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: CI 106 Electrical Codes II

UNIT VALUE: 3

MINIMUM NUMBER OF SEMESTER HOURS: 48

BASIC SKILLS REQUIREMENTS: Appropriate language and computational skills.

ENTRANCE REQUIREMENTS

PREREQUISITE: CI 105.

COREQUISITE: None.

RECOMMENDED PREPARATION: None.

SCOPE OF COURSE:

A continuation of Electrical Codes I. National Fire Protection Association (NFPA) revisions every three years.

SPECIFIC COURSE OBJECTIVES:

Students will be able to:

1. Analyze basic electrical theory and its application to everyday electrical usage.
2. Validate conclusions of the proper perspective of the National Electric Code, relationship to other building codes, and relationship to general construction.
3. Use the primary electric code used in California, and be able to use it to solve problems common to electrical code questions.
4. Apply construction inspection principles to intensive electrical code subjects such as transformers, motors, hazardous locations, swimming pools, appliances, and light fixtures.

CONTENT IN TERMS OF SPECIFIC BODY OF KNOWLEDGE:

I. Introduction To Specific Building Codes And Their Electrical Requirements
   - A. Relationship of the National Electric Code to requirements
   - B. Overview of electrical Uniform Building Code requirements
   - C. Overview of electrical Uniform Mechanical Code requirements
   - D. Overview of the California Electric Code

II. Electric Code Requirements For Common Electrical Items
   - A. Junction boxes
   - B. Switches
   - C. Lighting fixtures
   - D. Appliances

III. Electric Code Requirements For Specific Usages
   - A. Motors
   - B. Transformers
   - C. Air conditioning equipment
   - D. Hazardous locations
   - E. Health care facilities
   - F. Mobile home parks
     1. State requirements
     2. National requirements
   - G. Swimming pools

IV. Basic Overview Of Electrical Theory And Its Application To Electrical Code Requirements
   - A. Grounding and importance to safety
   - B. Conductor size and amperage
     1. Use of conductor ampacity tables
   - C. Voltage drop, cause and effects

V. Inspection Techniques For Gaining Maximum Compliance With The National Electrical Code
   - A. Common mistakes by installers
   - B. Mandatory items to be checked
   - C. Quick techniques to check for general compliance

REQUIRED READING:

National Fire Protection Association (NFPA). National Electrical Code 1993. Quincy: National Fire Protection Association, 1992.

SUGGESTED READING:

Stallcup, James. Designing Electrical Systems. 1993 edition. Chicago: American Technical Publishers, Inc., 1992.

REQUIRED WRITING:

Problem-solving exercises will require responses of a least one paragraph in length. These exercises include simple electrical calculations involving box fill, wire ampacity, and voltage drop.

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.

Prepare short exercises involving problem solving and simple mathematical calculations. Read textbook assignments and handouts. Study lecture notes.

INSTRUCTIONAL METHODOLOGY:

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

This course may be offered as a distance learning course and meets Title 5 regulations 55370, 55372, 55374, 55376, 55378, and 55380.
Yes _____ No__X__

If yes, check all that apply.

_____ Television Course (Video one-way, e.g. ITV, video cassette, etc.)
_____ Online Course (Text one-way, e.g. newspaper, correspondence, electronic file, etc.)
_____ Two-Way Video Conferencing (Two-way interactive video and audio)
_____ One-Way Video Conferencing (One-way interactive video and two-way interactive audio)
_____ Computer Assisted Instruction (A specialized form of mediated instruction relying primarily on student access to information and prepared lessons or teaching materials through a computer terminal, but not under immediate supervision of a qualified instructor.)

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

Participation	=	20%	A = 100 - 90%
Exams	=	40%	B = 89 - 80%
Final	=	20%	C = 79 - 70%
Homework/Exercises	=	20%	D = 69 - 60%
		100%	F = 59 - Below

IS COURSE REPEATABLE FOR REASON(S) OTHER THAN DEFICIENT GRADE?
Yes _X_ No ___ Number of times course may be taken for credit: _2_

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

CONTACT PERSON: Director, Vocational Programs, Ext. 2286

SIGNATURES ON FILE