

COURSE OUTLINE

SECTION I: COURSE INFORMATION

COLLEGE: Los Angeles Southwest College

SUBJECT TITLE: ASTRONOMY

COURSE NUMBER : 1

COURSE TITLE: ELEMENTARY ASTRONOMY

UNITS: 3

CATALOG COURSE DESCRIPTION –Provide a brief description of the course, including an overview of the topics covered:

This is an introductory course in the general principles of astronomy. Topics for discussion include the sun, planets, and other members of the solar system; stars, their motion, composition, and evolution; novae, pulsars, quasars, and galaxies. This course is primarily for non-science majors.

CLASS HOURS:

	Hours per week (for 18 weeks)	Total Hours per term
Lecture hours:	3	54
Lab hours:		
Total hours:	3	54

Note: The Carnegie Rule and Title 5 section 55002 sets forth the minimum standards, which require 3 hours of work per unit of credit (e.g., 1 hour lecture + 2 hours of home work, 3 hours of lab without homework, etc.). Two hours per week of lab with homework = 1 unit; 3 hours of lab per week without homework = 1 unit. Lecture also includes discussion and/or demonstration hours, laboratory includes activity and/or studio hours.

SUBJECT CODE: 092

SUBJECT ABBREVIATION: ASTRON

SPC CODE (assigned by District Office):

ABBREVIATION FOR TRNASCRIPTS (assigned by District Office): ASTRON

DEPARTMENT CODE: 07

TOP CODE (see Taxonomy of Programs at www.cccco.edu/cccco/esed/curric/curriculum.htm):

DEGREE APPLICABLE: No Yes

REPETITIONS:

Number of times can this course be repeated for credit (two maximum): None

How does the repetition of this course meet Title 5 sections 55761-55765 and 58161 requirements?

BASIC SKILLS: NO Yes

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(Title 5, section 55502(d) defines "basic skills as "courses in reading, writing, computation, and English as a Second Language which are designated as non-degree credit courses pursuant to Title 5, section 55002(b).")

COURSE CLASSIFICATION (choose only one):

- Liberal Arts and Sciences
- Developmental Preparatory
- Basic Skills
- Course for Substantially Handicapped
- Occupational

SAM CODE (choose only one):

- A --Apprenticeship (approved for offering to apprentices only)
- B --Advanced Occupational (but not limited to Apprentices)
- C --Clearly Occupational (but not Advanced)
- D --Possibly Occupational
- E --Non-Occupational

CROSS REFERENCE (Is this course listed as equivalent in content to existing college/District courses in another discipline?)

NO Yes (If yes, list courses: (documentation of cross-discipline agreement must be provided)

SPECIAL COURSE FOR STUDENTS WITH DISABILITIES:

NO Yes

PREREQUISITE, CO-REQUISITE, ADVISORY, LIMITATION ON ENROLLMENT

Prerequisites: NO Yes (If yes complete information below)

Subject	Number	Course Title	Units	Validation Approval Date

Coerequisites: NO Yes (If yes complete information below)

Subject	Number	Course Title	Units	Validation Approval Date

Advisories: NO Yes (If yes complete information below)

Subject	Number	Course Title	Units	Validation Approval Date

OTHER LIMITATIONS ON ENROLLMENT (see Title 5, 58106 and Board Rule 6803 for policy on allowable limitations):

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None

Section II: RELATIONSHIP TO PROGRAMS

Relationship to College Programs

COURSE IS AN APPROVED REQUIREMENT FOR AN APPROVED ASSOCIATE DEGREE OR CERTIFICATE PROGRAM:

No Yes If yes, list program(s) below. Approved programs are listed on the State Chancellor's Office website at www.cccco.edu/cccco/esed/curric/inventory.htm

COURSE MEETS GENERAL EDUCATION REQUIREMENTS FOR THE ASSOCIATE DEGREE:

No Yes (If yes indicate area)

Articulation Information

(To be completed in consultation with the College Articulation Officer)

TRANSFER STATUS:

University of California:

Date requested:
UC approval date:

California State University:

Date requested:
College approval date:

GENERAL EDUCATION FOR TRANSFER:

IGETC Certification:

Area Requested:
Date requested:
IGETC approval date:

2nd Area Requested:
Date requested:
IGETC approval date:

CSU Certification:

Area Requested:
Date requested:
CSU approval date:

2nd Area Requested:
Date requested:
CSU approval date:

MAJOR REQUIREMENTS FOR TRANSFER – If the course has been articulated to meet lower divisions major requirements, list each college and the respective major:

CAN NUMBER

Date Requested:
CAN Approval Date:

SECTION III: COURSE CONTENT AND OBJECTIVES

COURSE CONTENT AND OBJECTIVES:

<p>COURSE CONTENT AND SCOPE: OUTLINE TOPICS TO BE INCLUDED IN THE LECTURE PORTION OF COURSE, IF APPLICABLE (Outline reflects course description, all topics covered in class)</p>	<p>Hours per topic</p>	<p>COURSE OBJECTIVES -- Lecture Upon successful completion of this course the student will be able to: (Use action verbs – see Bloom's Taxonomy below for "action verbs requiring cognitive outcomes.")</p>
<ol style="list-style-type: none"> 1. Origins of Astronomy 2. Earth – Moon System 3. Electromagnetic and Telescopes 4. Terrestrial Planets 5. Jovian Planets 6. Comets, Meteors, and Asteroids 7. Origin of the Solar System 8. Stellar Evolution 9. Star Systems 10. Galaxies 11. Cosmology 		<p>As a result of completing this course, students will:</p> <ol style="list-style-type: none"> 1. demonstrate relationships between cause and effect in astronomical systems; 2. use or explain methods of astronomical study; 3. identify, classify and explain the origin of the planets, solar system, galaxy and universe.
<p>Total lecture hours</p>	<p>54</p>	

<p>COURSE CONTENT AND SCOPE: OUTLINE TOPICS INCLUDED IN THE LABORATORY PORTION OF COURSE, IF APPLICABLE (Outline reflects course description, all topics covered in class)</p>	<p>Hours per topic</p>	<p>COURSE OBJECTIVES -- Laboratory Upon successful completion of this course the student will be able to: (Use action verbs – see Bloom's Taxonomy below for "action verbs requiring cognitive outcomes.")</p>
<p>Total lab hours</p>	<p>0</p>	

Bloom's Taxonomy

SIMPLE SKILLS <<----->> COMPLEX SKILLS					
			Critical Thinking		
Knowledge	Comprehension	Application	Analysis	Synthesis	Evaluation
define	translate	interpret	distinguish	compose	judge
repeat	restate	apply	analyze	plan	appraise
record	discuss	employ	differentiate	propose	evaluate
list	describe	use	appraise	design	rate
recall	recognize	demonstrate	calculate	formulate	compare
name	explain	dramatize	experiment	arrange	value
relate	express	practice	test	assemble	revise
underline	identify	illustrate	compare	collect	score
	locate	operate	contrast	construct	select
	report	schedule	criticize	create	choose
	review	shop	diagram	set up	assess
	tell	sketch	inspect	organize	estimate
			debate	prepare	measure
			inventory		
			question		
			relate		
			solve		

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			examine categorize question contrast		
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APPROPRIATE READINGS

Reading assignments may include, but are not limited to the following:

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WRITING ASSIGNMENTS:

Writing assignments may involve, but are not limited to the following (Title 5, section 55002 requires grades to be " based on demonstrated proficiency in subject matter and the ability to demonstrate that proficiency, at least in part, by means of essays, or, in courses where the curriculum committee deems them to be appropriate, by problemsolving exercises or skills demonstrations by students):

Students will answer questions in short essay or hour-exams.
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APPROPRIATE OUTSIDE ASSIGNMENTS:

Out of class assignment may involve, but are not limited to:

Appropriate readings in addition to text. Completion of review questions and vocabulary drills.

APPROPRIATE ASSIGNMENTS THAT DEMONSTRATE CRITICAL THINKING:

Critical thinking may include, but is not limited to analysis, synthesis, and evaluation

Student will evaluate cosmological models, analyze NASA budget, set up equipment for observation, collect data, and relate them to physical laws.

METHODS OF EVALUATION:

A student's grade is determined by the following. Methods of evaluation may include, but are not limited to the following: (Please note that Title 5, section 55002 requires grades to be " based on demonstrated proficiency in subject matter and the ability to demonstrate that proficiency, at least in part, **by means of essays,**" except in courses where, or, in courses where the curriculum committee deems problemsolving exercises or skills demonstrations by students more appropriate:

Essay assignments, tests and quizzes

METHODS OF INSTRUCTION:

Methods of instruction may include, but are not limited to the following:

Lecture, Class discussion

REQUIRED TEXTS:

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Provide a representative list of textbooks and other required reading; include author, title and date of publication:

SUPPLIES:

Provide a list of supplies the college will provide and a list of supplies that the student must provide.

Supplies basic to the delivery of the course content

COMPUTER/INFORMATION LITERACY:

If applicable, explain how computer/information literacy is infused into the course.

As necessary for submission

CULTURAL DIVERSITY:

If applicable, explain how cultural literacy is infused into the course.

SCANS COMPETENCIES (required for all courses with vocational TOP Codes):

SCANS (Secretary's Commission on Necessary Skills) are skills the Department of Labor identified, in consultation with business and industry leaders, which reflect the skills necessary for success in the workplace. Check the appropriate boxes to indicate the areas in where the following skills are developed (please note that all SCANS competencies do not apply to all courses):

RESOURCES

- Manages Time:** Selects relevant goal-related activities, ranks them in order of importance, allocates time to activities, and understands, prepares and follows schedules.
- Manages Money:** Uses or prepares budgets, including making cost and revenue forecasts; keeps detailed records to track budget performance, and makes appropriate adjustments.
- Manages Material and Facility Resources:** Acquires, stores, allocates, and distributes materials, supplies, parts, equipment, space or final products in order to make the best use of them.

INTERPERSONAL

- Participates as Member of a Team:** Works cooperatively with others and contributes to groups efforts with ideas, suggestions and effort.
- Teaches Others New Skills:** Helps others learn needed knowledge and skills.
- Exercises Leadership:** Communicates thoughts, feelings, and ideas to justify a position, encourage, persuade, convince or otherwise motivate an individual or group, including responsibly challenging existing procedures, policies or authority.
- Negotiates:** Works toward agreement that may involve exchanging specific resources or resolving divergent interests.
- Works with Cultural Diversity:** Works well with men and women and with people from a variety of ethnic, social, or educational backgrounds.

INFORMATION

- Acquires and Evaluates Information:** Identifies a need for data, obtains the data from existing sources or creates them, and evaluates their relevance and accuracy.

- Organizes and Maintains Information:** Organizes, processes and maintains written or computerized records and other forms of information in a systematic fashion.
- Interprets and Communicates Information:** Selects and analyzes information and communicates the results of others using oral, written, graphic, pictorial, or multimedia methods.
- Uses Computers to Process Information:** Employs computers to acquire, organize, analyze and communicate information.

SYSTEMS

- Understands Systems:** Knows how social, organizational and technological systems work and operates effectively with them.
- Monitors and Corrects Performance:** Distinguishes trends, predicts impacts of actions on system operations, diagnoses deviations in the functioning of a system/organization, and takes necessary steps to correct performance.
- Improves or Designs Systems:** Makes suggestions to modify existing systems in order to improve the quality of products or services and develops new or alternative systems.

TECHNOLOGY

- Selects Technology:** Judges which sets of procedures, tools or machines, including computers and their programs, will produce the desired results.
- Applies Technology to Task:** Understands overall intent and proper procedures for setting up and operating machines, including computers and their reprogramming systems.
- Maintains and Troubleshoots Equipment:** Prevents, identifies, or solves problems with equipment, including computers and other technologies.

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Section IV: APPROVAL INFORMATION

APPROVAL STATUS:

New Course District Approval Date:
Addition of Existing District Course College Approval Date:
Course Change College Approval Date:
Outline Update College Approval Date: Oct. 30, 02

INDICATE HOW THE COLLEGE PLANS TO MEET THE EXPENSE OF THIS COURSE: An existing course to date

By providing additional funds. Describe:

By canceling class sections. Describe:

By deleting/rotating sections of existing courses: Number of Sections to be deleted:

First year: Second year: Third year:

Will this directly impact other programs on campus No Yes If yes, briefly explain how?

METHOD OF SUPPORT: (Indicate How the college plans to support the propose course)

Number of faculty needed: Full-time: Part-time:

Number of other Staff: Classified: Student Worker:

Classroom type needed:

Equipment: Needed -- List equipment is currently available and what new equipment is needed and indicate funding source for any new equipment.

Supplies needed: -- List supplies and indicate dollar value.

Library/Learning Resources -- List existing and needed Library and Learning Resources, including the cost and funding source for needed resources.

College:	Course Subject:	Course Number:	9/20/02
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CERTIFICATION AND RECOMMENDATION

- This course meets Title 5 requirements for Associate Degree applicable college credit towards an Associate of Arts Degree.
- This course meets Title 5 requirements, but does not satisfy the requirements for an Associate Degree applicable course.

We certify that the information and answers above properly represent this course.