

ASTR 102 - EXPLORING THE COSMOS

An introduction to our scientific understanding of the workings of the Universe; from planets to stars to galaxies to cosmology. Intended for non-science students—little Math used.

Fall 2026 - Syllabus

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Office hours: Wed 12:30 – 2 pm, or after class. Zoom meetings available upon request.

Class times: Mon-Thur 13:00-14:20

Textbook

Astronomy Today 8th Edition or later by Chaisson & McMillan

Book is optional, but it may be useful to follow lectures and for extra readings.

We will be doing assignments in class. Bring a laptop, tablet, phone, or some other internet-enabled device to every class (except midterm/final exams).

Course will cover topics from Chapters 1-5 and 16-28 of the textbook

You will also need an **ASTR 102 Lab Manual**, which you can purchase from the Bookstore.

Grading

Homework quizzes:	15%
In-class polls:	10%
MidTerm Exam	15%
Lab Section:	25%
Final Exam:	35%

1. 10 homework quizzes, roughly one per week. These will be sets of ~10-15 *timed* multiple-choice questions, to be completed online using Brightspace.
2. Online in-class evaluations using Brightspace. I expect to have around 70 polls, roughly two per class, one point for every correct answer, zero otherwise. Grade will be based on your best 50 answers. An absence will count as zero points for each poll on that occasion.
3. Midterm and Final Exams are **required** components of the course and will be written in person, on paper. If you do not write the Midterm the final exam grade weight will be 50%. If you do not write the Final Exam you will receive a failing “N” grade.
4. The Lab Section is also **required** to pass the course. You can’t pass the course unless you pass the lab. If you do not complete the labs you will receive a failing “N” grade.
5. Examinations are **individual**. No communication-enabled devices (i.e., phones, laptops, tablets, etc) will be accepted during exams.
6. Plagiarism: Unacceptable, to say the least. Never copy work from each other, nor cite work from others without proper acknowledgment. Collaboration and discussion are fine, but any work you submit **must** be your own.

Lecture Schedule (tentative)

Lecture	Date	Topic	Reading
1	10 Sept	Our Home	1.1-1.4, 1.6
2	14 Sept	Astronomy as Science	2.1-2.4, 2.5, 2.7
3	17 Sept	Messengers of the Cosmos	3.1-3.5
4	21 Sept	The Atom's Inner Workings	4.1-4.3
5	24 Sept	The Tools of Astronomy	5.2-5.3, 5.5
6	28 Sept	The Sun	16.1-16.3
7	1 Oct	Stars I: Luminosity, Temperature	17.1-17.3
8	5 Oct	Stars II: Distances, Mass and Other Properties	17.5-17.7
9	8 Oct	Stellar Evolution: Low Mass Stars	20.1-20.3
	12 Oct	Thanksgiving	No Class!
10	15 Oct	Stellar Evolution: Massive Stars	20.4-20.6
11	19 Oct	Supernovae	21
12	22 Oct	Neutron Stars and Black Holes	22
	26 Oct	Mid Term In-Class Exam	
13	29 Oct	The Milky Way	23.1-23.3
14	2 Nov	Milky Way Formation and Galactic Centre	23.4, 23.6-23.7
15	5 Nov	Galaxies I	24.1-24.3
	9 Nov	Reading Break	No Class!
16	12 Nov	Galaxy Collisions and Dark Matter	25.1-25.3
17	16 Nov	Large Scale Structure	25.5, 26.1
18	19 Nov	Cosmology I	26.2-26.4
19	23 Nov	Cosmology II	26.5-26.7
20	26 Nov	The Early Universe I	27.1-27.3
21	30 Nov	The Early Universe II	27.4-27.6
22	3 Dec	Review+	
23	7 Dec	Review	