Astro 16 – Astrophysics: Stars, ISM, and Galaxies
Fall 2017
Prof. David Cohen

Guidelines for the final exam

The final is on Friday morning, December 15 at 9:00 AM in SC 181.

The exam will be comprehensive but will lean toward topics introduced since the midterm. However, the applications we've been studying in the second half of the semester rely on the concepts we studied in the first half. So it will be good, of course, to know everything!

Focus on topics discussed in class and those that showed up in homework problems. (And see below.)

The exam format will be like the midterm – closed book, but students bring a (two-sided) page of hand-written notes. These must be freshly written (you can't use or add to your midterm notes). The notes can be anything; they must be hand-written by you. I will supply you with constants and conversion factors (as I did for the midterm).

The exam questions will be less computational than those on the midterm, and more interpretive, with somewhat more writing and graphing and use of images and figures.

One goal is for you to not have to be as rushed as you were on the midterm.

List of important topics (not exhaustive, but these are the main ones):

binary stars

HR diagram and stellar evolution

nuclear reactions (and how they relate to stellar evolution)

end states and compact objects

star formation: process of collapse and forming protostars

multi-phase interstellar medium, including H II regions

galaxies: Milky Way morphology, stellar populations, rotation curves

Thinking about these topics, a common theme is *how* we know the things we know (how we measure them); and we also see physics themes: orbits (and mass-measuring – weighing), angular momentum conservation, usefulness of the Doppler shift…