Astronomy 104

Final EXAM REVIEW

May 9, 2004 12:25 – 2:25 pm B102 Van Vleck

The test will consist of 100 multiple choice questions. 50 of the questions are on the material since the 12-week exam. 50 of the questions are comprehensive. You should look at the 6-week and 12-week review sheets to prepare for the comprehensive questions; their focus will be larger concepts. You are responsible for all topics in lectures, discussion sections, homeworks, and material in the readings related to those topics.

75% of the questions are conceptual, 25% are recall. So when studying make sure that you are **UNDERSTANDING** ideas more than memorizing. To help you study, download the lecture notes from www.astro.wisc.edu/astro104,; make sure you can do the ConcepTests; work with friends and craft your own ConcepTests; and stop by to see Marta or me with questions.
Any equations that you need will be on the exam!

Topics since 12-week Exam

Solar Activity and Sun-Earth-Connection
- Coronal mass ejections and the solar wind
- Aurorae

Second Law of Thermodynamics
- Thermal equilibrium and energy sources

Terrestrial Planets
- General properties
- Geology
  - Differentiation and iron cores
  - Cratering
  - Plate tectonics and volcanic activity
  - Cooling rates
- Atmospheres
  - Retention of Atmospheres
    - Thermal velocities
    - Escape velocities
  - Greenhouse Effect and Runaway Greenhouse Effect

Comparative Planetology – the stories of Venus, Earth, Moon, and Mars

(over)

Jovian Planets

- General properties
- Internal structure of Jupiter
- Atmospheric dynamics
  - Energy flow and convection
  - Atmospheric motions
  - Coriolis effect
- Magnetic fields
  - Magnetospheres
  - Formation
- Moons of Jupiter
- Rings
  - General properties
  - Roche limit
  - Gaps and shepherds

Asteroids, Comets, Meteors, the Kuiper Belt, and the Oort Cloud

ExoPlanets

- Doppler method