**Astro 105 Exam II Study Guide**

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

- Chandrasekhar Limit
- Dark matter
- Dwarf stars (red, white, brown)
- Edwin Hubble
- Galaxies
- Galaxy shapes (spiral, barred, etc.)
- Giant and Supergiant stars
- Globular clusters
- Interstellar medium (know details)
- Interstellar reddening
- Milky Way (sizes, number of stars, etc.)
- Neutron stars (data, size limits, formation, etc.)
- No-Hair theorem
- Nova
- Nuclear bulge (center)
- Pauli Exclusion Principle
- Physics of falling into a black hole
- Post-Main-Sequence events (shell fusion, flashes, etc.)
- Postulates of Special and General Relativity
- Protostars, Pre-Main-Sequence stars, Main-Sequence stars
- Pulsars
- Recombination photons
- Relativity
- Roche Limit
- Rotation curves (Keplerian, solid-body, etc.)
- Roy Kerr
- Schwarzschild's contributions
- Shell fusion reactions and products
- Spin-Flip radiation of hydrogen
- Star characterizations based on masses
- Star formation mechanism
- Stellar lifetimes
- Stephen Hawking
- Supernova (Type II and Type Ia)
- Superstrings
- Synchrotron radiation
- Temperatures for fusion reactions
- Variable stars
- Worm holes
- X-Ray Bursters