

CATALOG INFORMATION

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Dept & Nbr: AST 203 Title: STELLAR ASTRONOMY

Full Title: Stellar Astronomy

| Units | Course Hours | Per Week | Nbr of Weeks | Course Hours | Total |
|----------|-----------------|----------|--------------|-----------------|-------|
| Max: 3.0 | Lecture | 3.0 | 17 | Lecture | 51.0 |
| Min: 3.0 | Lab | 0.0 | | Lab | 0.0 |
| | Contact DHR | 0.0 | | Contact DHR | 0.0 |
| | Contact Total | 3.0 | | Contact Total | 51.0 |
| | Non-contact DHR | 0.0 | | Non-contact DHR | 0.0 |

Title 5 Category: 01 AA Degree Applic
Grading: GC Credit course for grade or CR/NC
Repeatability: 00 No repeatability allowed or defined
Also listed as:

CATALOG DESCRIPTION:

Stars, star classifications, formations from nebula and of the electromagnetic spectrum which gives the histories of the stars. Leading and current theories of cosmology will be presented, as well as, present day activities of current research.

PREREQUISITES:

COREQUISITES:

RECOMMENDED PREPARATION:

No advisories.

LIMITS ON ENROLLMENT:

SCHEDULE OF CLASSES INFORMATION:

Come with me on a journey into the cosmos, examine the stars and solar systems far beyond our imagination, and wonder at the vastness we call the universe. (Grade or CR/NC)
Transfer Credit: CSU; UC.

ARTICULATION and CERTIFICATE INFORMATION

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|-------------------|----|-------------------|------|-----------|
| ASSOCIATE DEGREE: | | Effective: FALL | 1981 | Inactive: |
| Area: | A | NATURAL SCIENCES | | |
| CSU GE: | | Effective: FALL | 1981 | Inactive: |
| Transfer area: | B1 | PHYSICAL UNIVERSE | | |
| IGETC: | | Effective: FALL | 1981 | Inactive: |
| Transfer area: | 5A | PHYSICAL SCIENCES | | |

CSU TRANSFER: TRANSFERABLE Effective: FALL 1981 Inactive:

UC TRANSFER: TRANSFERABLE Effective: FALL 1981 Inactive:

CAN:

CERTIFICATE APPLICABLE: N NOT CERTIFICATE/MAJOR APPLICABLE

APPROVAL AND DATES

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Version 02 Submitted by: GERALD DEBANE Date: 10/08/1996
 Department approved: Date:
 Curriculum approved: 10/08/1996 Version approved: 10/08/1996
 Prerequisites approved: Last reviewed: 10/08/1996
 Term effective: FALL 1997 Last taught: SPRING 2008 Inactive:

COURSE CONTENT

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OUTCOME AND OBJECTIVES:

1. Understand the physics of stellar formations.
2. Comprehend the connection between the study of the electromagnetic spectrum and the composition of the stars.
3. Know and analyze three types of telescope functions.
4. Describe the direction of present day research.

TOPICS AND SCOPE:

1. The Sun
 - a. The nature of the nearest star
2. Measuring the Basic Properties of Stars
3. The Systematics of Nearby Stars
 - a. The H-R diagram
4. Stellar Evolution
5. Death and Transfiguration of Stars
6. Interstellar Dust and Nebula
7. Companions to Stars
 - a. Binaries
 - b. Multiples
 - c. Possible planetary systems
8. Star Clusters and Associations
9. The Milky Way Galaxy
10. The Local Group
11. Cosmology
 - a. The universe's structure
12. Cosmogony
 - a. A 20th century version of creation

ASSIGNMENTS:

READING ASSIGNMENTS:

Students will be expected to read assigned chapters in the textbook as well as:

1. Selected library journals, examples of which are: Sky and Telescope; Astronomy.

2. Chapters from current books in Astronomy, examples of which are: Brief History of Time by Stephen Hawking; Stonehenge by G.F. de Bane' or other better known authors.

WRITING ASSIGNMENTS:

1. Students will complete the problems at the end of each chapter studied.
2. Write a summary of Planetarium show that has been attended.
3. Write a summary of each chapter with a minimum of 500 words.

OUTSIDE ASSIGNMENTS:

Students are expected to spend at least 2 hours out of class for each hour of lecture doing:

1. Scheduled textbook reading.
2. Assigned library research or reading.
3. Writing of the materials described under Writing Assignments.

ASSIGNMENTS THAT DEMONSTRATE CRITICAL THINKING:

The student will be able to make associations between the subject of astronomy with the following sciences: a) Physics, b) Chemistry, c) Biology and make decisions about the various theories of each discipline that associate with Astronomy.

METHOD OF INSTRUCTION:

Lecture presentations will be implemented and supported by:

1. Personal slides the instructor has taken at various astronomy sites throughout the world.
2. Several portions of the cosmos tapes, developed by Dr. Carl Sagan, will be viewed.
3. Several tapes derived from NASA Library will be shown if available on loan to the College.

METHODS OF EVALUATION:

Students will take several exams which will account for 50% or more of the semester grade. The written work will account for 50% or less of the semester grade.

BASIS FOR GRADING:

The assignment of a grade is based on the level of achievement of the outcomes and objectives of the course outline and is reflected in quantifiable terms in the course syllabus.

REPRESENTATIVE TEXTBOOKS:

Astronomy: From Earth to Universe, Pasachoff, 6th Ed., Brooks/Cole

REASON FOR REVISION

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RESOURCES REQUIRED

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MISCELLANEOUS

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|---------------------------|---------|---|
| Advisory generate desc: | N | NO |
| Area department: | AST | ASTRONOMY |
| Audit flag: | N | NOT AUDITABLE |
| Basic skills: | X | NOT BASIC SKILLS |
| Classification: | A | Liberal Arts and Sciences |
| Cost level: | 01 | |
| Disciplines: | | ASTRONOMY |
| Division: | 02 | MERIDITH RANDALL |
| Faculty service areas: | | ASTRONOMY |
| Fee: | \$0.00 | |
| In-service: | X | NOT IN-SERVICE |
| Level below transfer: | X | NOT APPLICABLE |
| Matric-requiring: | X | Exempt from assessment |
| Maximum class size: | 0 | |
| Maximum wait list: | 0 | |
| Method of instruction: | 02 | LECTURE |
| | 99 | OTHER/UNSPECIFIED METHOD OF INSTRUCTION |
| Non-credit category: | X | NOT APPLICABLE, CREDIT COURSE |
| Open entry/exit: | N | Not open entry/exit |
| Pacs activity: | 1901 | PHYSICAL SCIENCE GENERAL |
| Pacs program project: | 0000 | |
| Preq/coreq generate desc: | N | NO |
| Preq/coreq provisional: | N | NO |
| Preq/coreq reg check: | N | NO PREREQUISITE RULES EXIST |
| Repeat group id: | | |
| Requires instructor sig: | N | INSTRUCTOR'S SIGNATURE NOT REQUIRED |
| SAM classification: | E | Non-occupational |
| Selected/special topic: | N | NOT A SELECTED TOPIC COURSE |
| Special class: | X | NOT A SPECIAL COURSE |
| TOP code: | 1911.00 | ASTRONOMY |
| Workload: | 0.0000 | |