

Astronomy Course Expectations & syllabus

Camp Verde High School

Instructor: Mr. Malloy

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Text: TBD

Items needed: Scientific calculator \$8.00-\$12.00 at Wal-Mart or Office Max, A three ring binder (notebook), and a mechanical pencil.

Classroom expectations: Students are required to be in their seats ready for class with calculators, pencils and notebooks when the bell rings. A tardy will be given if the student leaves class to retrieve these items from their locker after class begins. _____ initial. **Cell phones are not allowed to be on during class. They should be off and on the table unless otherwise instructed. Any out of class communication will result in the phone being turned over to Mr. Showers.** _____ initial.

Students are required to take notes and keep completed assignments in their notebooks.

Notebooks will be graded twice a year for credit. _____ initial

Homework expectations: Students will be assigned homework periodically. If you experience problems with the homework, you should attend the tutorial period in room 201. **Homework will be assigned during the spring break.** I have found that students require this continuity in learning the sciences.

Labs (read carefully): While most lab activities will be conducted in class. Once a month a lab will take place outside under the stars. Attendance is 20 % of the course grade and is mandatory. **Do not take this course unless you can commit to this.** _____ Initials

Exams: Tests will be given approximately every two weeks. A final exam is given at the end of each semester that counts as 20% of the semester grade.

Grades:

A= 100%-89.5%

B= 89.4%-79.5%

C=79.4%-69.5%

D=69.4%-59.5%

F =59.4%-0%

Grades are based on student performance on homework, labs, tests, notebooks and class participation. Extra credit may occasionally be offered only if all other assignments have been completed.

Parent Signature: _____ **Student Signature:** _____

This astronomy course is designed to cover the AZ. State standards for physical science within the context of astronomy. It is intended as a two semester lab science as well as a lecture/demonstration course. Further, it is intended to inform and educate the student in areas such as chemistry, physics, astrobology, and comparative planetology.

Labs will include:

- 1) lunar and solar observations,
- 2) plotting the orbit of Mars, the orbit of the Moon,
- 3) The Earth's orbital velocity,
- 4) Rotation of the Sun,
- 5) Spectral classification of the stars,
- 6) Additionally, students will Draw the Solar System to scale,
- 7) The apparent motion of the stars,
- 8) build a simple refractor telescope,
- 9) Determining distance by parallax,
- 10) the HR diagram and stellar evolution,
- 11) Diameter and rotation of the Sun, ellipses and orbits,
- 12) Relativity of motion, the orbit of Venus as it appears from Earth,
- 13) Determining the circumference of the Earth.
- 14) Students will also photograph and image process deep space objects or planets.

Lecture will include:

- 1) Archeoastronomy
- 2) the history of astronomy, Classical Astronomy
- 3) Kepler's laws,
- 4) a detailed survey of the planets, (Comparative Planetology)
- 5) Our moon
- 6) comets,
- 7) asteroids,
- 8) meteors
- 9) moons,
- 10) stellar and galactic classification,
- 11) gravitational interactions,
- 12) stellar evolution,
- 13) time dilation as it pertains to space travel..

Field Trips will include:

- 1) Kitt peak observatory
- 2) Lowell observatory
- 3) V - V ranch (Archeoastronomy)