Astronomy 1 – Winter 2011



Gaseous Pillars in M16 · Eagle Nebula Hubble Space Telescope · WFPC2

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Final Review; March 9 2011

First of all:

Well done!! You guys have done well in class!

About the final. Topics

- The final will be on the entire course
- I know it is a lot of material, so focus in particular on the following:
 - Understand concepts, not names or facts
 - Make sure you understand basic physics concepts such as gravity, the nature of light, Newton's laws, blackbody radiation, etc
 - Also, practice using small angle formula, inverse square law formula, kepler's laws, unit conversions, etc
- Cosmology will not be part of the exam

A word about formulae

- Formulae tell a story. Understand the story and you will know what formula to use.
- Formulae that you need to know include:
 - Small angle formula
 - Luminosity vs Flux
 - Stefan-Boltmann's Law
 - Blackbody Formulae
 - Newton's Laws of dynamics
 - Newton's Law of Gravity
 - Kepler's Laws
 - Schwarzschild Radius
 - Doppler Effect
 - Relation between resolution and diameter of a telescope
 - Energy of a photon

About the final. Practicalities

- You have 3 hours for your final
- There will be 36 multiple choice questions, similar to the ones you did in the midterms and in lectures. Approximately 2/3 of the grade
- There will be 2 open problems. Approximately 1/3 of the grade
- The final is worth 40% of the total grade.
- The exam is open book-open notes. Bring a calculator.
- No laptops, cell phones, no extra-books, etc
- BRING SCANTRONS!
- PUT NAME AND VERSION A/B ON EXAM!!!!!!

About the final. How to get a good grade

- Plan how to use your time: read all the questions before starting your exam.
- Read each question carefully
- **Pay attention to units**, ask yourself if the numbers that you are getting make sense.

Any questions?

The End

Final Exam March 16, noon Good Luck!