

**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 171 – Furniture for the Wood Shop

**UNIT VALUE:** 2/3/4

**MINIMUM NUMBER OF SEMESTER HOURS:** 64/96/128

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

**ENTRANCE REQUIREMENTS**

**PREREQUISITE:** CFT 100

**COREQUISITE:** None

**RECOMMENDED PREPARATION:** None

**SCOPE OF COURSE:**

The individual student will be required to design and construct one or more projects from a broad range of furniture-quality accessories for the woodworking shop such as tool totes, tool boxes, chests and cabinets (both stationary and portable), step stools, saw horses or workbench accessories.

Particular attention will be paid to artistic and functional design, utility, material selection and joinery techniques. Skills in spindle turning, marquetry and inlay, compound angle joinery, coopering, and veneering will be developed and employed depending on the project selected.

**SPECIFIC COURSE OBJECTIVES:**

The student will:

1. Build custom-designed “furniture” displaying their woodworking skills for the benefit of potential clients.
2. Create functional, high quality, projects for their pleasure and use in the wood shop, employing advanced techniques in hand and machine tool use, and utilizing techniques taught in the class, where appropriate to the project.

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

- I. Introduction
  - A. Project selection
  - B. Material selection
  - C. Stability and vector forces

- D. Trigonometric functions for design & drawing
- II. Joinery
  - A. Alternative dovetail using the table saw & band saw
  - B. Box joint & jigs for the table saw
- III. Veneer
  - A. Shop made sawing techniques
  - B. Pre-manufactured
  - C. Application to substrate
- IV. Scroll saw
  - A. Blades tension, & clamping mechanisms
  - B. Sawing techniques for solid wood and veneer
    - 1. Tilted table
    - 2. Pierced sawing
    - 3. Veneer stacking
- V. Marquetry and Inlay
  - A. Patterns
    - 1. CAD programs for design & drawing
    - 2. Hand drawn & pre-printed
    - 3. Application to work piece
  - B. Assembly
  - C. Application to substrate
    - 1. Solid wood
    - 2. Plywood
  - D. Router
    - 1. Inlay kit
    - 2. Complimentary template routing
- VI. Lathe
  - A. Tools & sharpening
  - B. Spindle turning
  - C. Split turning
- VII. Bent laminations & jig construction
- VIII. Pattern sanding
- IX. Coopering
  - A. Solid wood
    - 1. Jigs
    - 2. Clamping
  - B. Veneer
    - 1. Jigs
    - 2. Cauls
    - 3. Vacuum bag technique

#### **REQUIRED READING:**

Selected published articles provided by the instructor.

#### **SUGGESTED READING:**

1. Understanding Wood, R. Bruce Hoadley, The Taunton Press Inc., Newtown, CT, 1995, ISBN:0-918804-05-1. Wood technology, joinery.
2. The Toolbox Book, Jim Tolpin, The Taunton Press Inc., Newtown, CT, 1995, ISBN:1-

56158-092-9. Design, construction, accessories.

3. The Workbench Book, Scott Landis, The Taunton Press Inc., Newtown CT, 1991, ISBN:0-918804-76-0. Accessories.
4. The Workshop Book, Scott Landis, The Taunton Press Inc., Newtown, CT, 1991, ISBN:0-942391-37-3. Accessories.
5. Bench Tools, The Best of Fine Woodworking Magazine, The Taunton Press Inc., Newtown, CT, ISBN:0-942391-84-5. Design, construction, accessories.
6. Fine Woodworking on Marquetry and Veneer, The Taunton Press Inc., Newtown, CT.,1987 ISBN: 0-918804-74-4. Thirty-eight selected articles from Fine Woodworking Magazine on veneering & marquetry.
7. Marquetry, Pierre Ramond, The Taunton Press Inc., Newtown, CT, 1989, ISBN: 0-942391-19-5. Marquetry.
8. Turning for Furniture, Ernie Conover, The Taunton Press Inc., Newtown, CT, 1996, ISBN 0-918804-24-8. Lathes, wood turning.
9. Turning Wood with Richard Raffan, Richard Raffan, The Taunton Press Inc., Newtown, CT, 1985, ISBN 0-918804-24-8. Lathes, wood turning.

#### **REQUIRED WRITING:**

The student will be required to take class notes covering the lecture topic each day, and maintain a notebook with class notes, instructor-generated hand-outs and project related materials (covering drawings & design considerations, material selection, costs, cut-list.)

#### **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.**

#### **INSTRUCTIONAL METHODOLOGY:**

##### **Check all that apply:**

- 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

##### **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 – 30%-Instructor observation

Notebook – 30%-Instructor review and grading

Project utility, design & completion and quality of workmanship – 40%-Instructor and student critique of course work

**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: Section 58161 (c) (2) (A)

**CONTACT PERSON:** Russ Filbeck extension 2812

**SIGNATURES:**

SIGNATURES ON FILE
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