

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

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

**COURSE NUMBER AND TITLE:** CFT-157    Chair and Seating/Prototype Construction

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

**MINIMUM NUMBER OF SEMESTER HOURS:** 64,96,128 lecture/laboratory

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

**ENTRANCE REQUIREMENTS**

**PREREQUISITE:** CFT-105

**COREQUISITE:** None

**RECOMMENDED PREPARATION:** None

**SCOPE OF COURSE:**

In-depth study of production chair making, History of chair making and seating. Design and application of pattern making techniques on student-selected projects.

**SPECIFIC COURSE OBJECTIVES:**

Student will:

1.    Employ chair and seating design considerations.
2.    Apply prototype and mock-ups for pattern making techniques to student selected projects.

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

1.    Introduction
  
- II.    History of Chairs
  - A.    Functional Design Development
  - B.    Regional Designs
  
- III.    Chair and Seating Designers
  - A.    Hans Wegner
  - B.    Michael Thonet

- C. Greene and Greene
- D. Sam Maloof

#### IV. Chair and Seating Design Considerations

- A. Human Measurements
- B. Back Support
- C. Seat Comfort
- D. Seat Size and Height
- E. Seat Types
- F. Back Types
- G. Arm Rests

#### V. Designing Your Chair

- A. Sketching
- B. Ideas/Designing
- C. Drawing Instruments
- D. Working Drawing
- E. Full Size Drawing
- F. Model Building
- G. Constructing Prototypes and Mock-ups

#### VI. Materials

- A. Woods Used In Chairs
- B. Materials for Jigs and Fixtures
- C. Materials for Pattern Making
- D. Materials for Model Building
- E. Mock-ups and Prototype Materials

#### VII. Pattern Making

- A. Drawings and Layout
- B. Roughing out Pattern
- C. Band Saw and Jig Saw Use
- D. Shaping and Sanding

#### VIII. Layout for Milling

- A. Wood and Pattern Layout
- B. Reading Grain Direction
- C. Roughing out Lumber
- D. Proper and Safe Use of:
  - 1. Jointer
  - 2. Surfacer
  - 3. Table Saw
  - 4. Band Saw

#### IX. Hand Tools/Profile Shaping

- A. Files
- B. Scrapers
- C. Chisels
- D. Gouges
- E. Hand Planes
- F. Draw Knives

- X. Spindle Turning
  - A. Roughing Out Material
  - B. Mounting Material
  
  - C. Turning Tools
  - D. Sharpening Tools
  - E. Measuring Tools
  - F. Use of Templates and Jigs
  - G. Safe & Proper Use of Wood Lathe

### **REQUIRED READING:**

Cabinet and Furniture Technology Safety Manual (Revised yearly)

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

### **SUGGESTED READING:**

Kelsey, John. Fine Woodworking, Chairs and Beds. Newtown: Taunton Press, 1984.

Scott, Ernest. Working in Wood. New York: G.P. Putnam's Sons, 1980.

Feirer, John. Furniture and Cabinetmaking. Peoria: Chas. A. Bennett Co., Inc., 1983.

Workbench Magazine. Kansas City: Modern Handcraft, Inc.

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.

Wood. Des Moines: Meredith Publishing Company.

The American Woodworker. Hendersonville: JM Publications Inc.

### **REQUIRED WRITING:**

A Written 30-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 exam consists of 3-4 written pages. Questions may include mathematical and 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 will complete a notebook (see required writing for details) which will entail three hours of outside assignments per week.

Each student will complete a 30-page class notebook. Three hours of outside assignments per week. Each student is responsible for required reading. Each student is responsible for required reading. Each student is responsible for required reading. 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):

Final grades will be based on the following factors:

- |    |   |     |
|----|---|-----|
| 1. | Participation                                 | 20% |
| 2. | Tests   | 25% |
| 3. | Learning project                              | 30% |
| 4. | Notebook, design paper or product development | 25% |

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

Yes  No  Number of times course may be taken for credit: 3

If yes, identify specific provision of Title 5 Division 2 section(s), 55761-55763 and 58161 which qualifies course as repeatable: 58161 D2A

**CONTACT PERSON: Chris Feddersohn ext. 2556**

**SIGNATURES ON FILE**