

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: AP C 226 Bridge Construction

UNIT VALUE: 1.5

MINIMUM NUMBER OF SEMESTER HOURS: 40

BASIC SKILLS REQUIREMENTS: Appropriate language and computational skills.

ENTRANCE REQUIREMENTS

PREREQUISITE: None.

COREQUISITE: None.

RECOMMENDED PREPARATION: None.

SCOPE OF COURSE:

This course is give an overview of basic bridge construction. Related safety, math and blueprint reading will be covered.

SPECIFIC COURSE OBJECTIVES:

Students will be able to:

1. Introduced to the basic principles of bridge construction.
2. Identify various types of bridge design.
3. Introduced to bridge blueprints.
4. Able to demonstrate basic bridge deck construction techniques.

CONTENT IN TERMS OF SPECIFIC BODY OF KNOWLEDGE:

- I. Identify and explain the various types of bridge designs
 - A. Box Girder Bridge
 - B. Open Girder Bridge
 - C. Steel Girder Bridge
 - D. Pre-cast Girder Bridge
- II. Identification of and application of various forming systems
 - A. Single-whaler system
 - B. Gang wall system

- III. Assemble wood stairs and deck forms
A. Layout of stairs
B. Layout of shoring common to both stairs and ramps

REQUIRED READING:

Koel, Leonard. Carpentry. Homewood: American Technical Publishers, 1991

Koel, Leonard. Concrete Formwork. Chicago: American Technical Publisher, 1990

Carpenters 46 Northern California Counties JATC. Construction Mathematics. Oakland: Self-published, 1991

Carpenters 46 Northern California Counties JATC. Introduction to Working Drawings. Oakland: Self-published, 1991

SUGGESTED READING:

None.

REQUIRED WRITING:

Completion of written assignments in student workbook, consisting of ten to twelve pages in length.

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.

Students will read assigned text and workbook assignments.

INSTRUCTIONAL METHODOLOGY:

Check all that apply:

- lecture
 laboratory
 lecture-laboratory combination
 directed study

DISTANCE LEARNING:

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

Yes No

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):

Class Participation	10%	A = 100 – 90
Quizzes	20%	B = 89 – 80
Lab/Shop Projects	20%	C = 79 – 70
Workbook	20%	F = Below 70
Final Exam	<u>30%</u>	
	100%	

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 Part C 2A

CONTACT PERSON: Director, Vocational Programs, Ext. 2286

SIGNATURES:

Signatures on File