

CATALOG INFORMATION

Dept and Nbr: ASTRON 12 Title: ASTRON OBSERVTN LAB
Full Title: Astronomy Observational Lab
Last Reviewed: 4/22/2019

Units		Course Hours per Week		Nbr of Weeks	Course Hours Total	
Maximum	1.00	Lecture Scheduled	0	17.5	Lecture Scheduled	0
Minimum	1.00	Lab Scheduled	3.00	1	Lab Scheduled	52.50
		Contact DHR	0		Contact DHR	0
		Contact Total	3.00		Contact Total	52.50
		Non-contact DHR	0		Non-contact DHR	0

Total Out of Class Hours: 0.00

Total Student Learning Hours: 52.50

Title 5 Category: AA Degree Applicable
Grading: Grade or P/NP
Repeatability: 33 - 3 Enrollments Total
Also Listed As:
Formerly:

Catalog Description:
Observational laboratory involves use of small aperture telescopes and binoculars, star charts, constellation identification, celestial coordinate systems, solar and sidereal time system, short exposure and deep-sky astrophotography.

Prerequisites/Corequisites:
Completion of or concurrent enrollment in Astron 2 or 3 or 4 or 5.

Recommended Preparation:
Eligibility for ENGL 100 or ESL 100.

Limits on Enrollment:

Schedule of Classes Information:
Description: Observational lab involves use of small aperture telescopes & binoculars, star charts, constellations identification, celestial coordinate systems, solar & sidereal time system, short exposure & deep sky astrophotography. (Grade or P/NP)
Prerequisites/Corequisites: Completion of or concurrent enrollment in Astron 2 or 3 or 4 or 5.
Recommended: Eligibility for ENGL 100 or ESL 100.
Limits on Enrollment:

Transfer Credit: CSU;UC.
Repeatability: 3 Enrollments Total

ARTICULATION, MAJOR, and CERTIFICATION INFORMATION:

AS Degree:	Area		Effective:	Inactive:
CSU GE:	Transfer Area		Effective:	Inactive:
	B3	Laboratory Activity	Fall 2012	
	B1	Physical Science	Fall 1981	Fall 2012
	B3	Laboratory Activity		

IGETC:	Transfer Area		Effective:	Inactive:
	5C	Fulfills Lab Requirement	Fall 2012	
	5A	Physical Sciences	Fall 1981	Fall 2012
	5C	Fulfills Lab Requirement		

CSU Transfer:	Transferable	Effective:	Fall 1981	Inactive:
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UC Transfer:	Transferable	Effective:	Fall 1981	Inactive:
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CID:

Certificate/Major Applicable:

Not Certificate/Major Applicable

COURSE CONTENT

Outcomes and Objectives:

Provides the student with the theoretical, experimental descriptive and methodological framework to successfully understand the use of astronomical telescopes.

Students participants in this course will have the opportunity to learn the use of astronomical telescopes, motions of the sky astrophotography and the nature of extended stellar objects. They will be able to comprehend and demonstrate such knowledge through lecture, discussion examination and practical exercises.

Topics and Scope:

1. Earth and Sky.
 - A. Divinal motion.
 - B. Annual motion.
 - C. Seasons.
 - D. Coordinate systems.
 - E. Star charts.
2. Optics and Telescopes.
 - A. Lenses and mirrors.
 - B. Image formation.
 - C. Speed and focal length.
 - D. Refracting telescopes.
 - E. Reflecting telescopes.
 - F. Cameras and films.

3. Constellations.
4. Messier Objects.
 - A. Galaxies.
 - B. Nebulae.
 - C. Clusters.
5. Mythology of constellations.

Assignment:

1. Evaluation of student performance will be accomplished through examination.
2. At least one of the following written assignments:
 - A. Comprehensive research paper.
 - B. Analytic essay.
 - C. Report and book reviews.
 - D. Extra credit reports or field assignments.
3. Students will be required to master text material independently outside of class.

Methods of Evaluation/Basis of Grade:

Writing: Assessment tools that demonstrate writing skills and/or require students to select, organize and explain ideas in writing.

Lab reports

Writing
10 - 10%

Problem Solving: Assessment tools, other than exams, that demonstrate competence in computational or non-computational problem solving skills.

Field work, Lab reports, Quizzes

Problem solving
0 - 20%

Skill Demonstrations: All skill-based and physical demonstrations used for assessment purposes including skill performance exams.

Class performances, Field work

Skill Demonstrations
0 - 30%

Exams: All forms of formal testing, other than skill performance exams.

Multiple choice, True/false, Completion

Exams
0 - 40%

Other: Includes any assessment tools that do not logically fit into the above categories.

None

Other Category
0 - 0%

Representative Textbooks and Materials:

Course text written by SRJC Earth/Space Science instructors.

