



El Camino College
COURSE OUTLINE OF RECORD – Official

Course Acronym:	CTEC
Course Number:	211
Descriptive Title:	Furniture Making Laboratory - Plan Modifications
Division:	Industry and Technology
Department:	Construction Technology
Course Disciplines:	Cabinet Making AND Furniture Making
Catalog Description:	This course is one in a series of courses that will give students the opportunity to develop advanced problem solving skills in the design and fabrication of furniture with an emphasis on plan modification. Topics include how to modify an existing plan, using golden mean for proper proportion, ergonomics, joinery and construction techniques to achieve a finished piece to the student's specific needs. <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>
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:	Fall 2013
Transfer UC:	No
Effective Date:	
General Education: ECC	
Term:	

	Other:	
	CSU GE:	
	Term:	
	Other:	
	IGETC:	
	Term:	
	Other:	
Student Learning Outcomes:	SLO #1 Seat Back Angle Students will modify angle of seat back from dining to recline. SLO #2 Chair Height Conversion Students will convert chair height from dining to bar height. SLO #3 Dining Table Length Conversion Students will modify length of rectangular dining table from four place settings to six.	
Course Objectives:	1. Complete a written comprehensive woodworking safety test with 100% accuracy. 2. Evaluate a completed set of commercial plans for the fabrication of a furniture piece. 3. Modify plans to accomplish specific changes to the original changes to the original design for a furniture piece. 4. Demonstrate appropriate skill level in fabrication and assembly of furniture project. 5. Complete Bill of Material (BOM) and complete a Plan of Procedure for the fabrication of furniture piece.	
Major Topics:	I. OVERVIEW OF PLAN MODIFICATIONS (3 hours, lab) 1. A. Project requirements B. Resources C. Lab procedures 1. Cages and storerooms 2. Toolroom 3. Clamping and gluing area 4. Finishing room 5. Proper lab organization 6. Clean-up procedures II. SAFETY (2 hours, lab) 1. A. Comprehensive safety test B. Demonstration	

	III. PLAN MODIFICATION (6 hours, lab) 1. A. Researching and evaluating a commercial plan B. Selecting appropriate plan for a furniture project C. Modifying plan 1. Dimensions 2. Style 3. Application 4. BOM 5. Plan of Procedure 2. D. Selecting a choice of wood IV. FABRICATION OF PROJECT (54 hours, lab) 1. A. Using BOM B. Using Plan of Procedure C. Fabricate components D. Mill joints E. Assemble furniture piece V. FINISHING (10 hours, lab) 1. A. Sanding B. Staining C. Painting D. Protective coating VI. PRESENTATION (6 hours, lab) 1. 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:	Analyze and modify a set of plans for the fabrication of a side board. A typical modification would be replacing door openings with drawers. Submit modified plans to the instructor.

Critical Thinking Assignment 1:	Modify the dimensions on a drawing of a dining room table to fit available space and accommodate desired seating. Submit modified drawing to the instructor.
Critical Thinking Assignment 2:	Edit the Plan of Procedure for a modification of a filing cabinet. Submit modified Plan of Procedure to your instructor.
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 Texts:	Willis H. Wagner and Clois E. Kicklighter, <u>MODERN WOODWORKING</u> , Goodheart-Willcox, 2006. Discipline Standard Charles Woolever. <u>CONSTRUCTION TECHNOLOGY SAFETY GUIDE IN THE WOODSHOP</u> . 2003. Daily J. Discipline Standard
Alternative Texts:	
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	Ability to use woodshop machinery and basic hand tools. CTEC 200 - Set-up table saw and rip plywood.

course objective under each skill(s).	CTEC 202 - Demonstrate use of band saw to cut kick plates. CTEC 203 - Set-up and use router to machine a rabbet cut. CTEC 201 - Set-up and calibrate a dado head. Ability to read shop drawings. CTEC 201 - Calculate the number of sheets of plywood required for a cabinet. CTEC 203 - Demonstrate ability to understand and interpret factory appliance cut out specifications. CTEC 200 - Interpret perspective cabinet drawings. CTEC 202 - Join lumber to increase width and change grain direction. Ability to perform basic mathematical computations. CTEC 203 - Square rough lumber into usable stock. CTEC 200 - Interpret perspective cabinet drawings. CTEC 202 - Join lumber to increase width and change grain direction. CTEC 201 - Interpret perspective cabinet drawings. Ability to read a standard tape measure. CTEC 200 - Set-up table saw and rip plywood. CTEC 201 - Set-up and calibrate a dado head. CTEC 203 - Square rough lumber into usable stock. CTEC 202 - Machine a dado joint.
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).	
Requisite Skill:	
Requisite Skill and Matching skill(s): Bold	

the requisite skill. List the corresponding course objective under each skill(s). If applicable	
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:	04/28/2025
Last Board Approval Date:	06/26/2025
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