% off for late work

Grading

- Tests 30%
- Term Paper 10%
- Other 40%
  - Homework
  - Reading quizzes
  - In-class assignments
  - Labs
- Final Exam 20%

Exam Dates

- Exams
  - Friday 9/29
  - Friday 10/27
  - Friday 11/17
- Final Exam
  - comprehensive

Term Paper

- You choose topic
- Guidelines are on class website
- Important Dates:
  - Mon 10/9: Topic Due
  - Wed 11/8: Rough Draft Due
  - Mon 12/4: Final Draft Due
Night Observing

- 2 visits required
  - one constellation quiz
  - one telescope observing
- Sessions run by physics majors
  - on fields behind MAC
- Tues, Wed nights if clear
- Download night labs from class website

Required Texts

- The Essential Cosmic Perspective
  Bennett, Donahue, Schneider, Voit
  3rd Edition
- Reading
- Homework assignments
- Some in-class problems
- Astronomy Media Workbook
  - please bring this to class!!!
- Voyager SkyGazer software
  - this is available on physics computers

Additional Resources

- Astronomy Place
  - www.astronomyplace.com
- Register for my class
  - Class ID: cm289772
- You will submit for credit:
  - quizzes
  - tutorials

Notes

- My slides will be available on the web.
  - will try to post them before class
  (Schedule link on class web site)
- NOT EVERYTHING will be in posted notes!!!
- You need paper for working out in-class problems and notes not in slide presentation.
- Calculator
- Binder is a good option.
Homework

- Join class on astronomy place
- Install Voyager SkyGazer on your computer
- Complete *Introducing SkyGazer*
  - starts on p129 in Media Workbook