FORM VERSION: 5/95
DATE REVISED: 10/97

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: CFT 186 Machine Tool/Production Carving

UNIT VALUE: 1/2/3/4

MINIMUM NUMBER OF SEMESTER HOURS: Lecture/Lab 32/64/96/128

BASIC SKILLS REQUIREMENT: Appropriate language and computational skills.

ENTRANCE REQUIREMENTS:

PREREQUISITE: CFT 105.

COREQUISITE: None

RECOMMENDED PREPARATION: None

SCOPE OF COURSE:

Introductory woodcarving course using hand and power machine tools. Design considerations, carving techniques, production carving, and incorporation of woodcarving into cabinetmaking, furniture constructions, and architectural millwork.

SPECIFIC COURSE OBJECTIVES:

Students will:
1. Compare and contrast woodcarving design evolution.
2. Identify and contrast carving tools.
3. Identify the basic principles of sharpening all carving tools.
4. Compare and contrast tool techniques in relief carving.
5. Identify and understand the principles of production machine carving.
6. Compare and contrast the methods of architectural millwork carving techniques.
7. Identify and understand the principles of setting up and using the multi-spindle carving machine.
8. Analyze and demonstrate with ability and knowledge relief carving in different materials.

9. Identify and analyze the major types of finishes used in wood carving.
10. Contrast and analyze limited production carving methodology to high volume production carving systems.

CONTENT IN TERMS OF SPECIFIC BODY OF KNOWLEDGE:

I. Introduction
II. History of Carving
    A. Historical Perspective
    B. Design Evolution
III. Design
    A. Wood Selection
    B. Sketching
    C. Drawing Instruments
    D. Transfers
    E. Effects of Light and Shadow
    F. Visual Perception
IV. Carving Tools
    A. Knives
    B. Chisels
    C. Files and Rasps
    D. Gouges
    E. Safe and Proper Use of All Hand Tools
    F. Safe and Proper Use of All Hand Tools
V. Sharpening
    A. Stones
    B. Gouges
    C. V-Tools
    D. Paring Tools
    E. Knives and Chisels
    F. Storage and Care of Tools
VI. Relief Carving
    A. Outlining
    B. Setting-In
    C. Grounding Out
    D. Modeling
    E. Tool Techniques
VII. Production Machine Carving
    A. Machine Overview
    B. Machine Set-up
    C. Bits and Cutters
    D. Roughing Bits
    E. Finishing Bits
    F. Stylist

G. Bit Sharpening
H. Panel Routering
I. Spindle Routering

VIII. Architectural Carving
A. Carved Panels
B. Moulding
C. Carbells
D. Furniture

IX. Preparing Carvings for Finishes
A. Planes, Spokeshaves, and Draw Knives
B. Stamps and Punches
C. Removing Machine Tool Marks
D. Sanders and Sanding

X. Finishing
A. Oils
B. Stains
C. Clear Finishes
D. Waxes and Polishing

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 sub

SUGGESTED READING:

Klamkin. Wood Carving. 1990.

Gottshall. Woodcarving and Whittling. 1984

Biitz, Rich. How to Carve Wood. Newton: The Taunton Press, 1984.

Lenz, Judy and John. Woodcarving by Machine. Newton: The Taunton Press, 1984.

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 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 three hours per unit per week in class and on outside assignments, prorated for short term classes.

Each student will complete a thirty page notebook. Three hours of outside assignments per week. 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
__X__lecture-laboratory combination
_____directed study

This course may be offered as a distance education course and meets Title 5 regulations 55370, 55372, 55374, 55376, 55378, and 55380.
_____Yes__X__No

If yes, check all that apply. (See guidelines for preparation for definitions.)
_____telecourse
_____mediated instruction
_____computer assisted instruction

GRADING POLICY AND STANDARDS (include methods for 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 AND DESIGN PAPER OR PRODUCT DEVELOPMENT:	25%

IS COURSE REPEATABLE FOR REASON(S) OTHER THAN DEFICIENT GRADE?
__X__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 (c) (2) (A).

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