



El Camino College
COURSE OUTLINE OF RECORD – Official

Course Acronym:	CTEC
Course Number:	212
Descriptive Title:	Furniture Making Laboratory - Developing Original Plans
Division:	Industry and Technology
Department:	Construction Technology
Course Disciplines:	Cabinet Making AND Furniture Making
Catalog Description:	<p>This course is one in a series of courses that will give students the opportunity to develop problem solving advanced skills in the design and fabrication of furniture with an emphasis on developing original detailed plans. Topics include creating, drawing, and constructing furniture design, Bill of Material (BOM), plan of procedure and wood and fastener selection.</p> <p><i>Note: Completion of the degree or certificate requirements qualifies students to receive a maximum of two years credit toward the California State Contractor's License for the C-6 Cabinet, Millwork and Finish Carpentry examination.</i></p>
Prerequisite:	Construction Technology 200 or Construction Technology 201 or Construction Technology 202 or Construction Technology 203 with a minimum grade of C or concurrent enrollment
Co-requisite:	
Recommended Preparation:	
Enrollment Limitation:	
Hours Lecture (per week):	0
Hours Laboratory (per week):	4.5
Outside Study Hours:	0
Total Course Hours:	81
Course Units:	1.5
Grading Method:	Letter Grade only
Credit Status:	Credit, degree applicable
Transfer CSU:	Yes
Effective Date:	03/18/2013
Transfer UC:	Yes
Effective Date:	
General Education:	ECC

	Term:
	Other:
	CSU GE:
	Term:
	Other:
	IGETC:
	Term:
	Other:
Student Learning Outcomes:	<p>SLO #1 Plan of Procedure</p> <p>Working from an original set of plans, student will complete a plan of procedure.</p> <p>SLO #2 Plan Dimensioning</p> <p>Student will dimension original set of plans.</p> <p>SLO #3 Final Product Critique</p> <p>Student will critique final product.</p>
Course Objectives:	<ol style="list-style-type: none"> 1. Complete a written comprehensive woodworking safety test with 100% accuracy. 2. Design an original furniture piece, which includes creating a complete set of plans. 3. Evaluate student submitted plans for fitness of use. 4. Create a BOM for the fabrication of furniture piece. 5. Formulate a Plan of Procedure for the fabrication of furniture project. 6. Demonstrate appropriate skill level in fabricating and assembly of the furniture project.
Major Topics:	<p>I. OVERVIEW OF DEVELOPING ORIGINAL PLANS (3 hours, lab)</p> <ol style="list-style-type: none"> 1. <ol style="list-style-type: none"> A. Project requirements B. Resources C. Lab procedures <ol style="list-style-type: none"> 1. Cages and storerooms 2. Toolroom 3. Clamping and gluing area 4. Finishing room 5. Proper lab organization 6. Clean-up procedures <p>II. SAFETY (2 hours, lab)</p> <ol style="list-style-type: none"> 1. <ol style="list-style-type: none"> A. Comprehensive safety test B. Demonstration <p>III. CREATING AN ORIGINAL FURNITURE DESIGN AND PLAN (6 hours, lab)</p> <ol style="list-style-type: none"> 1. <ol style="list-style-type: none"> A. Selecting a furniture item to design B. Developing a conceptual sketch

	<ul style="list-style-type: none"> C. Adding dimensions to the conceptual sketch D. Creating a final drawing with dimensions E. Creating a BOM F. Creating a Plan of Procedure <p>IV. FABRICATION OF PROJECT (54 hours, lab)</p> <ul style="list-style-type: none"> 1. <ul style="list-style-type: none"> A. Using BOM's B. Using Plan of Procedure C. Milling joints D. Assembling furniture piece <p>V. FINISHING (10 hours, lab)</p> <ul style="list-style-type: none"> 1. <ul style="list-style-type: none"> A. Sanding B. Staining C. Painting D. Protective coating <p>VI. PRESENTATION (6 hours, lab)</p> <ul style="list-style-type: none"> 1. <ul style="list-style-type: none"> A. Evaluation of project B. Discussion of challenges C. Soliciting recommended improvements
Total Lecture Hours:	0
Total Laboratory Hours:	81
Total Hours:	81
Primary Method of Evaluation:	3) Skills demonstration
Typical Assignment Using Primary Method of Evaluation:	Visit furniture stores and research various armoires. Use composite design techniques to draw an original armoire design. Submit drawing to the instructor.
Critical Thinking Assignment 1:	Create and an original drawing of a bookcase detailing out location and placement of dowel joint construction. Submit drawing to the instructor.
Critical Thinking Assignment 2:	Fabricate and construct an original library table using a combination of Asian and American craftsman design elements to create an original east west design. When completed, consult the instructor for evaluation.
Other Evaluation Methods:	Class Performance Objective Exam Performance Exams

Instructional Methods:	Demonstration Lab Lecture
If other:	
Work Outside of Class:	Course is lab only - minimum required hours satisfied by scheduled lab time and estimated student hours outside of class per week is zero.
If Other:	
Up-To-Date Representative Textbooks:	Willis H. Wagner and Clois E. Kicklighter, <u>MODERN WOODWORKING</u> , Goodheart-Willcox, 2006. (Discipline Standard)
Alternative Textbooks:	
Required Supplementary Readings:	
Other Required Materials:	Safety glasses Ear plugs Dust mask Closed toe shoes
Requisite:	Prerequisite
Category:	sequential
Requisite course(s): List both prerequisites and corequisites in this box.	Construction Technology 200 or Construction Technology 201 or Construction Technology 202 or Construction Technology 203
Requisite and Matching skill(s): Bold the requisite skill. List the corresponding course objective under each skill(s).	<p>Ability to use woodshop machinery and basic hand tools.</p> <p>CTEC 200 - Set-up table saw and rip plywood.</p> <p>CTEC 201 - Set-up and calibrate a dado head.</p> <p>CTEC 200 - Set-up panel saw and crosscut plywood.</p> <p>CTEC 203 - Set-up and use router to machine a rabbet cut.</p> <p>CTEC 202 - Demonstrate use of band saw to cut kick plates.</p> <p>CTEC 202 - Set-up and use line boring machine.</p> <p>CTEC 201 - Operate a nail gun on a face frame.</p> <p>Ability to read shop drawings.</p> <p>CTEC 200 - Interpret perspective cabinet drawings.</p>

	<p>CTEC 203 - Interpret perspective cabinet drawings.</p> <p>CTEC 202 - Join lumber to increase width and change grain direction.</p> <p>CTEC 201 - Interpret perspective cabinet drawings.</p> <p>Ability to do basic mathematical computations.</p> <p>CTEC 203 - Square rough lumber into usable stock.</p> <p>CTEC 200 - Interpret perspective cabinet drawings.</p> <p>CTEC 202 - Join lumber to increase width and change grain direction.</p> <p>CTEC 201 - Interpret perspective cabinet drawings.</p> <p>Ability to read a standard tape measure.</p> <p>CTEC 200 - Set-up table saw and rip plywood.</p> <p>CTEC 201 - Set-up and calibrate a dado head.</p> <p>CTEC 203 - Square rough lumber into usable stock.</p> <p>CTEC 202 - Machine a dado joint.</p>
Requisite Skill:	or concurrent enrollment
Requisite Skill and Matching Skill(s): Bold the requisite skill(s). If applicable	If students enroll in one of the basic cabinet making classes concurrently, Construction Technology 200, 201, 202 or 203, students will have the skills needed to succeed in this course.
Requisite course:	
Requisite and Matching skill(s):Bold the requisite skill. List the corresponding course objective under each skill(s).	
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Enrollment Limitations and Category:	

Enrollment Limitations Impact:	
Course Created by:	Jack Selph
Date:	10/09/2012
Original Board Approval Date:	03/18/2013
Last Reviewed and/or Revised by:	Jack Selph
Date:	02/15/2023
Last Board Approval Date:	07/17/2023 effective FALL 2024