

ASTRONOMY**ASTRO 3 Solar System Astronomy**

Presents a survey of the sun, planets, asteroids, comets, and the growing list of new solar systems around other stars for non-science majors. Recommended Preparation: MATH 154.

Transfer Credit: CSU; UC.

Section	Days	Times	Units	Instructor	Room
62815	MW	09:30AM-10:50AM	3.00	R.Nolthenius	828
62816	M	06:00PM-09:05PM	3.00	R.Nolthenius	828

ASTRO 8A Observational Astronomy

Involves observatory lab projects on stars, planets, the moon, galaxies, and in-class labs and demos on cloudy nights. Prerequisite: ASTRO 3 OR ASTRO 4 OR ASTRO 10 OR ASTRO 11 OR concurrent enrollment; MATH 154.

Transfer Credit: CSU; UC.

Section	Days	Times	Units	Instructor	Room
62817	T	07:15PM-08:05PM	1.00	R.Nolthenius	705
&	T	08:15PM-10:20PM		R.Nolthenius	705

ASTRO 9A Astrophotography

Covers photographic theory and practice at Cabrillo Observatory using telescopes, cameras, and dark room to develop, print, and mount photographs taken both on film and digitally.

Transfer Credit: CSU.

Section	Days	Times	Units	Instructor	Room
62818	W	07:00PM-07:50PM	1.00	R.Nolthenius	705
&	W	08:00PM-10:05PM		R.Nolthenius	705

Includes optional weekend camping trip for dark-sky work.

ASTRO 9B Astrophotography

Similar to ASTRO 9A, but includes more advanced projects as well as prime focus photography, advanced techniques, and opportunities for digital imaging and processing. Prerequisite: ASTRO 9A.

Transfer Credit: CSU.

Section	Days	Times	Units	Instructor	Room
62819	W	07:00PM-07:50PM	1.00	R.Nolthenius	705
&	W	08:00PM-10:05PM		R.Nolthenius	705

Includes optional weekend camping trip for dark-sky work.

ASTRO 9C Astrophotography

Similar to ASTRO 9A and 9B but includes more creative and advanced projects: experimental testing, advanced composition, CCD imaging and digital processing. Prerequisite: ASTRO 9B.

Transfer Credit: CSU.

Section	Days	Times	Units	Instructor	Room
62820	W	07:00PM-07:50PM	1.00	R.Nolthenius	705
&	W	08:00PM-10:05PM		R.Nolthenius	705

Includes optional weekend camping trip for dark-sky work.

ASTRO 27 Field Astronomy at the Pinnacles

An intensive one weekend field lecture class in general astronomy, using direct visual and telescope observations in explaining planetary geology, solar system, star and galaxy formation, and evolution, and the origin of the universe. Includes car-camping at Pinnacles National Monument. Corequisite: GEOL 27.

Transfer Credit: CSU.

Section	Days	Times	Units	Instructor	Room
62813	TH	05:00PM-10:50PM	1.00	R.Nolthenius	706
&	FS	03:30PM-12:00AM		R.Nolthenius	OFFCAM
&	Arr.	Arr.		R.Nolthenius	OFFCAM

Meets Thursday 10/8. Weekend field trip 10/9-10. + 3 hrs 20 min arranged. Car camping and hiking required. Mandatory orientation meeting Tuesday 9/1 5:30PM-6:30PM, Room 705. Students will be required to pay a \$15 camping fee (covering both ASTRO 27 and GEOL 27) before obtaining an add slip. See GEOL 27 for fee payment, registration, and camping details.

ASTRO 28E Field Astronomy in the High Sierra

A single-weekend field lecture/lab course in which students will use video-recording techniques to make scientific observations of a lunar grazing occultation from Lake Alpine in the Sierra. Car camping, car pooling required.

Transfer Credit: CSU.

Section	Days	Times	Units	Instructor	Room
64530	TH	05:00PM-09:50PM	1.00	R.Nolthenius	706
&	F	05:00PM-11:50PM		R.Nolthenius	OFFCAM
&	S	08:00AM-11:50PM		R.Nolthenius	OFFCAM
&	SU	08:00AM-10:30AM		R.Nolthenius	OFFCAM

Meets 9/24. Field trip 9/25-27. Car camping, group meals, and \$15 camping fee required. Orientation meeting Tuesday, 9/1, 5:30PM-6:30PM, Room 705. Camping fee must be paid to obtain an add slip. Payment forms for mandatory camping fees will be distributed at the orientation, then payment can be made at the Bookstore. Proof of payment must be presented to instructor to obtain an add slip. Those waiting more than 2 weeks past orientation to process their add slip may have their space given to waitlisted students. Transportation is the student's responsibility. For more detailed information, see instructor's web page at www.cabrillo.edu, "Directory."

⓪/ⓔ indicate open entry classes—open through the 12th week of instruction ◀ indicate writing factor classes; Ⓜ Honors classes;

🌍 indicate multicultural classes; 🏠 indicate health and wellness classes 📺 some sections of this course are taught in a distance education format.