

## **Astro 100 MW Exam I Study Guide**

*Topics (not exhaustive, but covers the most important material)*

Acceleration

Asteroids

Atomic Number

Atoms

Brahe

Chemical Reactions, Nuclear Reactions

Comets

Comparative Planetology

Copernicus

Densities of Planets and Sun

Distance, Velocity, Time

Distances of Planets from Sun (in AU)

Doppler Effect

Dwarf Planets

Egyptian and Julian Calendars

Einstein, matter and energy equivalence

Electrons

Energy, forms and conservation

Equinoxes and Solstices

Features of Planets

Fluorescence

Frequency, Wavelength, and Speed of Light (terms and relationship)

Fundamental Particles

Galileo

Geocentric Model

Greenhouse Effect

Jovian Planets, Terrestrial Planets

Kepler, and his Laws

Kuiper Belt Objects

Light

Mass, Weight

Metric Unit Prefixes (centi, kilo, mega, etc.)

Molecules

Momentum

Months

Moon's Orbit Around Earth

Newton, and his Laws of Motion and Gravity

Number of Galaxies

Number of Stars in Visible Universe, in a Galaxy

Oort Cloud Objects

Orbit of a Planet around Sun (ecliptic plane, perihelion, aphelion)  
Order of Magnitude Calculations  
Parsec, AU, Light•year  
Phases of Matter (common: solid, liquid, gas, and plasma)  
Phases of Moon  
Photons  
Power  
Protons, Neutrons  
Ptolemaic Model  
Quarks  
Radius of Planets and Sun (in  $R_{\text{earth}}$ )  
Seasons on Earth  
Spectra  
Speed of Light  
Strong Force, Electric Force, roles in binding atoms  
Synchronous Rotation  
Temperatures of Planets and Sun  
Tidal Force, Tides  
Wavelength Rule for Observations