Astronomy

Session 3-4 : Thursdays 1:30pm - 3:00pm

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Course Description:

This course will serve as a survey of astronomy and our place in the universe. Students will learn about the composition of our solar system, the stars, and the universe itself, from the smallest atoms to the vast galactic clusters. Most of what we know about the universe is through the study of the Electromagnetic Spectrum; therefore, students will receive hands-on instruction in how to study light and the instruments used to do so.

Materials:

- A composition notebook or other single subject spiral notebook, college ruled
- Dedicated section in a binder for notes, handouts and build instructions for labs.
- Pencils, pens, colored pencils

Expectations:

Students will be expected to attend as many sessions as possible as knowledge built during this course is cumulative and dependent upon retention. There will be small reading assignments outside of class but most of the learning will take place in person.

The student notebook will be periodically reviewed by me and will account for 25% of the overall grade earned. Students are expected to take notes/draw sketches during any direct instruction or observation.

There will be one daytime solar observation through a telescope and one evening session of open sky viewing. Details will be provided later. Instruction will be given on the safe use of telescopes and equipment.

Grading:

20% Attendance
25% Notebook checks
30% Participation: To include attendance, preparation for labs, proper care of equipment
25% Lab and project “builds”

Course Outline:

Week 1: Introduction, Class rules/Expectations, Ice Breaker
Week 2: History of Astronomy, Development of Telescopes
Week 3-4 : The Solar System
Week 5-6: Constellations and Mapping the Sky
Week 7-8 The Study of Light
Week 9-10 Stellar Life Cycles
Week 11-12 Galaxies and the Rest of the Universe
Week 13-14 Modern Astronomy, Astrobiology
Week 15-16 Final Projects