

Astronomy (UVU: ASTR 1040)

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Course Description: Students will study the formation of the universe, the life cycle of stars, galaxies, and the solar system. We will explore interesting topics such as constellations and black holes. The course includes observational exercises including the possible use of binoculars and telescopes. This is a survey course that will stress the historical and descriptive aspects of our knowledge of astronomy. The major aim will be to give each student an appreciation and understanding of the scope and content of our Universe. Most of the homework will be done online, so all students are required to have the district AUA signed to participate in class. If at any time the student's permission is revoked, the student must transfer to another course. While you can enjoy and appreciate the many fascinating objects and "pretty pictures" in astronomy, you cannot properly study astronomy without numbers and some very basic manipulation of those numbers (math). Calculators may be used on any homework, quizzes, or tests.



Concurrent Enrollment: UVU credit for ASTR 1040 is available.

Please visit <http://www.uvu.edu/concurrent/> for details about admissions and registration. You must be admitted to UVU no later than the [admissions deadline](#), and register for this section of ASTR 1040 no later than the [registration deadline](#). *If you drop this course, or wish to switch from CE to non-CE Astronomy, you need to drop the course through UVU no later than [drop deadline](#), or you will have a "W" on your permanent college transcript. This applies even if you move out of LPHS boundaries. You must drop the UVU course separately from dropping the LPHS course.* There is no option for an Incomplete grade for Concurrent Enrollment students.



Learning Objectives: The overall objectives of this course are that the learner will:

- Describe the process of science and tools by which astronomers gain knowledge about the universe, including how our understanding of the universe, its scale and our place in it has changed over time.
- Make connections between the earth's daily and yearly motions and their experience of the sky, including positions and motions of celestial bodies, seasons, phases of the moon, and eclipses.
- Recognize how underlying physical laws govern the formation and evolution of stars, planetary systems, galaxies, and the universe as a whole.
- Apply basic principles of physics and light to the interpretation of astronomical observations and phenomena.
- Identify scientific information conveyed in various forms, including simple equations, numbers, diagrams, charts, and graphs.
- Answer conceptual questions with correct terminology in the fields of stellar astronomy, cosmology, and solar system science.
- Apply concepts learned in the course to observations of the real night sky, current news and events, and representations of astronomy in the media and popular culture.
- Identify at least 31 constellations and 18 bright stars visible from the Northern Hemisphere.

Respect & Responsibility: Two principles that will serve you well in school and throughout life are **respect** and **responsibility**. Please show proper respect to fellow students, teachers, and others by paying attention, being engaged during class lessons, and completing assignments on time. Recognize that **YOU are RESPONSIBLE for YOUR LEARNING**, and take proactive steps to learn the material well. [This document](#) explains expectations in greater detail.

Attendance: You are expected to be on time, and come to class every day. Science learning occurs best through experiences. For this reason, it is critical that each student demonstrates exemplary attendance. Please show respect for your fellow students and teachers by arriving on time, prepared to begin learning as soon as the bell rings. Roll is taken as soon as the tardy bell rings. If you do come into the classroom after the tardy bell rings, you must sign the digital tardy log

in order to be marked tardy (instead of absent). When you are absent, you are expected to review the lesson material in Canvas for the day(s) you missed, complete any assignments on time, and otherwise be prepared to return to school ready for the next lessons.

Electronic Communication Devices (ASD Policy 5250): In accordance with state law, students are prohibited from using electronic communication devices during classroom hours, except for a permitted use.

- “Electronic communication device” means a non school-issued electronic device, including but not limited to a cell phone, tablet, smartwatch, earbuds, or other portable device, that can be used for entertainment or communication, regardless of whether or not such device is connected to a network. Fitness trackers which receive notifications but are incapable of responding to notifications are not electronic communication devices.
 - School-issued electronic devices, including Chromebooks and other devices such as laptop computers, tablets, or e-readers that are “checked-out” or loaned to students, are not “electronic communication devices” for the purpose of this policy.
- Electronic communication devices, except as otherwise described in this policy, shall remain in the students backpack, purse, or other bag during class, and shall not be seen or heard. Fitness trackers will be set so that notifications are not received during class.
- Electronic communication devices may be used on school grounds before and after school, in between class bells, and at lunch.
- If a student needs to communicate with their parent/guardian at any other time, they may use their electronic communication device either in the front office or counseling office, with permission. Permission will be limited to urgent or crisis situations and will not allow for routine or non-urgent situations.
- Electronic communication devices may not be used while using a hall pass, except when used in the front office and counseling office.

Quizzes: Each class day we will have a quiz right as class begins. The quiz will usually consist of a few questions from a previous lesson. Daily quizzes may or may not be scored for a grade, depending on the day. (The door will be locked when the tardy bell rings; please wait patiently while on-time students finish the quiz. You will be allowed in when we discuss the quiz, usually 5 minutes after the bell rings.)

Grading: Grades will be based on points earned divided by points possible. ***Your official grade is always found in Skyward.*** Canvas is used as a convenient way for me to collect assignment scores, but the grade in Canvas is not going to be the same as your official grade in Skyward. Letter grades will be assigned according to this percentage scale:

A : 93.0 - 100	B+ : 87.0 - 89.99	C+ : 77.0 - 79.99	D+ : 67.0 - 69.99	F : 0 - 59.99
A- : 90.0 - 92.99	B : 83.0 - 86.99	C : 73.0 - 76.99	D : 63.0 - 66.99	
	B- : 80.0 - 82.99	C- : 70.0 - 72.99	D- : 60.0 - 62.99	

Textbook: Astronomy from OpenStax, Print ISBN 978-1938168284,
www.openstax.org/details/astronomy Free online textbook--html, pdf, Kindle.

Observing Projects: ***For each unit*** you will be required to complete one observing project. You will do an activity related to astronomy, typically involving the collection of data from your own personal observations of the sky. You will then write a report clearly summarizing your adventures, results, observations and conclusions. Projects should be done thoroughly and should be well presented. It is to your advantage to be as descriptive and careful as possible. Observing projects can be found in Canvas. Please do them as early in the unit as you can. You never know if the last few days of the unit will have clear skies. You will not be excused from the project if you put it off until the end, and the skies were cloudy that night. Good luck, and have fun!

Homework Policy: *Assignments are due at the start of class.* We will be using [Canvas](https://alpine.instructure.com) for many assignments. (alpine.instructure.com) Online Homework will be due at the start of the next time we have class. You may redo and resubmit that assignment (with no penalty) up until 7:45 am of the class period that the unit exam is scheduled. This **late work deadline** includes any 'extra time' that is called for in student accommodations. Once the unit test has been given, you will no longer be able to submit assignments for a higher grade. **Scores for assignments cannot be changed after test day, even if you are absent that day.** If students do not have reliable internet service at home, they will be expected to complete online homework at school.

Canvas: Most of your homework for this course will be completed online through the Alpine School District Canvas. You can access CANVAS at alpine.instructure.com, or using the Canvas app on your phone/tablet. The best way to access the course content in Canvas is through the FRONT PAGE, not the grades, calendar, assignments, or any other mode. Always go to the FRONT PAGE of Canvas to find everything you need. In the event of absence, illness, extended leave, or school dismissal, all lesson material and assignments will be available through Canvas. This class uses the app MyOpenMath to deliver online assignments through Canvas. In compliance with district and state privacy policies, no student data other than name and school email address is ever shared with third-party apps. There may be additional apps used for this class, all of which will adhere to district privacy policies. **When you are absent, you are expected to review the lesson material in Canvas for the day(s) you missed, complete any assignments on time, and otherwise be prepared to return to school ready for the next lessons.**

Tests: **Please bring a #2 pencil on test day.** *You may use one 3 x 5 inch note card*, with any information on it you would like, provided that you prepare it yourself, and it is handwritten. Tests will be graded and returned by the next class period. Study and prepare adequately for each test and do your best. Then be satisfied with the score that represents your best effort, whether or not that is the score you desire. **There are no test retakes in Astronomy.**

Final Exam: We will have a final exam on the last day of the semester. It will count the same as a regular test. The final exam will consist entirely of questions about constellations and bright stars learned throughout the semester.

Video Recording: From time to time we may be video recording activities that happen during class. Sometimes these videos may be made available to other class members who were absent that day. They will be on a private server through our Canvas site, and will not be made available on public websites. Canvas allows that only those people actually enrolled in the course will have access to these videos. Videos of lessons may also be used for professional development activities. Student names and other student information will never be released in conjunction with video lessons. Students should be aware that security cameras are in operation in the classroom 24/7.

Academic Honesty: Students are expected to complete their own work, and to be honest in the learning environment. Any of the following activities will result in zero credit for the test, assignment, or project: (with no chance to makeup points)

- **CHEATING** is the act of using or attempting to use or providing others with unauthorized information, materials or study aids in academic work. Cheating includes, but is not limited to, passing examination answers to or looking at other students' tests, or preparing or copying others' academic work.
- **PLAGIARISM** is the act of appropriating another person's or group's ideas or work (written, computerized, artistic, etc.) or portions thereof and passing them off as the product of one's own work in any academic exercise or activity. Unless otherwise stated on a specific assignment, the use of AI, such as ChatGPT, to submit written work as your own is considered plagiarism.
- **FABRICATION** is the use of invented or falsified information, research or other findings.

Participation: I expect you to adhere to the values of THE PEAK, and demonstrate the qualities of a knight:

- Tenacious
- Honorable
- Empathetic
- Purposeful
- Exemplary
- Accountable
- Kind

