

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-155 Classic American Chair Designs

UNIT VALUE: 2,3,4

MINIMUM NUMBER OF SEMESTER HOURS: 64,96,128

BASIC SKILLS REQUIREMENTS: Appropriate language, writing and computation skills

ENTRANCE REQUIREMENTS

PREREQUISITE: None

COREQUISITE: None

RECOMMENDED PREPARATION: None

SCOPE OF COURSE:

Chair making which emphasizes the use of traditional chair making tools to shape raw wood into chair parts. Topics include the history of Windsor and Ladder Back chair designs, harvesting the raw materials from a tree, proper sharpening of the hand tools, shaping, steam bending, kiln drying and assembling the chair parts, seat weaving and traditional finishing appropriate to each chair style.

SPECIFIC COURSE OBJECTIVES:

The student will:

1. Apply principles of shop safety
2. Compare Windsor and Ladder Back designs to other chair styles
3. Contrast joint strength of the Windsor and Ladder Back chairs to other chair designs
4. Identify traditional chair making tools
5. Demonstrate skills necessary for sharpening the chair making tools
6. Demonstrate the use of these tools for sculpting seats, shaping parts and making joints
7. Demonstrate wood harvesting techniques
8. Demonstrate steam bending of chair parts
9. Demonstrate the skills necessary to properly assemble the chair
10. Demonstrate seat-weaving skills
11. Demonstrate proper finishing techniques

CONTENT IN TERMS OF SPECIFIC BODY OF KNOWLEDGE:

- I. Introduction
 1. History of Windsor chairs
 2. Development of the Ladder Back chair design
 3. Materials used to make these chairs
 4. Sources of raw/semi-prepared materials
 5. Traditional chair making tools and sources
 6. The wood turning lathe and lathe tools
 7. Steam bending equipment and wood bending process
 8. Harvesting raw wood material from billets
 9. Kiln drying—kiln dried and green wood joinery
 10. Bent lamination of chair parts made from sawn, kiln dried lumber

- II. Preparing and ordering materials and tools
 1. Harvest raw wood for chair parts
 2. Place orders for Windsor chair turning sets and seat blanks
 3. Tool sharpening
 - a. Draw knives
 - b. Spoke shaves
 - c. Gutter adz
 - d. Travisher
 - e. Scorp
 - f. Wedges, froe, hatchets
 - g. Lathe tools

- III. Using the Shaving Horse and Lathe
 1. Shaping chair parts on the shaving horse
 - a. Rungs, legs (Ladder Back chair)
 - b. Spindles, bow, arm (Windsor chair)
 2. Turning chair parts on the lathe

- IV. Steam bending and bending forms for chair parts
 1. Types of steam units
 2. Various forms for bending chair parts
 3. Steam bending theory
 4. Tension and compression of wood tissue

- V. Sculpting Windsor chair seats
 1. Gutter adz
 2. Scorp
 3. Compass plane
 4. Travisher
 5. Curved scraper

- VI. Legging-up Windsor chairs
 1. Drilling and reaming seat leg holes
 2. Drilling and fitting legs and rungs
 3. Assembling seat, legs and rungs
 4. Wedging the legs

- VII. Kiln Drying/Seasoning chair parts
 - 1. Types of kilns
 - 2. Moisture meters
 - 3. Joint theory of wet/dry components

- VIII. Assembling front and back leg assemblies of the of the Ladder Back chair
 - 1. Drill bits
 - 2. Alignment and holding jugs
 - 3. Tenon forming tools
 - 4. Rung to leg angles

- IX. Assembling spindles, bow and arm of the Windsor chair
 - 1. Layout and drill spindle holes in seat
 - 2. Layout and drill spindle holes in arm
 - 3. Fit bow to arm
 - 4. Layout and drill spindle hole in bow
 - 5. Wedge all through tenons of spindles

- X. Weaving the Ladder Back chair seat
 - 1. Types of seating material
 - a. Inner bark of the hickory tree
 - b. Rush
 - c. Leather
 - d. Swedish cord
 - e. Shaker tape
 - 2. Weaving patterns
 - 3. Weaving tools

- XI. Finishing
 - 1. Oil finishing—Ladder Back chair
 - 2. Milk paint—Windsor chair

REQUIRED READING:

Selected published articles on chair making provided by the instructor

SUGGESTED READING:

Alexander, John D. Jr. Make a Chair From a Tree: An Introduction to Working Green Wood. Newtown, CT: The Taunton Press, 1978.

Dunbar, Michael. Make a Windsor Chair with Michael Dunbar. Newtown, CT: The Taunton Press, 1978.

Evans, Nancy Goyne. American Windsor Chairs. New York: Hudson Hills Press, 1996.

Evans, Nancy Goyne. American Windsor Furniture. New York: Hudson Hills Press, 1997.

Langsner, Drew. The Chairmaker's Workshop. Ashville, NC: Lark Books, 1997.

REQUIRED WRITING:

1. Student generated, 120 page, three ring binder note book of class handouts and class notes. Student will within a period of one week, rewrite their class notes taken in class, supplementing and augmenting such class notes with information derived from lab exercises, required and suggested reading.
2. Five-page documentation paper describing in detail the processes required to build and finish the chair that they chose to make, either a Windsor or Ladder Back design.

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 are expected to complete their reading assignments, writing assignments, study for exams, complete take-home exams, and practice tool sharpening outside of class.

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):

Mid Term exam	10%
Participation	10%
Preparing Materials	15%
Chair Assembly	20%
Chair Finishing	20%
Student Notebook	25%

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

Yes X 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)

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SIGNATURES ON FILE