ASTR 102: Exploring the Cosmos
Fall 2025

Territory Acknowledgement

We acknowledge and respect the Lək̓ʷəŋən (Songhees and Esquimalt) Peoples on whose territory the university stands, and the Lək̓ʷəŋən and W̱SÁNEĆ Peoples whose historical relationships with the land continue to this day.

General Course Information

An overview of our place in the cosmos intended for non-science students. Starting from human's fascination of the night sky, we will cover a variety of topics from all scales of the Universe — quantum mechanics, our solar system, stars, galaxies, and cosmology.

Textbook:

There is no required textbook for the course aside from the lab manual. However, some sources you may find useful as support for the lectures are: *Astronomy Today*, 9th ed. by Chaisson & McMillan. You can purchase the book from the bookstore, and there are copies on reserve at the UVic Library for a short loan period.

Contact & Office Hours:

Instructor: Dr. Erica Franzmann
Office: Bob Wright Centre A115
Phone: 250-721-7750
Email: efranzmann@uvic.ca
Office Hours: Thursday 3 pm, or by appointment.
How to Contact: Please contact me via email for questions outside of class or office hours (include ASTR 102 in the subject line). Please note that unless your message is time-sensitive it is not likely that you will receive a reply after 9 pm. Office hours are, of course, drop-in. If you need to see me outside of office hours please contact me via email first.

When and Where:

Lecture Hours: 1:00 - 2:20 PM, Mondays & Thursdays

Course Credit: 1.5
Course Website: https://bright.uvic.ca/d2l/home/362202

Lab Location: Bob Wright Centre A111
The exact time and day of your lab will depend on which section you register for.

Lab Information

In addition to enrolling for the lecture you must **also** be enrolled in a separate lab section. The lecture is section A01, and the lab sections are B01-B08. You MUST pass the lab in order to pass the course. **You will need to purchase a lab manual from the bookstore. They are physical booklets this year.**

Communication

It is your responsibility to regularly check the Brightspace page, as well as the inbox of the email address you have provided to Brightspace. These are the only methods I have to contact you. When emailing myself or your lab TA, please put “ASTR 102” in the subject line.

Teaching and Assessment Modality

Lectures and Labs will be delivered face to face. In the event of instructor illness, the lecture *may* be held via Zoom. If this occurs, there will be an announcement on the course Brightspace page. You will require access to a computer or other digital device as assignments, labs, and distribution of lecture slides will be managed through Brightspace.

Additionally, there will be in-class brightspace “quizzes” that you will need a device for.

Learning and Teaching Technologies

The ASTR 102 Brightspace page will function as the course website where lecture-specific materials and quizzes will be handled. Your lab section will also have its own separate Brightspace page where you will submit lab reports and access lab-specific materials.

You may not use “AI” tools such as ChatGPT for any work to be submitted for grading in this course. These tools are also not a reliable source for research as they have a habit of inventing information. Use of these tools for coursework constitutes an academic integrity violation and will result in charges of academic dishonesty.

Assessments

All quizzes, exams, and lab reports are *individual*. Your final grade in the course will be based on your performance in the following components:

Homework Quizzes: 15%

There will be one quiz per week to be completed on Brightspace. Each quiz will have 10 questions with a time limit of 15 minutes*. The questions will be similar to what you will see on the midterm and final exams.

In-Class polls: 10%

In each lecture there will be a few questions based on concepts presented in class. These will be presented as a Brightspace "quiz" that you answer right then. You will only be graded on your participation in the polls, not whether you obtained the correct answer. Additionally, your final grade for this component will be based on a completion of 80%, meaning that if you participate in at least 80% of the polls you will get full marks.

All in-class questions have the potential to be prototype exam questions, so it is to your benefit to consider your answers as you participate.

Each question will have two phases. First, you will answer the question yourself. Then there will be a short period where you can discuss your answer with a neighbour, after which you can answer the question again.

Midterm Exam: 15%

The midterm exam will be held in-person October 9 during the regular class time. **If you miss the midterm exam for circumstances *outside your control*, contact me ASAP for an exemption.** If your exemption is granted your final exam will count for 50% of your overall grade.

Lab Reports: 25%

You will write a lab report for each of the five lab exercises. Each lab exercise is weighted equally. **You must pass the lab component in order to pass the course!** This constitutes achieving a cumulative grade of 50% across all five labs, with a minimum of three reports submitted for grading.

In the event that you need to miss a lab due to circumstances beyond your control (illness, specialist doctor appointments, etc.) email the lab coordinator (me) at **astrolabs@uvic.ca** AS SOON AS POSSIBLE. You may be given permission to attend another section (do not attend other sections without explicit permission) or permission to write a make up exercise at the end of term. Don't forget to include your course number and lab section in your email.

While it is expected that there will be some collaboration between students for the purposes of collecting data during the lab itself, your lab report must be your own, original, individual work written in your own words.

The final deadline for you to submit any of the standard five lab reports for credit will be **11:59 pm on December 5th**. Concessions for missed lab deadlines for the five standard labs will not be provided after the last day of classes in the term under any circumstances. Concessions will not be provided for more than two labs during a term under any circumstances. Students who have illnesses or unavoidable circumstances

affecting their ability to submit more than two labs should apply for a request for academic concession withdrawal from the course.

Final Exam: 35%

Date and time TBD. Please consult the final exam schedule before making travel plans. **Writing the final exam is required to pass the course.**

Essential Components

In order to pass this course you must:

- Complete and submit a minimum of **three** lab reports for grading
- Achieve a total lab grade of 50% across all five lab exercises.
- Achieve a minimum grade of 30% on the final exam

Students who complete these components but have an overall grade of less than 50% of the total will receive a grade of F.

Academic Integrity

Students are required to abide by all academic regulations set as set out in the University calendar, including standards of academic integrity. Violations of academic integrity (e.g. cheating and plagiarism) are considered serious and may result in significant penalties. UVic Libraries has resources on **how to properly cite information**.

Academic Accommodations

Through the UVic Centre for Accessible Learning (CAL), students can register for academic concession and accommodations. Please familiarize yourself with the information (**regulations and guidelines**). If you plan make use of any of these policies, you will need to release your accommodation letter so I can view it.

If you have been given a test/exam time accommodation, you will have your exam and quiz times adjusted to include the multiplier as outlined in your accommodation letter.

University Statements and Policies

Attendance and Absences

Medical documentation for short-term absences is **not required** as of the Spring 2021 term (approved by Senate). **Attendance is important.** Students who cannot attend due to illness are asked to notify their instructors immediately. If illness, accident, or family affliction causes a student to miss the final exam or to fail to complete any assignment by the end of the term students are required to submit a **request for academic concession**. Undergraduate student academic concession and deferral policies are also detailed on the **Undergraduate Academic Calendar**.

Important Academic Dates and Deadlines

September 16 - Last day for 100% tuition reimbursement from dropped courses
September 19 - Last day for adding first-term courses
September 30 - Tuition deadline & National Day for Truth and Reconciliation (holiday)
October 7 - Last day to drop courses for 50% tuition fee
October 13 - Thanksgiving (university closed)
October 31 - Last date to withdraw without penalty
November 10 - 12 - Fall break
December 3 - Last day of classes
December 6 - First day of exams

Class Schedule

Lecture schedule is approximate, but I expect it to roughly follow this timeline.

Week	Date	Lecture	Lab
1	—		—
	Sept 4	Course Introduction & Charting the Heavens	
2	Sept 8	The Copernican Revolution	Lab 1: Night Lab
	Sept 11	Radiation	
3	Sept 15	Light and Matter	
	Sept 18	Telescopes	
4	Sept 22	The Sun	Lab 2: Spectra of Gases and Solids
	Sept 25	Stars I	
5	Sept 29	Stars II	—
	Oct 2	The ISM & Star Formation	
6	Oct 6	Stellar Evolution: Low Mass Stars	—
	Oct 9	Midterm Exam	
7	Oct 13	**Thanksgiving (University Closed)**	Lab 3: CMD
	Oct 16	Stellar Evolution: High Mass Stars	
8	Oct 20	Supernovae	—
	Oct 23	Neutron Stars and Black Holes	
9	Oct 27	The Milky Way I	Lab 4: Size of Our Galaxy
	Oct 30	The Milky Way II	
10	Nov 3	Galaxies I	
	Nov 6	Galaxies II	
11	Nov 10	**Fall Reading Break**	—
	Nov 13	Large Scale Structure	
12	Nov 17	Cosmology I	Lab 5: Size of the Universe
	Nov 20	Cosmology II	
13	Nov 24	The Early Universe I	—
	Nov 27	The Early Universe II	
14	Dec 3	Review	