

Instructor: Professor Travis Barman
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Office: Kuiper Space Sciences, Room 436
Office Hours: 2:00 to 3:00pm Tuesday,
or by appointment

Grad. Teaching Asst. Tyler Meng (tmeng@arizona.edu)
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Office Hours: TBD (or by appointment)

Schedule: Tuesday and Thursday, 12:30 – 1:45pm,
Kuiper Space Sciences room 308

Course Objectives

The Earth is one planet in our Solar System and our Solar System is one of many thousands of known planetary systems. During this course we will explore various topics to help place the Earth (and Humanity) in a broad cosmic context. Both planetary and stellar properties will be covered. The course will introduce you to the concepts and techniques used in astronomy and planetary sciences to understand distant worlds.

Learning Outcomes

Upon completion of this course you will be able to identify the important properties of the Sun and its major planets, and explain how these properties compare to other large bodies in the galaxy. Using standard physical and chemical concepts, you will be able to explain current formation models for stars and planets. You will also be able to describe the diversity of planets populating the galaxy and how the properties of these distant worlds compare to the terrestrial and giant planets orbiting our Sun. You will also gain a quantitative understanding of the scale of the Solar System, the Solar Neighborhood, and planetary motions using equations, graphs and observations (e.g., of the Moon, Sun, and/or bright planets or stars).

This syllabus provides important information about the structure and content of the course. Syllabus updates will be posted on D2L as needed.

Textbook: *The Cosmic Perspective* (Bennett, Donahue, Schneider, Voit; 7th ed. or higher). The textbook is not required but strongly recommended for this course. Reading assignments will be from this book and it will be invaluable for preparing for learning the material and preparing for exams.

Grades:	Exams 1,2,3:	40%
	Homework:	20%
	Observing Project:	20%
	Final Exam	20%

90 – 100	A
80 – 89.9	B
65 – 79.9	C
50 – 64.9	D
< 50	E

Exams: There will be three in-class “mid-term” exams. There will be NO make up exams. If your final-exam score is greater than your lowest mid-term score, your final exam score will replace that mid-term score. *If more time is needed to complete exams, you MUST notify the professor and contact DRC at least two weeks in advance to schedule a time to take the exam at the DRC testing facility.* The Final Exam Date/ Time is set by the University, see here: <http://www.registrar.arizona.edu/schedules/finals.htm>
<https://www.registrar.arizona.edu/courses/final-examination-regulations-and-information>

The final for this class is scheduled for **Wed, May 8, 1:00 – 3:00p.m**

Homework/Quizzes: Will be assigned approximately each week and usually due one week after assigned. Your lowest-scoring assignment in this category will be dropped. Most Homework assignments will be administered online at the D2L course page.

Writing Requirement: This semester you will be observing the Moon and preparing a written report along with your observation logs. You will have one opportunity for revision. The details of the assignment will be posted on D2L.

Bonus Points: There will be opportunities to earn bonus points throughout the semester. You may earn up to a maximum of 5 bonus points (these are added to your final course grade).

Requests for incomplete (I) or withdrawal (W) must be made in accordance with University policies, available see: <https://academicaffairs.arizona.edu/syllabus-policies>

Schedule: The following table lists the approximate order of topics:

Week	Topic	Assigned Chapter Reading
1-2	A Modern View of the Universe,	1
	Discovering the Universe for Yourself	2
3	The Science of Astronomy	3
4	Making Sense of the Universe Understanding Motion, Energy, and Gravity	4
5	Light and Matter	5
6-7	Our Star / Star Birth	14/16
8	Star Stuff / Stellar Graveyard	17/18
9	Spring Break	
10	Our Planetary System	7
11-12	Solar System/Planet Formation	8
13	Planetary Atmospheres	10
14	Atmospheres, Jovian Planets	11
15-17	Other Planetary Systems (Exoplanets)	13

Exam 1: Feb. 15th

Exam 2: Mar. 21th

Exam 3: Apr 18th

Final Exam, May 8, 1:00 - 3:00pm

Participating in the course and attending lectures and other course events are vital to the learning process. As such, attendance is *strongly recommended*.

Honors contract: PTYS170B is a Tier One science course available for an honors contract. . For those requiring a contract, please contact the professor and complete this form: <https://frankehonors.arizona.edu/academics/honors-contracts>

Classroom Behavior: Please turn off/disable your mobile phone during class. Students are encouraged to adhere to the UA Policy on Disruptive Behavior in an Instructional Setting. See: <https://academicaffairs.arizona.edu/syllabus-policies>

Posting videos, photos or recordings of lectures, exams, scorecards, etc. online or distributed by any media format is strictly prohibited (this includes social media forums). You may only make recordings for personal learning use and only after obtaining approval from the professor.

Accessibility and Accommodations: Our goal in this classroom is that learning experiences be as accessible as possible. If you anticipate or experience physical or academic barriers based on disability, please let me know immediately so that we can discuss options. You are also welcome to contact the Disability Resource Center (520-621-3268) to establish reasonable accommodations. For additional information on the Disability Resource Center and reasonable accommodations, please visit <http://drc.arizona.edu>.

If you have reasonable accommodations, please plan to meet with me by appointment or during office hours to discuss accommodations and how my course requirements and activities may impact your ability to fully participate.

Please be aware that the accessible table and chairs in this room should remain available for students who find that standard classroom seating is not usable.

*If more time is needed to complete exams, you should notify the professor and contact DRC at least **two weeks in advance** to schedule a time to take the exam there.*

You are strongly encouraged to review the general university policies for this course found here: <https://academicaffairs.arizona.edu/syllabus-policies>