



Astronomy

Course Syllabus

Instructor Information

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Course Description

The Astronomy course is offered as a broad survey of our modern understanding of the cosmos and methods scientists have used to build this knowledge. Beginning close to home with the Sun-Earth-Moon system, and extending to the furthest reaches of the observable universe, lecture and research topics will attempt to provoke curiosity about our place in the universe. Through lab work, assignments, and research projects, students will explore our knowledge of the cosmos. It has been said that Astronomy should be a humbling experience. This course is designed with an attempt to spark a life-long interest in the ongoing human adventure of Astronomy.

Curricular Information

Required Course Reading: Scientific articles and laboratory instructions will be provided in class.

Additional Resources: The science notebook that will be created during this course will be extremely valuable for notebook checks, organization, and studying for tests/quizzes. Take good care of them!

Daily Time and Effort Expectations: Students will be required to finish and turn in all assignments on time, or no credit will be given. It is strongly recommended that students spend at least 10 minutes per day reviewing their science notebook even if they are not given homework. Check grades on familyLink regularly, and study for tests/quizzes. Since we have a four day week here at STEM, attendance is very important. It is not always possible to make up labs due to absences.

Course Evaluation: Students must complete at least 70% of science labs per semester to receive credit. More than 6 days of unexcused absenteeism per semester will result in loss of credit and may impact the path to graduation.

Grade breakdown as follows:

Classwork - 30%

Labs - 30%

Tests/quizzes - 25%

Final Exam - 15%

Grading Scale

Grade	Percentage	Proficiency descriptors
A	90-100	Assignments are fully completed and of excellent quality; student demonstrates a depth of understanding of course content and/or necessary skills; student shows superior level of initiative and seeks to extend knowledge beyond basic requirements. Errors are rare or nonexistent.
B	80-89	Assignments are fully completed and typically of above average quality; student consistently demonstrates understanding of course content and /or necessary skills; student is conscientious and meets all requirements with few errors.
C	70-79	Assignments are generally complete and of good quality; student understands many of the concepts and can demonstrate skills, with occasional errors or incomplete tasks.
D	60-69	Assignments are generally incomplete or of poor quality; student does not demonstrate understanding of concepts or skills that were covered; student makes frequent errors. Motivation may be an issue.
F	0-59	Inadequate evidence exists to discern the skills or concepts the student understands. Work is poorly done, if at all. Overall achievement level is inadequate to pass the course.

Pacing Guide Semester One

Sun-Earth-Moon System	Phases of the moon, eclipses, solar energy, and Kepler's Law's of Planetary motion will be examined.
Our Place in the Universe	Beginning with our home planet, students will learn about our "cosmic addresss". Scale models of the solar system and gaining an understanding of the vastness of space on larger and larger scales will be explored.
Learning From Other Worlds	Focusing on the formation of stars and planetary systems, students will explore theories and evidence for star life cycles, evolution of the universe from nuclear

	fusion and dramatic stellar death.
The Search for Habitable Planets and the Search for Life in the Universe	Methods used for detecting exoplanets and searching for possible signs of life will be the focus of this unit. With a combination of lecture, lab activities, and research projects, we will explore the most current technology used to find new worlds in the universe.

Academic Honesty Policy:

“On my honor, I will maintain the highest possible standards of honesty, integrity, and personal responsibility. This means I will not lie, cheat, or steal, and as a member of this academic community, I am committed to creating an environment of respect and mutual trust.”

Violations of this code include, but are not limited to:

- Copying another student’s work or allowing your work to be copied
- Allowing someone other than yourself to complete work in your name
- Using unauthorized assistance on an assessment
- Allowing someone other than yourself to take an assessment
- Falsifying or manipulating data
- Submitting the same work for multiple courses without instructor’s permission
- Giving answers to other students
- Lying to an instructor
- Plagiarism. Direct copying is plagiarism. Only original work may be submitted for an academic course.
- Tampering with or destroying the work of another student

Consequences for Academic Dishonesty: At the instructor’s discretion, the student **will** lose partial or full credit for the assignment. Student will be on notice that the incident will be recorded in the gradebook and parent will be informed. Future academic dishonesty incidents will result in a grade of zero for the assignment, a meeting with the Principal, and possible loss of credit, suspension, or expulsion.