Astronomy 150

Dr. Sara Ellison

Contact details:
Elliott Building: Office 208
Telephone: 250 721-7737
Email: sarae@uvic.ca

Office hours:
Monday, Thursday 2 - 3pm

Course outline:
Concepts in Modern Astronomy

- The night sky: What we observe, how and why
- Classical astronomy: From the Greeks to Newton
- Properties of the stars: How we measure cosmic quantities
- Galaxies: 100 years of progress
- Stellar evolution: Gravity, energy, black holes and Einstein
- Cosmology: The Big Bang, dark matter/energy, the expanding universe
- The solar system and other worlds

Website and text book

The course website is at http://www.astro.uvic.ca/~sara/A150.html

Figures from lectures available on website; these are NOT lecture notes!

The course text book is "Astronomy Today" by Chaisson & McMillan (8th Edition). Make sure you get the ASTR 150 version that is bundled with Mastering Astronomy!

All assignments will be done through the Mastering Astronomy site, which you can register for once you have purchased your textbook. Check the website for assignment deadlines (due most Mondays at 4pm PST).

Lecture style/preparation

Course is designed as an introduction for both students pursuing an astronomy degree, and as a general science elective.

Additional examples and math derivations done in class.

Text book chapter noted at the start of each lecture section: I recommend you read it!

Explore Mastering Astronomy – excellent supplementary materials.

Anything we discuss in class is examinable (including APODs, guest lectures, interactive web demos etc.)

No cell phones please.

First MA assignment is due Jan 23.

- You are allowed 3 attempts per numerical question 3% penalty per wrong answer. Multiple choice deducted 25% for each incorrect answer.

- Sometimes variables are randomized.

- No credit for late assignments.

- MUST hand in written working by assignment deadline, otherwise marked as zero. This written work is for my permanent reference and is not returned.

There is a review of the grading policy available at the start of each assignment.

- Be very careful with units. Questions often given in a mix of units, and constants maybe in other units (e.g. a distance in km, but you use speed of light in m/s).

- Know your significant figures! Don't round up until the end.

- Once you have completed a question, you can't go back to it.

Consider doing your work for all questions offline first. Keep your working - useful for office hour questions (save one of your "attempts" until after you get help!) and later exam revision.

Assessment

7 assignments due on Mondays at 4pm. All are online (MA), check for dates; submissions rejected after deadline (no late marks). Count 20%.

Mid-term 20% on Feb 23 in class.

Labs count 20%, but you must pass the lab to pass the course. There are no late marks.

Final exam, date TBD, worth 40%.

Formula sheet will be available for all exams (see website)

More on labs

Labs happen in room SCI A109. You have to sign up for a lab section separately from the course - make sure you're signed up to one!

Lab manual (and report book) is available in the book store.

Check the web site for lab schedule (starts week of Jan 9).

Dress warm for the visual lab (outdoors).

For any questions about labs, see Karun Thanjavur (karun@uvic.ca), SCI A115, 721-7750.