Pre-course Quiz

This quiz is just to judge the appropriate "level" for the course, its not for credit!

<u>Prior background in the subject:</u>

Have you ever taken a course in astronomy?
- Yes, Exploring the Universe
- Yes, Other (level/description?)
- No.

Have you looked through an astronomical telescope ?
- Yes, I own one
- Yes once or twice (public observatory, school, friend's, etc.)
- No

Do you follow Astronomy ?
- Yes actively in magazines and books, and online
- Yes, on TV (Nova etc)
- Only incidentally (i.e. mainstream news outlets)
- No

<u>Astronomy facts</u>
- Solar system
- Order by size and age
- RA, Dec

How long does light take to reach us (very approximately) from:
- The Sun
- The next nearest star
- Closest galaxy
- Edge of the observable universe

Rank in order of size (smallest to largest)
- Earth, Sun, Jupiter

Approximate number of Exoplanets currently known (planets known orbiting stars other than the Sun)

Rough number of dynamically confirmed Black Holes.

Number of Stars in our galaxy

Why is the sky dark at night?
Quantities likely to be conserved throughout the lifetime of a star?

Possible reasons for telescopes being situated on remote mountain peaks?

Kepler's Laws?

Origin of the elements……

Possible conclusion derived for the detection of short-lived unstable isotopes in the spectra of certain stars.

Basic Physics calculations
- Orbits
- Diffraction
- Dispersion
- Chromatic aberration

Under what physical conditions would a spectrum display emission lines?

Under what physical conditions would a spectrum display absorption lines?

Mass of the sun inferred from the length of a year

Mass of the Milky Way galaxy inferred from the observation that the entire Solar system is moving in a circular path at 220 km/s.

Required resolution of a spectrograph if it is to detect Doppler motion in a star with an orbiting planet?

Reasons for putting the Hubble Telescope in Space ?

List something specific that you hope to learn, or otherwise get from the course.