



Astronomy Honors Syllabus

Course Details

Course Code: 325100HW

Subject: Science

Required Prerequisites: Biology

Suggested Prerequisites: Algebra and Chemistry

Recommended Grade Levels: 11th and 12th

Duration: Yearlong

Course Availability: A listing of when this course is offered in the current school year can be found on the [VirtualSC Current Course Offerings page](#) (opens in a new window).

Class Times: This course has scheduled instructional meetings. Information on scheduled meetings for each course is communicated by the teacher. Recordings of these meetings will be available for students unable to attend. Students should expect to spend 7-9 hours a week working on this course independently, in addition to any live meetings, and are expected to meet the deadlines posted in the course pacing guide.

Textbook: None

Required Course Materials: None

Outside Websites: A list of links to websites and online textbooks used in this course can be found here: [VSC Course Links Document Folder \(opens in a new window\)](#). Students will need to be able to access all of these links to access all course materials.

Final Exam: Students in this course take a VirtualSC final exam. Details on scheduling and taking final exams can be found on the [Final Exam Page](#) (opens in a new window) of the VirtualSC webpage.

Course Description

Astronomy is an honors-level science course that emphasizes a broad range of astronomical, astrophysical, and cosmological processes. By combining content with labs, online resources, and real-time astronomical observations with discussions,

students explore established and newly-revealed discoveries of the cosmos. Major areas of study include motions of the earth and its satellite, the nature of light, terrestrial and Jovian planets, asteroids and comets and meteoroids, stellar evolution, galaxies, exoplanets, the Big Bang, the early universe, and the future of the universe.

Scope and Sequence

- Unit 0: Course Overview and Introduction
- Unit 1: Observing Our Night Sky
- Unit 2: Nature of Light and Telescopes
- Unit 3: Life and Death of Stars
- Unit 4: Incredibly Massive Objects and Gravity
- Unit 5: Our Amazing Sun
- Unit 6: Earth and Its Satellite
- Unit 7: Planetary Motion and Gravitation
- Unit 8: Our Solar System: Terrestrial and Jovian Planets
- Unit 9: Celestial Nomads and Exoplanets
- Unit 10: Galaxies and Quasars
- Unit 11: Cosmology

Students will be sent a full list of assignments and their due dates at the beginning of the course.

Current pacing guides for this course can be found on the [Current Course Offerings page](#) (opens in a new window) on the VirtualSC website.

Course Grades

The final grade in this course results from the following:

- Coursework: 80%
- End of Course Exam: 20%

VirtualSC Details

Information on VirtualSC student guidelines, policies and technology requirements can be found in the [VirtualSC Student Support Portal \(opens in a new window\)](#).