

Exam 1 Review Guide

Science vs. Pseudoscience

Scale of the Universe

Motions in the Sky (sun, planets, stars, our moon and its phases)

- Over one day

- Over one month/a few months

- Retrograde motion

Seasons & Solar Heating

Physics

- Conservation of Energy

- Conservation of Angular Momentum

- Kepler's Laws

- Newton's Laws

- Gravity

- Radiation:

 - Emission

 - Absorption

 - Thermal / Blackbody

 - Wavelength, Frequency, Energy

 - Spectroscopy

Telescopes

- Angular Resolution

- Light Collecting Area

- Effects of Atmosphere on Observations

Planetary Formation

- Nebular Theory (in detail, including how it explains all the observations, as well as the exceptions)

Planetary Processes: Comparative Planetology

- Differentiation

- Heating & Cooling

- Plate Tectonics / Tectonics in general

- Volcanism

- Magnetic fields

- Erosion

- Carbon Cycle

- Greenhouse Effect

- Weather