# ASTR 10 – Stellar Astronomy
## Spring 2024

**Class days and time:** T/Th, 1:3o-3:45 pm
**Class Locations:** Tuesdays in S56, Thursdays in PLT

**Instructor:** Caitlin Kepple (she/they)
**Instructor email:** kepplecaitlinmarie@fhda.edu
**Office hours:** Tu 10:00am-12pm in PST Village
Th 3:45-4:45pm in S46-A
Th 10-11am on Zoom

Ever heard the phrase "*We are star stuff*"? In this class, we'll explore exactly what Carl Sagan meant when he made this statement many decades ago. Stellar Astronomy is about the stars—and everything in between them. During our exploration of star science, we will also investigate the current and historical understandings of stellar astronomy from a variety of perspectives. We'll use real-world data to build knowledge and skills around astronomy as a science, while also interrogating the traditional view of science as an "objective" pursuit. We will also draw on knowledge from several disciplines and cultures to help us understand the forces that shape our view of science as individuals and broadly in the US.

## Course Learning Goals
Throughout this course, we will pursue the following set of skills related to studying astronomy:

- Appraise the benefits to society of astronomical research concerning stars and stellar systems.
- Evaluate the impact on Earth's characteristics of the evolution of stars and stellar systems.
- Evaluate astronomical news items or theories about stellar astronomy based upon the scientific method.
- Describe ethical dilemmas arising out of contemporary scientific research and application from a variety of perspectives among local and/or global communities
- Understand and articulate the relevance and impact of astronomy research on an individual, community, and societal level
- Draw on and integrate lived experiences related to science to construct a shared understanding of astronomical knowledge and research

## Inclusivity Statement
As a starting point for creating a welcoming learning environment, we will refer to the Inclusive Astronomy Recommendations and actively work to improve on the practices they recommend. Materials in this course will strive to center the experiences of historically marginalized groups in astronomy using an intersectional lens. We will draw on different ways of knowing and learning astronomy, both historically and today. Additionally, we will work as a class to further identify how we are maintaining internalized biases about scientific knowledge and what perspectives are being left out of the conversation.

## Course Texts
-*Astronomy*, by OpenStax (available in print for $60 or as a free PDF here)
-Selected readings available on Canvas each week

## Important Dates

April 19: Last day to add classes
April 20: Last day to drop classes with no record
May 27: Memorial Day Holiday (no classes)
May 31: Last Day to withdraw ("W") from courses
June 19: Juneteenth Holiday (no classes)
June 24-28: Final Exams

## Grade Breakdown

Grades are based on a combination of note-taking, in-class assignments, a larger project, and final exam grades—each of which is described more below. Each assignment type is constructed so that success in the class is possible via a wide variety of methods (not just one make-or-break assignment).

> The grade breakdown for the course:
> Pre-Class/In-Class Assignments (lowest 2 dropped each) - 35%
> Notes Recap Assignment - 5%
> Wrap-up "Quizzes" (lowest dropped) - 25%
> Special Interest Project - 20%
> Final Exam - 20%

**Late work policy:** There is a 24-hour buffer period for all assignments with no penalty. If it is between 1-10 days late, there is a 5% penalty. For more than 10 days late there is a 10% penalty. You can submit any assignment up until Friday of Week 11 at 11:59pm. ***This is a hard cutoff date at the end of the quarter.***

## Course Structure

Our course is designed so that everyone can construct their astronomy knowledge from the ground up and access the material with a variety of learning styles, starting with short in-class assignments before moving on to the quizzes and special interest project. <u>For more details, rubrics and make-up options for each item, see the Canvas page.</u>

**Pre-synchronous work – Videos, Reading, and Assignment (15%)**
  o You can find the assigned videos and reading for each class session on Canvas (the schedule below is only tentative). As you complete the videos and readings, you should take notes and complete a brief assignment *before* coming to class. **Treat this as you would a _homework_ assignment!**

**Notes Recap Presentation (5%)**
  o Early in the quarter, your working group will sign up for a date to "share" your reading/video notes with the rest of the class. For this presentation assignment, you'll complete the notes as a group before that class session, and then go over them with everyone at the beginning of class. Sign-ups will be during the first week of class.

**In-class Activities (20%)**
  o We will have in-class activities every class day (thus attendance is important!). These will mostly be submitted in group format, though sometimes individually on Canvas. They are graded on completeness (70%), correctness (20%), and timeliness (10%). If you are absent, you can still complete these, albeit without the aid of the instructor or your peers to help you.