

Syllabus

Astronomy 170B, Section 003/005

The Physical Universe

Fall 2020

Lectures: Tu/Th: 11:00 AM - 12:15 PM
R P Harvill Bldg, Rm 150 (For Flex/In-Person Modality)
Anywhere via Zoom! (for Live Online Modality)

Instructor: Dr. Erika Hamden
Office: Steward Observatory 222 (N.B.- I will not be in my office this semester)
(520) 621-9524
hamden@email.arizona.edu – Include “170B” in the e-mail title. Please e-mail Andrew Sevrinsky (TA, info below) with questions before contacting Professor Hamden.
Office Hours: Weekly Wednesday 11:00 AM - 12:00 PM on Zoom or by appointment
ATTEND OFFICE HOURS!

Teaching Assistant: Andrew Sevrinsky
sevrinsky@email.arizona.edu – Include “170B” in the e-mail title
Office Hours: Weekly Thursday 2 PM – 3 PM on Zoom or by appointment
ATTEND OFFICE HOURS!

Meeting times for Live Online teaching: A remote option will be available throughout the semester. We will meet Tuesday and Thursday from 11 AM to 12:15 PM by Zoom for Lectures and discussion. Zoom links will be the same for every class and available via D2L. When appropriate, the class will be split into discussion groups on Zoom. All classes will be recorded and posted on D2L for asynchronous viewing.

Meeting times and patterns for Flex/In-person teaching: When the COVID-19 situation permits teaching on campus, Flex/In-person students will have the option to attend in-person lectures. Due to the size of enrollment for this class, Flex/In-person students will be split into up to 4 groups, meeting at least once every two weeks. Our in-class meetings will be live Zoomed so that students in the Live Online section can attend and participate.

Face coverings are required in our classroom: Per UArizona’s Administrative Directive, face coverings that cover the nose, mouth, and chin are required to be worn in all learning spaces at the University of Arizona (e.g., in classrooms, laboratories and studios). Any student who violates this directive will be asked to immediately leave the learning space, and will be allowed to return only when they are wearing a face covering. Subsequent episodes of noncompliance will result in a Student Code of Conduct complaint being filed with the Dean of Students Office, which may result in sanctions being applied. The student will not be able to return to the learning space until the matter is resolved.

Physical distancing is required in our classroom: During our in-person class meetings, we will respect CDC guidelines, including restricted seating to increase physical distancing and appropriately-worn face coverings. Per UArizona's [Administrative Directive](#), face coverings that cover the nose, mouth, and chin are required to be worn in all learning spaces at the University of Arizona (e.g., in classrooms, laboratories and studios). Any student who violates this directive will be asked to immediately leave the learning space, and will be allowed to return only when they are wearing a face covering. Subsequent episodes of noncompliance will result in a Student Code of Conduct complaint being filed with the Dean of Students Office, which may result in sanctions being applied. The student will not be able to return to the learning space until the matter is resolved.

- The [Disability Resource Center](#) is available to explore [face coverings and accessibility considerations](#) if you believe that your disability or medical condition precludes you from utilizing any face covering or mask option. DRC will explore the range of potential options as well as remote course offerings. Should DRC determine an accommodation to this directive is reasonable, DRC will communicate this accommodation with your instructor.

Classroom attendance:

- **Attendance is NOT part of your grade.** All classes will be recorded and posted online if you need to watch later. There is no penalty for missing class.
- If you feel sick, or may have been in contact with someone who is infectious, stay home. Except for seeking medical care, avoid contact with others and do not travel.
- Notify your instructors if you will be missing an in person or online course.
- [Campus Health](#) is testing for COVID-19. Please call (520) 621-9202 before you visit in person.
- Visit the [UArizona COVID-19](#) page for regular updates.

Remote/online only after Thanksgiving: After the Thanksgiving holiday, we are scheduled to move to remote teaching. That means that we will meet via Zoom as at the start of the semester.

Class Recordings:

- **All classes will be recorded on Zoom and will be posted to D2L.** I will attempt to only record my slides and my video feed. If students do not want to be identified by name, please contact me. View [FERPA Privacy Protection guide](#) here.
- For lecture recordings, which are used at the discretion of the instructor, students must access content in D2L only. Students may not modify content or re-use content for any purpose other than personal educational reasons. All recordings are subject to government and university regulations. Therefore, students accessing unauthorized recordings or using them in a manner inconsistent with UArizona values and educational policies are subject to suspension or civil action.

Quizzes on D2L (Tentatively Scheduled):

Tuesday, September 15th
Tuesday, October 20th
Tuesday, November 10th
Thursday, December 3rd

Final Exam: Tuesday, December 15th, 10:30 AM -12:30 PM, On D2L

Required Textbook: *The Cosmic Perspective, 9th ed.* By Bennett, et al (Pearson)
With *Mastering Astronomy* website

Course materials are being delivered digitally via D2L through the Inclusive Access program. Please access the material through D2L on the first day of class to make sure that there are no issues with delivery so any problems can be addressed quickly. You automatically have access to the course materials FREE through **September 6th, 2020**. You must take action (even if you have not accessed the materials) to opt-out if you do not wish to pay for the materials, and choose to source the content independently. **The deadline to opt-out is 9PM MST September 6th, 2020**. If you do not opt-out and choose to retain your access, the cost of the digital course materials will appear on your Bursars account. Please refer to the Inclusive Access FAQs at <https://shop.arizona.edu/textbooks/Inclusive.asp> for additional information.

Website: <http://D2L.arizona.edu>

Course Learning Objectives:

Upon completion of this course, students will be able to:

- understand the nature and application of physical science
- apply ideas and processes beyond the classroom
- recognize the complexity of many scientific issues
- speak and write about scientific knowledge
- appreciate the relative scale of objects, rates of change, linear and nonlinear growth
- critically analyze and interpret data and results presented in tables, graphs and charts

as well as perform appropriate mathematical calculations

- read and understand scientific literature from popular sources such as magazines and newspapers

Course Overview:

Astro 170B is a three-credit GenEd class intended to offer breadth of knowledge and methods of inquiry. By exposing students to the study and understanding of the universe around them, this course is designed to foster independent, creative, and interactive learning, prompting students to think about themselves, others, and social organizations in new and insightful ways. The objective is not necessarily to memorize facts or formulae about the universe, but rather to understand the importance of scientific inquiry, critical thinking, and experiment in your life.

Grades:

Your final grade for this course will depend on the in-class exams, the final, and all other assignments, with the following weighting:

	Number	Points Value for each	Total
Quizzes	4	50	150
Final	1	150	150
Homework	5	45	225
Writing Assignments	3	75	225
Labs	2	50	100
Observing Project	1	150	150
Total:			1000

Grades will be posted as soon as possible after the assignment is collected on D2L. Any questions, disputes, or mistakes must be identified and brought to either the TA or Prof. Hamden's attention within 3 business days of the grade being posted. After that, all grades are finalized, although questions are still answered.

At the end of the semester, I will determine if a curve from the standard grading scale is necessary. A curve has not been used in the past, but remains an option.

Deadlines:

Please strive to turn all assignments in by the due date.

You have one free no question's asked 3-day-late (72 hours after the due date/time) turn in for one non-exam assignment that can be used by you in case of dire need. Please inform either the professor or the TA on the day the assignment is due to use this late turn in. Sometimes everyone has a difficult day. Assignments can be turned in early if desired.

If you get coronavirus or have other extenuating circumstances which cannot be met by the above 3-day-late policy, please inform either the Professor or the TA.

Quiz Make Up Policy:

There are 4 45-minute quizzes throughout the semester, administered on D2L and open book. The lowest score of the 4 will be dropped. If you miss a quiz, that is the score that will be dropped. Quizzes will be available to start on D2L over a 24-hour period, with 45 minutes available to complete once started.

Observing Project:

There will be one long-term observing project to be conducted over the course of the semester, focused on observing the moon and its phases. Because we don't have access to the University

of Arizona telescopes, this will have to be done on your own with observations of the moon from wherever you are located. The exact details of this assignment will be posted on D2L.

Other Assignments:

Homework is assigned on D2L and must be completed by the due date. Three writing assignments will all be assigned throughout the course and should be submitted electronically via turnitin.com. You will have the opportunity to get feedback on one writing assignment and submit a revised draft at the end of the semester. There will be two labs during the semester. These will be available via D2L and can be turned in online. Students can work in groups over Zoom or alone on the labs.

A variety of other policies:

For any in-person classes, Masks are mandatory.

NO smoking, eating, drinking (except water), or pets are allowed in class. Please **turn off** your cell phones and avoid disrupting the students around you, even if not explicitly described in this section! Be respectful of the other students who want to learn.

Absence and Class Participation Policy

The UA's policy concerning Class Attendance, Participation, and Administrative Drops is available at: <http://catalog.arizona.edu/policy/class-attendance-participation-and-administrative-drop>

The UA policy regarding absences for any sincerely held religious belief, observance or practice will be accommodated where reasonable, <http://policy.arizona.edu/human-resources/religious-accommodation-policy>.

Absences pre-approved by the UA Dean of Students (or Dean Designee) will be honored. See: <https://deanofstudents.arizona.edu/absences>

Classroom Behavior Policy:

To foster a positive learning environment, students and instructors have a shared responsibility. We want a safe, welcoming, and inclusive environment where all of us feel comfortable with each other and where we can challenge ourselves to succeed. To that end, our focus is on the tasks at hand and not on extraneous activities (e.g., texting, chatting, reading a newspaper, making phone calls, web surfing, etc.).

Students are asked to refrain from disruptive conversations with people sitting around them during lecture. Students observed engaging in disruptive activity will be asked to cease this behavior. Those who continue to disrupt the class will be asked to leave lecture or discussion and may be reported to the Dean of Students.

Threatening Behavior Policy

The UA Threatening Behavior by Students Policy prohibits threats of physical harm to any member of the University community, including to oneself. See <http://policy.arizona.edu/education-and-student-affairs/threatening-behavior-students>.

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.

Code of Academic Integrity

Students are encouraged to share intellectual views and discuss freely the principles and applications of course materials. However, graded work/exercises must be the product of independent effort unless otherwise instructed. Students are expected to adhere to the UA Code of Academic Integrity as described in the UA General Catalog. See: <http://deanofstudents.arizona.edu/academic-integrity/students/academic-integrity>.

The University Libraries have some excellent tips for avoiding plagiarism, available at <http://www.library.arizona.edu/help/tutorials/plagiarism/index.html>.

Selling class notes and/or other course materials to other students or to a third party for resale is not permitted without the instructor's express written consent. Violations to this and other course rules are subject to the Code of Academic Integrity and may result in course sanctions. Additionally, students who use D2L or UA e-mail to sell or buy these copyrighted materials are subject to Code of Conduct Violations for misuse of student e-mail addresses. This conduct may also constitute copyright infringement.

UA Nondiscrimination and Anti-harassment Policy

The University is committed to creating and maintaining an environment free of discrimination; see <http://policy.arizona.edu/human-resources/nondiscrimination-and-anti-harassment-policy>

Our classroom is a place where everyone is encouraged to express well-formed opinions and their reasons for those opinions. We also want to create a tolerant and open environment where such opinions can be expressed without resorting to bullying or discrimination of others.

Additional Resources for Students

UA Academic policies and procedures are available at <http://catalog.arizona.edu/policies>

Student Assistance and Advocacy information is available at
<http://deanofstudents.arizona.edu/student-assistance/students/student-assistance>

Confidentiality of Student Records

<http://www.registrar.arizona.edu/personal-information/family-educational-rights-and-privacy-act-1974-ferpa?topic=ferpa>

Subject to Change Statement

Information contained in the course syllabus, other than the grade and absence policy, may be subject to change with advance notice, as deemed appropriate by the instructor.