

Introductory Astronomy



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Textbook Essentials of Astronomy I, ebook. Online on school website.

Grading

	Qtr 1
Laboratories, Outside Activities	20%
Midterm Examination	20%
Final Examination	20%
Assignments	20%
Unit Quizzes	20%

Course Description:

Introductory Astronomy is a basic course that explores the current understanding the universe. This course will cover the following topics:

- Measurements, Scientific Notation, Significant Figures, Order of Magnitude, Scaling Models
- The Scientific Method, Analysis and Interpretation of Cosmic data
- The Big Bang Theory
- Historical Perspectives of Astronomy
- The Law of Gravity and the Laws of Motion
- Telescopes and methods of Observation
- Spectrum Analysis and Basic Spectroscopy
- Structural description of the known planets, Methods for discovering new planets
- Meteors, Asteroids, and Comets
- Stellar Evolution & Remnants, White Dwarfs, Neutron stars, Black Holes, Pulsars
- The Milky Way Galaxy, Local Groups, Super Clusters Probes of Intergalactic Space, Quasars

Laboratories, Hands-on Activities:

This course will focus on learning the basic skills used in Astronomy. Emphasis will be put on using The Scientific Method to observe, question, hypothesize, experiment, and draw conclusions regarding astronomical data. There will be several laboratory experiences, including outdoor observations where you will learn the constellations, and how to operate a telescope. Part of this course will require actual observations of the skies through telescopes.

Examinations:

There will be a midterm examination given at the end of 1st semester. This exam will cover the first half of the course. Then there will be a final examination given at the end of 2nd semester. This exam will cover all the material presented in the course. The exams will be on information presented during lectures, laboratories, and discussions.

Assignments:

There will be several assignments given that will help you internalize the knowledge you gain in class. Some assignments will be done in class, others will be done at home. A few assignments will take several weeks to complete.

Quizzes:

There will be a unit quiz at the end of each unit. There are a total of 10 units, therefore there will be 10 quizzes.

YOUR RIGHTS

In this class you have the right to:

1. A safe learning environment that is free from physical or verbal abuse, intimidation, or harassment, including any and all forms of sexual harassment, obscenity, indecent, or inconsiderate behavior.
2. Report any and all problems or concerns to the teacher without feeling intimidated or afraid that your grade or standing will suffer.
3. Receive a meaningful and useful education. This means that the teacher will be well prepared, have a variety of learning activities available, and will not waste time by giving you meaningless "busywork".
4. Have a learning environment that is free of drugs and alcohol.
5. Get the help you need from the teacher in order to learn the subject matter. Do not be afraid to ask the teacher for help at any time.
6. Know what your grade is at any time. Just ask. Your grades will be posted a minimum of once per week.
7. Make choices and to express your own thoughts and ideas. Be yourself and to have fun while learning.

POLICIES AND PROCEDURES CONTRACT

This class will use Classroom Dojo, which is a classroom management tool that allows the teacher to award or punish a student, based on behavior and preparedness. Following the rules and being prepared helps your grade, whereas violating the rules and not being prepared hurts your grade. In general, for every point lost in Classroom Dojo equates to a loss of 1% off your total grade.

- Materials:** You will have access to an iPad on a daily basis. You may choose to use the iPad for taking notes. Many assignments will also be done on the iPad. You must also bring with you a writing utensil and a notebook. If you must borrow a writing utensil, then you will be required to give up a shoe or your cell phone as collateral.
- Quieting:** When the bell rings, you are expected to be quiet. The student(s) who violate this rule will lose points in Classroom Dojo. You are required to raise your hand if you have questions. Failure to do so will also cost you points.
- Tardies:** A tardy has occurred when the bell rings and you are not in your seat. You will also get a tardy if you attempt to line up at the door prior to the bell ringing at the conclusion of class. Not only will you receive a tardy, but you will also lose points in Classroom Dojo. The third tardy will cost you one hour of restitution and one hour per tardy after that. The fifth tardy will bring about a parent meeting. The sixth tardy will cost you 5 hours of restitution.
- Absences:** You are required to keep up on all your work, regardless of being absent. See late work policy below. School policy says that you are absent if you miss more than 15 minutes of class time. On the 5th absence parents/guardians will be notified. On the 6th absence, you will be required to make up time by attending restitution. As per district policy, after 10 absences you will lose all credit for the class.
- Late work:** You will have **one** extra day for each day you are absent to make up your work. After that, you will lose 10% on the assignment up to the 5th day. After the 5th day, your work will not be accepted and you will receive a zero on that assignment.
- Extra credit:** Only occasional extra credit will be given, such as during "Giving it back". You cannot use extra credit to make up for incomplete, late, or missing assignments. Extra credit will only be added to your final grade at the end of the quarter.
- Leaving class:** Leaving class is not allowed unless it is an absolute emergency or if you have been called to the office. You must carry a hall pass with you. You will be given two free passes per quarter. After that, you will lose credit in Classroom Dojo for each time you must leave class. Do not abuse this policy or you may not be allowed to leave class at all.
- Disruptions:** A disruption includes talking out of turn, talking back to the teacher, or doing anything that requires the teacher to stop instruction. For the first offense you will get a verbal warning, and it will cost you a point in Classroom Dojo. For the second offense, you will be excused from the class to meet with the vice principal, you will lose credit in Classroom Dojo, and it goes on your school record. For the third offense, you will meet with your parents and/or guardians and the principal, it goes on your school record, and you may be removed from the class.

- Cheating:** Cheating will not be tolerated. For the first offense you will receive a zero on that assignment and loss of points in Classroom Dojo. The second offense will result in an F for the quarter.
- Language:** School policy is to address teachers as Mr., Mrs., or Miss. Coach or principal is also acceptable. Swearing or vulgar language will not be tolerated. You will receive a verbal warning for the first offense and loss of points in Classroom Dojo. Multiple offenses will cost you more points, and you may be referred to the vice principal. Using the "F" word will result in your immediate suspension from school for one day.
- Classroom:** You are not allowed to sit on desks, putting feet on tables, throwing trash in drawers, sinks, or on the floor, or write on school property. If you violate these rules, you will lose credit in Classroom Dojo. The classroom must be cleaned up and put back in order prior to leaving class. Some classes will require the use of the laboratory. The same rules apply in the lab. Any violations will cost you points in Classroom dojo, and you will be required to cleanup after yourself.
- Electronics:** iPads will be used throughout this course. You will sign a care and use agreement before you are allowed to use the iPads. iPads are for school use only. You are not allowed to use the iPads without permission. The iPads are to be left on your desk at all times. The iPads may not be removed from the classroom. Cell phones must be on your desk in plain sight. We will use cell phones from time to time in class for specific activities. If you are caught using a cell phone at all, without permission, you will lose your cell phone and it will be given to the vice principal. Any violations will cost you points in Classroom Dojo. If you have your own tablet device or laptop that you would like to use in class, then please talk personally with the teacher to make proper arrangements to use these devices in class.
- Other rules:** Violating any of the following will cost you points in Classroom Dojo: Lining up at the door before the bell rings, asking the teacher "what are doing today?", forgetting to put your name, date, and period on assignments, not taking notes during class, changing seats without the teacher's permission, talking while the teacher is talking, violating the school dress code in any way, doing other work or reading in class while the teacher is teaching, falling asleep in class, eating food in class (bottled water is ok), not taking the class seriously, not being prepared for class each day, not pushing in your chair when you leave class, touching things in the classroom without the teacher's permission, doodling and drawing while the teacher is teaching, and not being respectful to the teacher and/or fellow students.
- Testing:** All testing for this course will be done online. The tests may be taken on any device that has the Internet. Tests may be taken at home or at school. If you do not have access to a computer at home, then please talk with the teacher. You may use school computers or iPads to take tests. Tests are also available in a written format if needed. All students must score 80% or higher on all tests. Students are required to retake tests until 80% is achieved. Students may only score 80% on a retake.