

## ASTRONOMY

### ASTRO 4 Stars, Galaxies and the Origin of the Universe

Surveys the lives of stars and galaxies, and the relationship of life to the origin of universes, for non-science majors. Recommended Preparation: MATH 154.

*Transfer Credit:* CSU; UC.

Section	Days	Times	Units	Instructor	Room
74150	MW	09:30AM-10:50AM	3.00	R.Nolthenius	828
74151	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. Hybrid Requisite: Completion of or concurrent enrollment in the following courses: ASTRO 3 or ASTRO 4. Recommended Preparation: MATH 154.

*Transfer Credit:* CSU; UC.

Section	Days	Times	Units	Instructor	Room
74152	T	07:30PM-10:35PM	1.00	R.Nolthenius	705

### 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
74148	W	05:00PM-11:00PM	1.00	R.Nolthenius	706
&	FS	03:30PM-11:59PM		R.Nolthenius	OFFCAM
&	S	05:30PM-06:20PM		R.Nolthenius	705
&	Arr.	Arr.		R.Nolthenius	OFFCAM

Mandatory orientation Tuesday 2/7, 5:30PM-6:20PM, Room 705. Meets Wednesday 4/18. Field trip 4/20-4/21. Final exam Saturday 5/5. + 1 hr 20 min arranged. Car camping and hiking required. Students will be required to pay a \$15 camping fee (covering both ASTRO 27 and GEOL 27) before obtaining permission to enroll. See GEOL 27 for fee payment, registration, and camping details.

### ASTRO 28K Field Astronomy At Carrizo Plain National Monument

A weekend field course to Carrizo Plain National Monument along the San Andreas Fault to search for evidence of recently discovered Pleistocene comet impact, plate tectonic land forms, and observe a lunar grazing occultation. Includes night sky study of star formation regions, star clusters, galaxies and daytime study of offset stream beds, sag ponds, fault trace, and ancient Chumash cultural site. Two nights camping required.

*Transfer Credit:* CSU.

Section	Days	Times	Units	Instructor	Room
75555	W	05:00PM-10:00PM	1.00	R.Nolthenius	706
&	F	05:30PM-11:00PM		R.Nolthenius	OFFCAM
&	S	09:00AM-11:05PM		R.Nolthenius	OFFCAM
&	SU	09:00AM-11:15AM		R.Nolthenius	OFFCAM
&	S	05:30PM-06:20PM		R.Nolthenius	705

Mandatory orientation meeting Tuesday, 2/7, 5:30PM-6:20PM, Room 705. Meets Wednesday 3/21. Field trip 3/23-3/25. Final meeting Saturday, 4/7. Car camping required. Transportation is the student's responsibility. For more detailed information, see instructor's ASTRO 28 web page at [www.cabrillo.edu/](http://www.cabrillo.edu/) "Directories A-Z."