



El Camino College
COURSE OUTLINE OF RECORD – Official

Course Acronym:	CTEC
Course Number:	210
Descriptive Title:	Furniture Making Laboratory - Interpreting Commercial 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 interpreting commercial plans. Topics include how to read and understand furniture construction plans, the meaning of symbols and calculations, reading dimensions, and verifying accuracy of stacked dimensions in relationship to the overall dimension.</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:	No
Effective Date:	
General Education:	ECC

	Term:
	Other:
	CSU GE:
	Term:
	Other:
	IGETC:
	Term:
	Other:
Student Learning Outcomes:	<p>SLO #1 Bill of Materials</p> <p>Provided with a set of plans, students will create a bill of materials,</p> <p>SLO #2 Cost of Materials</p> <p>Referencing a bill of materials, students will calculate cost.</p> <p>SLO #3 Construction Hours Estimate</p> <p>Using selected plans, students will estimate construction hours.</p>
Course Objectives:	<ol style="list-style-type: none"> 1. Complete a written comprehensive woodworking safety test with 100% accuracy. 2. Select and evaluate a commercial set of plans for level of difficulty, cost, and construction time. 3. Select material compatible with project selection and design. 4. Evaluate tool needs and work plan for furniture project. 5. Complete Bill of Material (BOM) and plan of procedure for fabrication of furniture piece.
Major Topics:	<p>I. OVERVIEW OF INTERPRETING COMMERCIAL 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. INTERPRETING COMMERCIAL PLANS (6 hours, lab)</p> <ol style="list-style-type: none"> 1. <ol style="list-style-type: none"> A. Selecting a commercial plan for desired project

	<ul style="list-style-type: none"> B. Verifying all dimensions C. Verifying Plan of Procedure D. Identifying joinery needs applicable to equipment E. Studying BOM F. Selecting choice of wood <p>IV. FABRICATION OF PROJECT (54 hours, lab)</p> <p>1.</p> <ul style="list-style-type: none"> A. Using BOM B. Using Plan of Procedure C. Material selection D. Milling E. Assembly <p>V. FINISHING (10 hours, lab)</p> <p>1.</p> <ul style="list-style-type: none"> A. Sanding B. Staining C. Painting D. Protective coating <p>VI. PRESENTATION (6 hours, lab)</p> <p>1.</p> <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:	Analyze a set of plans for fabrication of a chair. Verify the accuracy of BOM and estimate cost based on wood selection, fasteners, adhesives, and finishing materials. Develop a Plan of Procedure indicating the material cost and submit to the instructor.
Critical Thinking Assignment 1:	Referring to modified plans, using a table saw and radial arm saw, mill out components for a hall table. After completion, consult with the instructor.
Critical Thinking Assignment 2:	Create a Plan of Procedure for the fabrication of a chair. Verify if the appropriate lab equipment is available for the fabrication of this project. Submit Plan of Procedure to the 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 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).	Ability to use woodshop machinery and basic hand tools. CTEC 200 - Set-up table saw and rip plywood. 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 - Operate a nail gun on a face frame. Ability to read shop drawings. CTEC 200 - Interpret perspective cabinet drawings. CTEC 203 - Interpret perspective cabinet drawings. CTEC 201 - Interpret perspective cabinet drawings. CTEC 202 - Interpret perspective cabinet drawings.

	<p>Ability to perform basic mathematical computations.</p> <p>CTEC 200 - Set-up table saw and rip plywood.</p> <p>CTEC 203 - Square rough lumber into usable stock.</p> <p>CTEC 201 - Calculate the number of sheets of plywood required for a cabinet.</p> <p>CTEC 202 - Set-up and use line boring machine.</p> <p>Ability to read a standard tape measure.</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 - Join lumber to increase width and change grain direction.</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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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:	02/15/2023
Last Board Approval Date:	07/17/2023 effective FALL 2024