

**PALOMAR COLLEGE**  
**COURSE OUTLINE OF RECORD FOR**  
**DEGREE CREDIT COURSE**

\_\_\_\_\_ Transfer Course  X  A.A. Degree applicable course  
(check all that apply)

**COURSE NUMBER AND TITLE:** CFT-180 Wood Bending and Lamination/Wood Technology

**UNIT VALUE:** 2, 3, 4

**MINIMUM NUMBER OF SEMESTER HOURS:** 64,80,128

**BASIC SKILLS REQUIREMENTS:** Appropriate language, writing and computation skills

**ENTRANCE REQUIREMENTS**

**PREREQUISITE:** CFT-105

**COREQUISITE:** None

**RECOMMENDED PREPARATION:** None

**SCOPE OF COURSE:**

Principles and practical applications of both wood bending and lamination. Mechanical and chemical means of bending wood studied and developed, specific structure and properties of wood are developed.

**SPECIFIC COURSE OBJECTIVES:**

The student will:

1. Apply principles of shop safety
2. Identify and analyze chemical and mechanical means of bending
3. Compare and contrast mechanical and chemical bending
4. Apply the basic principles of chemical bending
5. Apply the basic principles of mechanical bending
6. Identify specific means of chemical bending
7. Compare and contrast steam and anhydrous ammonia bending
8. Analyze the bending of wood and its effect on the lamination process

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

- I. History of various bending methods
- II. History of lamination
- III. Bending methods
- IV. Lamination
  - A. Theory
  - B. Forms
  - C. Single
  - D. Multiple
- V. Wood Technology
  - A. Tree structure
  - B. Cell structure
  - C. Characteristics
  - D. Density
  - E. Seasoning
  - F. Drying methods
- VI. Desired qualities for bending and lamination

## **REQUIRED READING:**

Extensive instructor-originated class information sheets, which are summarized and included in the instructor-evaluated notebook submitted by all students.

## **SUGGESTED READING:**

U. S. Dept. of Agriculture. Wood Handbook. Washington D.C.: U.S. Dept. of Agriculture, 1988.  
Workbench Magazine. Kansas City: Modern Handcraft, Inc.  
Capron, Hugh. Wood Laminating. Newtown, NJ: Taunton Press, 1984.  
The Wendell Castle Book of Wood Lamination. New York: Van Nostrand Reinhold Co., 1980.  
Desck, H.E. Timber: Its Structure and Properties. Emmaus, PA: Rodale Press, Inc., 1982.  
Stevens, W. C. Wood Bending Handbook. Emmaus, PA: Rodale Press, Inc., 1982.  
Fine Woodworking. Newton: The Taunton Press, Inc..  
The Woodworker's Journal. New Milford: Madrigal Publishing Co.  
Woodsmith. Des Moines: Woodsmith Publishing Co.  
Popular woodworker. Concord: EGW Publishing Co.  
Wood. Des Moines: Meredith Publishing Co.  
The American Woodworker. Hendersonville: JM Publications Inc.

## **REQUIRED WRITING:**

A written thirty-page notebook is required of all students. Students will, within a period of one week, rewrite their notes taken in class, supplementing and augmenting such class notes with information derived from suggested reading (see listing) and instructor-originated information sheets. All drawings in the notebook will be redrawn to reproduction standards. Students will complete a minimum of two written exams, each consists of 3-4 written pages. Questions may include mathematical an algebraic functions, and analytical problem solving.

**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.**

Each student is responsible for rewriting their lecture/demonstration notes taken in class adding relevant information derived from the required reading. Proper English grammar and structure is required.

**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):

1.	Participation	20%
2.	Tests	25%
3.	Learning Project	30%
4.	Notebook	25%

Student projects will be critiqued by the instructor with class participation

**IS COURSE REPEATABLE FOR REASON(S) OTHER THAN DEFICIENT GRADE?**

Yes  No  Number of times course may be taken for credit: 4

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

**CONTACT PERSON: Russ Filbeck ext. 2812**

**SIGNATURES ON FILE**