

**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 207 Tilt-Up

**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 designed to give an overview of the Tilt-up industry. Form techniques and panel hardware will be discussed. Related safety, math and blueprint reading will be covered.

**SPECIFIC COURSE OBJECTIVES:**

Student will be able to:

1. Pros and cons of tilt-up construction
2. Forming techniques
3. Function of inserts
4. Rigging and placement of panels

**CONTENT IN TERMS OF SPECIFIC BODY OF KNOWLEDGE:**

- I. Applications of Tilt-up construction
  - A. Principles of tilt-up engineering
  - B. Distinction between tilt-up construction and poured-in-place construction
- II. Reading Tilt-up blue prints.
  - A. Footing difference
  - B. Panel lay-out section
- III. Layout of Tilt- up panels.

- A. Panel sequence
- B. Panel connection lay-out

IV Design and use of Tilt-up inserts.

- A. Function of inserts
- B. Placement and lay-out of inserts

V Methods of raising and bracing wall panels will be explained

- A. Proper and safe rigging of panels
- B. Sequence of placement of panels
- C. Proper bracing of panels

**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 on File