PALOMAR COLLEGE
COURSE OUTLINE OF RECORD FOR
DEGREE CREDIT COURSE

_X_ Transfer course _X_ A.A. degree applicable course

(check all that apply)

COURSE NUMBER AND TITLE:
PHSC 110 - Physical Science--Physics & Astronomy

UNIT VALUE: 4

MINIMUM NUMBER OF SEMESTER HOURS: 96

BASIC SKILLS REQUIREMENTS: Appropriate language and computational skills.

ENTRANCE REQUIREMENTS:

PREREQUISITE: None

COREQUISITE: None

RECOMMENDED PREPARATION: None

SCOPE OF COURSE: The study of selected topics from the fields of physics, astronomy, and their related sciences through lectures, films, demonstrations, and laboratory exercises. A general education course designed particularly for non-science majors; not open to majors in physics, chemistry, or engineering. Especially recommended for teacher training.

SPECIFIC COURSE OBJECTIVES: The successful student will be able to:
1. Demonstrate a general conceptual understanding of introductory physical science (physics and astronomy) which is intended for students who are not majoring in science, engineering, or related fields.
2. Identify, analyze, and explain various physical science concepts and principles.
3. Apply the various physical science concepts and principles.
4. Analyze and solve selected physical science principles.

CONTENT IN TERMS OF SPECIFIC BODY OF KNOWLEDGE:
PHYSICS:
1. Motion and Newton's laws
2. Momentum and energy
3. Gravity and satellite motion
4. Fluid mechanics
5. Thermal energy and thermodynamics
6. Electricity and magnetism
7. Sound waves
8. Light and its properties
9. Atomic and nuclear structure

ASTRONOMY:
1. Solar system
2. Stars and galaxies
3. The universe

LABORATORY:
Selected experiments dealing with the above subject matter.

Additional topics may be included at the instructor's discretion.

REQUIRED READING:
Hewitt, Paul, John Suchocki and Leslie A. Hewitt. Conceptual Physical Science. New York: Harper Collins. 1994.

SUGGESTED READING:
Hewitt, Paul, John Suchocki and Leslie A. Hewitt. Practicing Conceptual Physical Science. 1st edition. New York: Harper Collins. 1994.

Articles from science periodicals or other sources as recommended by the instructor.

REQUIRED WRITING:
Problem-solving exercises on homework assignments and written tests are more appropriate.

OUTSIDE ASSIGNMENTS:

Students are expected to spend a minimum of three hours per unit per week in class and on outside assignments, prorated for short term classes.

Preparation may include such activities as readings in assigned text, review of lecture material, solving assigned problems, and answering assigned questions.

INSTRUCTIONAL METHODOLOGY:

Check all that apply:
_X_ lecture
_X_ laboratory
___ lecture-laboratory combination
___ directed study

This course may be offered as a distance education course and meets Title 5 regulations 55370, 55372, 55374, 55376, 55378, and 55380.
Yes___ No_X_

If yes, check all that apply. (See guidelines for preparation for definitions.)
___ telecourse
___ mediated instruction
___ computer assisted instruction

GRADING POLICY AND STANDARDS (include methods of determining whether the stated objectives have been met by students):

Homework assignments	0 - 20%
Exams	50 - 75%
Final exam	20 - 40%

IS THE COURSE REPEATABLE FOR REASON(S) OTHER THAN DEFICIENT GRADE?
Yes___ No_X_ Number of times course may be taken for credit: _1_

If yes, identify specific provision of title 5 Division 2 section(s) 55761-55763 and 58161 which qualifies course as repeatable:

CONTACT PERSON: Takashi Nakajima **Extension:** 2514