ASTR 102 - EXPLORING THE COSMOS (20210)

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.

Spring 2021 - Syllabus

Professor Julio F. Navarro

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Course Webpage: http://www.astro.uvic.ca/~jfn/Astr102.htm
Office hours: Virtual meetings available upon request

Class times: Mon-Thurs 13:00-14:20 on zoom. Recordings will be made available after each lecture. See the course page on Brightspace (bright.uvic.ca) for details.

Textbook

Astronomy Today 8th or 9th Edition by Chaisson & McMillan
Book is optional, but it may be useful to follow lectures and for extra readings

Course will cover topics from Chapters 1-5 and 16-28
Purchasing only those chapters is fine. Reading expected before each class.
You will also need an **ASTR 102 Lab Manual!**

Grading

Homework quizzes:	15%
In-class polls:	10%
Packback:	15%
MidTerm Exam:	15%
Lab Section:	20%
Final Exam:	25%

1. 10 homework quizzes, roughly one per week. These will be sets of ~15 timed multiple-choice questions. MidTerm and Final Exams will follow a similar format.
2. In-class evaluations using polls. 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. You **must** do the labs and pass the Lab Section to pass the course. No exceptions.
4. Packback participation is required. See statement below.
5. Examinations are *individual*.
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 the work you submit **must** be your own.

See http://www.uvic.ca/library/research/citation/plagiarism/ for more information

Lecture Schedule

Lecture	Date	Topic	Reading
1	11 Jan	Our Home	1.1-1.4, 1.6
2	14 Jan	Astronomy as Science	2.1-2.4, 2.5, 2.7
3	18 Jan	Messengers of the Cosmos	3.1-3.5
4	21 Jan	The Atom's Inner Workings	4.1-4.3
5	25 Jan	The Tools of Astronomy	5.2-5.3, 5.5
6	28 Jan	The Sun	16.1-16.3
7	Feb 1	Stars I: Luminosity, Temperature	17.1-17.3
8	Feb 4	Stars II: Distances, Mass and Other Properties	17.5-17.7
9	Feb 8	Stellar Evolution: Low Mass Stars	20.1-20.3
10	Feb 11	Stellar Evolution: Massive Stars	20.4-20.6
	Feb 15	BC Family Day	No Class!
	Feb 18	Reading Break	No Class!
11	Feb 22	Supernovae	21
12	Feb 25	Neutron Stars and Black Holes	22
	March 1	Mid Term In-Class Exam	
13	March 4	The Milky Way	23.1-23.3
14	March 8	Milky Way Formation and Galactic Centre	23.4, 23.6-23.7
15	March 11	Galaxies I	24.1-24.3
16	March 15	Galaxy Collisions and Dark Matter	25.1-25.3
17	March 18	Large Scale Structure	25.5,26.1
18	March 22	Cosmology I	26.2-26.4
19	March 25	Cosmology II	26.5-26.7
20	March 29	The Early Universe I	27.1-27.3
21	April 1	The Early Universe II	27.4-27.6
	April 5	Easter Monday	No Class!
22	April 8	Review	

Packback Syllabus Statement

Participation is a requirement for this course, and the Packback Questions platform will be used for online discussion about class topics. Packback Questions is an online curiosity community where you can be fearlessly curious and ask BIG questions about how what we're studying relates to life and the real world.

Writing amazing questions and answers on Packback will:

-Help you develop writing skills necessary for any career path
-Reinforce the imperative skill of justifying thoughts and claims with credible evidence- and then citing the evidence!
-Enhance critical thinking sought out by employers
-Deepen your understanding of the course content by gaining diverse insights and perspectives from your peers

My goals for using Packback are for us to develop and maintain an active and inclusive discussion forum to supplement the learning experience.

Your participation on Packback will count towards **15%** percent of your final grade.

In order to receive your points per week, you must post **1 Question and 2 Answers per week relevant to our class subject matter** per week. Participation in a minimum of 10 weeks is needed to get full participation points.

Before you start posting, be sure to read the **Community Guidelines** found in the tutorial on Packback. If your post doesn't follow the Packback Community Guidelines, there is a chance it will be removed and you won't receive points for that post.

There will be a **Sunday 11:59 PM deadline** for submissions in your community each week.

Note: it takes 24 hours for the Packback team to moderate a post and send a coaching email. If by any reason your post is moderated because it does NOT meet the Community Guidelines, you will need to edit and re-publish your post to receive credit for the week. This is why it is important that you complete your Packback questions and responses far before the deadline in case your post is moderated.

How to Register on Packback:

You will receive a welcome email from holla@packback.co prompting you to finish registration and payment.

Our class link is here:

https://questions.packback.ca/communities/f4de3b0d-f249-4c7f-a285-a553745fef4e/curiosity-feed/

Packback has already created an account for you with your school email, *all you need to do is reset your password*. This email may be directed to spam or filtered out, so make sure you do a thorough scan of your inbox if you can't find the email.

Backup Registration Instructions:

If you search your inbox and still can't find the welcome email, or if you are new to the course, you may manually register by following the instructions below:

1. Navigate to https://questions.packback.co and click “Register as a new student”.
   Note: If you already have an account on Packback you can login with your credentials.

2. Make sure to register with the email address used to register for the course and real first name and last name.

3. Enter our class community’s Community Lookup Key into the “Join a new Community” module on your dashboard. Please note, the following Community Lookup Key is only for locating the community; it is NOT a coupon code or access code.

   Our Community Lookup Code: 28fd06cd-2936-475a-bc5d-281c4c55bb38

4. Follow the instructions on your screen to finish your registration.

If you have ANY questions or concerns regarding Packback throughout the semester, please contact the customer support team at holla@packback.co!

For a brief introduction to Packback Questions and why we are using it in class, watch this video: vimeo.com/packback/Welcome-to-Packback-Questions