

ASTRONOMY

Astronomy is the study of the vast universe around us. We start with the earth and sweep outward past the moon to the planets of the solar system and our sun, one of the billions of stars in our galaxy. On our journey through the universe, we explore an exciting realm populated by black holes, quasars, red giants, white dwarfs, and more. Astronomy is taught in a modern planetarium, which accurately simulates the nighttime sky, showing the positions and motions of the stars and planets. The real sky can be viewed through the sixteen-inch reflector telescope in the N. A. Richardson Astronomical Observatory. Students planning to transfer to a four-year institution and major in astronomy should consult with a counselor regarding the transfer process and lower division requirements.

Contact Information

Division: Science (PS - 148)

Division Phone Number: (909) 384-8645

Faculty Chair: Anna Tolstova (%20atolstov@sbccd.edu), M.S.

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- Astronomy Associate of Science Degree (<http://catalog.valleycollege.edu/degree-certificate-program-index/astronomy/astronomy-as-degree/>)

ASTRON 120 3 Units

Introduction to Astronomy

Lecture: 54 contact hours

Advisory: MATH 095 or MATH 096 and ENGL 101 or ENGL 101H or eligibility as determined by the SBVC assessment process.

This is an introduction to astronomy, the ultimate adventure. Our very big universe can be described by a small set of knowable rules through a logical method called science, where the excitement of an evolving and sometimes violent universe of stars and galaxies is explored. Topics include the night sky, motions of the Sun, the Moon, and the planets, light, properties and life cycles of stars with a detailed look at our Sun, galaxies, and the origin of the universe.

Associate Degree Applicable

Transfers to both UC/CSU

ASTRON 125 1 Unit

Astronomy Laboratory

Lab: 54 contact hours

Prerequisite/Corequisite: ASTRON 120

This course is the companion course to ASTRON 120 Introduction to Astronomy. Laboratory work provides a hands-on enrichment and deeper understanding of topics discussed in the astronomy lecture. Topics include use of star maps, identification of constellations, determination of orbits, rotation rate, and mass of celestial objects using astronomical methods of observation and analysis. Students will also perform 3-D modeling of the solar system and constellations, study the nature of light, lenses and telescopes, make some direct observations with telescopes, and utilize astronomical software.

Associate Degree Applicable

Transfers to both UC/CSU

ASTRON 222 1-3 Units

Independent Study in Astronomy

DIR: 54 contact hours

Prerequisite: ASTRON 120

Advisory: ENGL 101 or ENGL 101H as determined by the SBVC assessment process.

Students with previous course work in Astronomy may do assigned projects involving research and analysis of selected topics. This independent study is for students who are interested in furthering their knowledge of Astronomy. Prior to registration, a written contract must be prepared jointly by the instructor and the student.

Associate Degree Applicable

Transfers to CSU only