

150A - UNIVERSE

moons | planets | one star

Course Description

In this class we will study patterns in nature, from the small scales of pinecones to the large scales of planets and solar systems.

What you will learn

- Scientific investigation of the solar system.
- Discussion of current theories and models in science news.
- Investigation of observational evidence and patterns in the solar system.

Why it matters

In the era of big data with JWST and HST, observations have never been more clear or defined. In this class you will be a citizen scientist, actively involved in the process of solar system science.



Instructor

Dr. Sophia

Natalia

Cisneros



\ email sofcis94@uw.edu

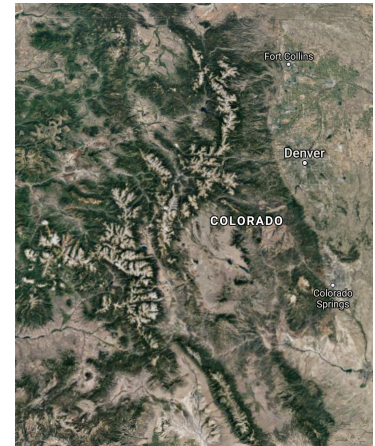
dates 3 Jan - 10 Mar, 2023

lecture Tue/Thur 1-2:20pm ARK 147

office hours After class every day 2:20-2:50

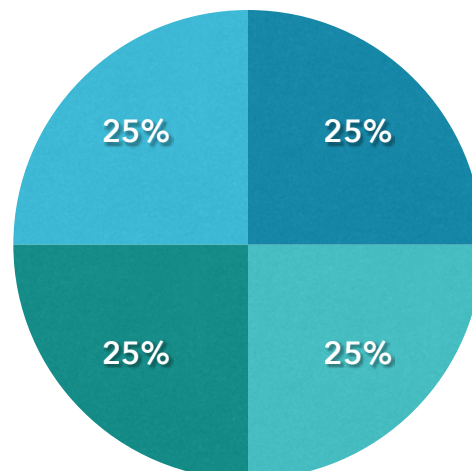
This class in a nutshell

- * 10 Textbook & online Homework. Lowest 2 will be dropped. (summative) 25%
- * 20 Online short lecture quizzes Quizzes and Demoquizzes. No high stakes cumulative exams. Lowest 2 quizzes will be dropped. (summative and formative) 25%
- * 10 Science News Group Discussions. Lowest score will be dropped. (formative) 25%
- * Labs, during quiz sections. Lowest 1 will be dropped. (formative) 25%. 5 data driven labs & Discovery activities.



- Discussions 25%
- Quizzes 25%
- Homework 25%
- Demoquiz & Labs 25%

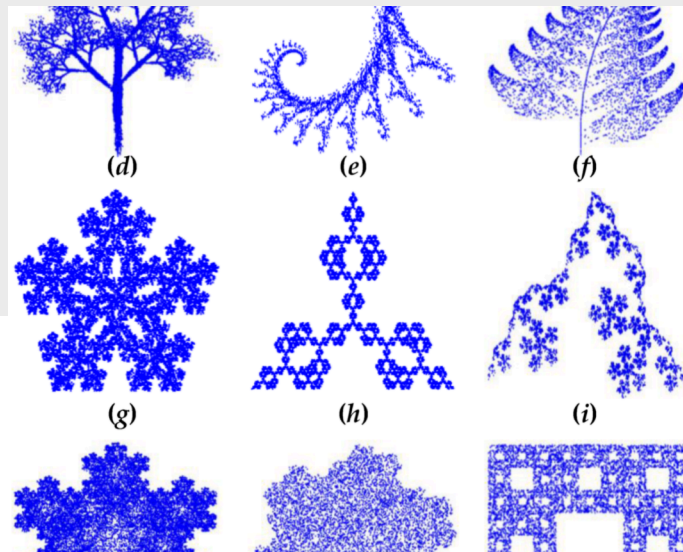
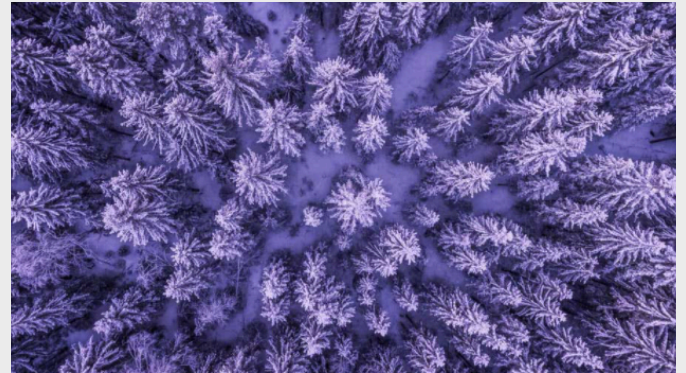
Grades



PROFESSOR CISNEROS

PhD Physics | Assistant Teaching Professor | Astronomy UW

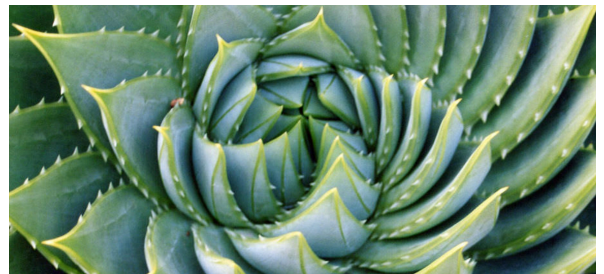
physics and astronomy data driven patterns in nature interest me immensely.



TENTATIVE SCHEDULE



week	- UNDER CONSTRUCTION- - TOPICS
1	The Scale of everything. Humans as pattern recognition machines.
2	Laws of motion, history and pinecones
3	Light and telescopes
4	Terrestrial Worlds
5	Atmospheres of Venus, Earth and Mars
6	Asteroid Belt
7	Giant Planets
8	Oort Cloud and beyond
9	Formation of planetary systems and exoplanet observations
10	Life in the Universe



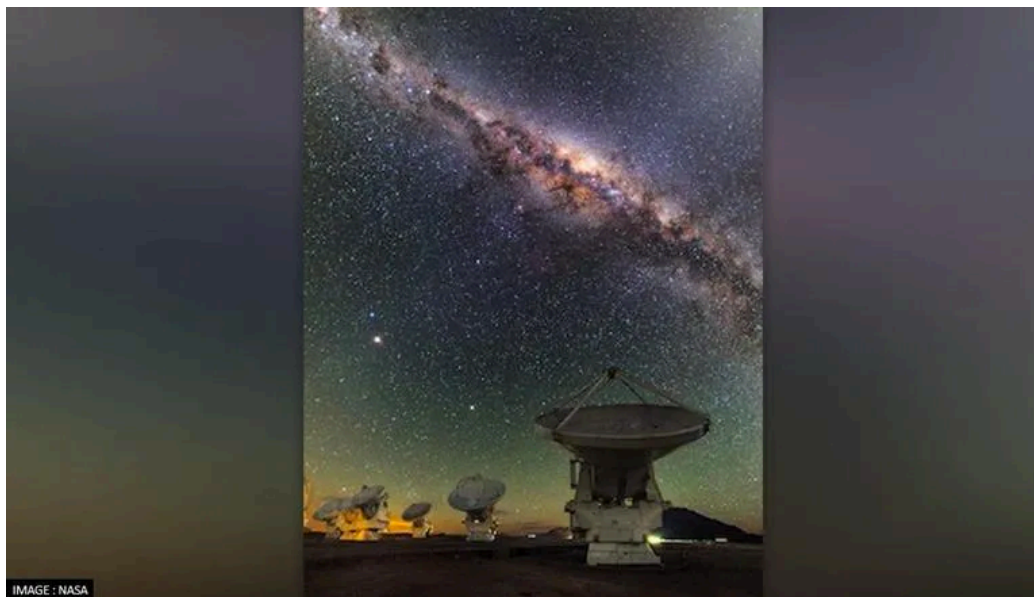
"I am burdened with glorious purpose" - Loki

Accommodations

If you have learning differences that are aided by accommodations, please talk to your teaching team as soon as possible so we can make the best adjustments. We're all happy to have you in the class, and so, please let us know how we can support your learning.

Course Work

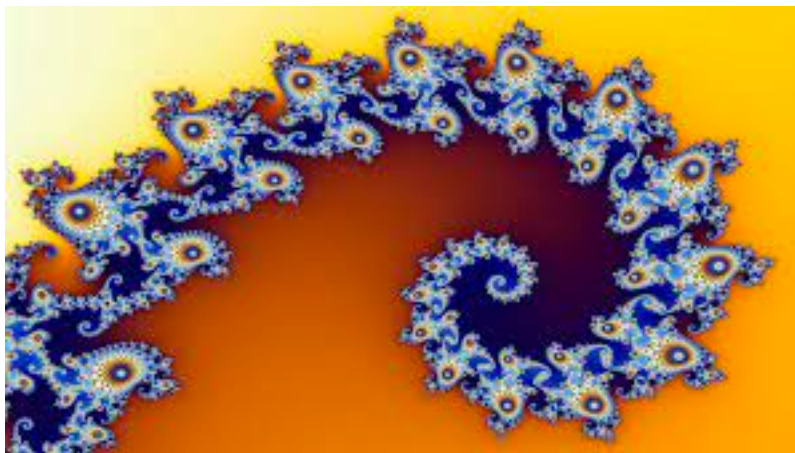
Make-up work not allowed, Due to the large lecture size. We will drop 1 assignment in each of the 4 categories to cover illness or family losses. If you miss more than 1 assignment in each group, then your grade needs to reflect that.



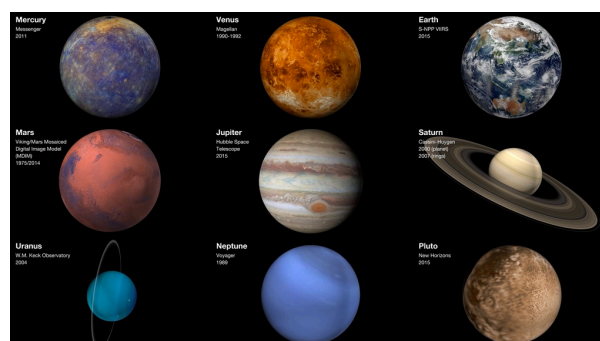
READING SCIENCE NEWS

DISCUSSIONS

"We can disagree and still love each other unless your disagreement is rooted in my oppression and denial of my humanity and right to exist." James Baldwin



- ◆ PLEASE Commit to a space that is safe and courageous for all members of your group, by respecting differences and supporting diversity of thought.
- ◆ PLEASE Find Science that is new and interesting, spend at least 30 minutes reading science news before you compose your original post, 15 minutes before you post a reply/question to a classmates post.
- ◆ PLEASE make fact based arguments which employ the scientific method, use citations (url links are fine), and kind.



REQUIRED TEXT & E-HOMEWORK



Understanding Our Universe by Sarah Palen et al. (EDN) ISBN 4th Edn.

ISBN: 978-0-393-88776-1
must have access to the ebook,
Smartwork. Your code must be used in
the Canvas class to activate your
Smartwork (online homework) this is
required.