



El Camino College  
 COURSE OUTLINE OF RECORD – Official

<b>Course Acronym:</b>	CTEC
<b>Course Number:</b>	231
<b>Descriptive Title:</b>	Intermediate Cabinet Making Lab
<b>Division:</b>	Industry and Technology
<b>Department:</b>	Construction Technology
<b>Course Disciplines:</b>	Cabinet Making
<b>Catalog Description:</b>	This course is one in a series of courses designed to provide students the lab time and facility to take on more challenging projects in order to maintain and continue perfecting skills acquired in other Construction Technology courses. Students will focus on cabinet fabrication techniques incorporating custom design for specific applications, including sanding and routing techniques. A plan and procedure for proper sequence of sanding and routing will be developed to ensure professional results.
<b>Prerequisite:</b>	Construction Technology 200 or Construction Technology 201 or Construction Technology 202 or Construction Technology 203 with a minimum grade of C
<b>Co-requisite:</b>	
<b>Recommended Preparation:</b>	
<b>Enrollment Limitation:</b>	
<b>Hours Lecture (per week):</b>	0
<b>Hours Laboratory (per week):</b>	4.5
<b>Outside Study Hours:</b>	0
<b>Total Course Hours:</b>	81
<b>Course Units:</b>	1.5
<b>Grading Method:</b>	Letter Grade only
<b>Credit Status:</b>	Credit, degree applicable
<b>Transfer CSU:</b>	Yes
<b>Effective Date:</b>	Proposed
<b>Transfer UC:</b>	No
<b>Effective Date:</b>	
<b>General Education: ECC</b>	
<b>Term:</b>	
<b>Other:</b>	
<b>CSU GE:</b>	
<b>Term:</b>	

Other:	
IGETC:	
Term:	
Other:	
<p><b>Student Learning Outcomes:</b></p>	<p><b>SLO #1 Detailed Sanding</b></p> <p>Select appropriate sanding machines for detail sanding.</p> <p><b>SLO #2 Sanding Grit</b></p> <p>Select sanding grit appropriate for final finishing materials.</p> <p><b>SLO#3 Router Bits</b></p> <p>Select router bit to produce desired profile.</p>
<p><b>Course Objectives:</b></p>	<ol style="list-style-type: none"> <li>1. Select appropriate sanding machines for detail sanding.</li> <li>2. Select sanding grit appropriate for final finishing materials.</li> <li>3. Select router bit to produce desired profile.</li> </ol>
<p><b>Major Topics:</b></p>	<p><b>I. OVERVIEW OF INTERMEDIATE CABINET MAKING LAB (2 hours, lab)</b></p> <ol style="list-style-type: none"> <li>1.       <ol style="list-style-type: none"> <li>A. Shop procedures</li> <li>B. Clean up assignments</li> </ol> </li> </ol> <p><b>II. SAFETY IN THE SHOP (2 hours, lab)</b></p> <ol style="list-style-type: none"> <li>1.       <ol style="list-style-type: none"> <li>A. Review</li> <li>B. Required safety test</li> </ol> </li> </ol> <p><b>III. SKILL BUILDING (74 hours, lab)</b></p> <ol style="list-style-type: none"> <li>A. Routers       <ol style="list-style-type: none"> <li>1. Handheld</li> <li>2. Plunge</li> <li>3. Table</li> </ol> </li> <li>B. Sanders       <ol style="list-style-type: none"> <li>1. Vertical belt sander</li> <li>2. Hand-held belt</li> <li>3. Random orbit</li> <li>4. Finish</li> </ol> </li> <li>C. Overview of router bits       <ol style="list-style-type: none"> <li>1. Edge forming</li> <li>2. Grooving</li> </ol> </li> <li>D. Overview of sanding abrasives       <ol style="list-style-type: none"> <li>1.</li> </ol> </li> </ol>

	<ol style="list-style-type: none"> <li>1. Sanding grit scales</li> <li>2. Coated Abrasives Manufacturers Institute (CAMI) - USA standard</li> <li>3. International Organization for Standardization/Federation of European Producers of Abrasives (ISO/FEPA) - referred to as P-scale</li> <li>4. Belts</li> <li>5. Discs</li> <li>6. Sheets</li> <li>7. Specialty</li> </ol> <p>E. Mill work</p> <ol style="list-style-type: none"> <li>1. Squaring</li> <li>2. Sizing</li> </ol> <p>F. Fabrication and assembly</p> <ol style="list-style-type: none"> <li>1. <ol style="list-style-type: none"> <li>1. Sanding pre-assembly</li> <li>2. Routing pre-assembly</li> <li>3. Assembly</li> <li>4. Sanding post-assembly</li> <li>5. Routing post-assembly</li> </ol> </li> </ol> <p><b>IV. FINAL PROJECT CRITIQUE (3 hours, lab)</b></p> <ol style="list-style-type: none"> <li>1. <ol style="list-style-type: none"> <li>A. Student project presentation</li> <li>B. Class critique and discussion</li> </ol> </li> </ol>
<b>Total Lecture Hours:</b>	0
<b>Total Laboratory Hours:</b>	81
<b>Total Hours:</b>	81
<b>Primary Method of Evaluation:</b>	3) Skills demonstration
<b>Typical Assignment Using Primary Method of Evaluation:</b>	Select materials such as water resistant glue, chemically resistant finishes and cabinet accessories that are appropriate for a laundry room cabinet that would house cleaning supplies. Record materials on the Bill of Material and submit to the instructor.
<b>Critical Thinking Assignment 1:</b>	Design and build a mobile kitchen island. Choose and install the appropriate casters for interior home use. After completion, consult instructor for evaluation.
<b>Critical Thinking Assignment 2:</b>	Design and build a cabinet incorporating glass doors. Determine whether tempered glass will be required based on proximity to the floor. Select appropriate hardware and install glass doors in cabinet. After completion, consult instructor for evaluation.
<b>Other Evaluation Methods:</b>	Class Performance

<b>Instructional Methods:</b>	Demonstration Discussion Lab
<b>If other:</b>	
<b>Work Outside of Class:</b>	Course is lab only - minimum required hours satisfied by scheduled lab time
<b>If Other:</b>	
<b>Up-To-Date Representative Textbooks:</b>	
<b>Alternative Textbooks:</b>	
<b>Required Supplementary Readings:</b>	RECOMMENDED PERIODICALS: Fine Woodworking, American Woodworker, and Woodworker West
<b>Other Required Materials:</b>	Safety glasses  Ear plugs  Dust mask  Closed toed shoes
<b>Requisite:</b>	Prerequisite
<b>Category:</b>	Sequential
<b>Requisite course(s): List both prerequisites and corequisites in this box.</b>	Construction Technology-200 or Construction Technology-201 or Construction Technology-202 or Construction Technology-203
<b>Requisite and Matching skill(s): Bold the requisite skill. List the corresponding course objective under each skill(s).</b>	<p><b>Ability to operate woodworking machinery.</b></p> <p>CTEC 200 - Set-up table saw and rip plywood.</p> <p>CTEC 200 - Set-up panel saw and crosscut plywood.</p> <p>CTEC 201 - Set-up and calibrate a dado head.</p> <p>CTEC 201 - Operate a nail gun on a face frame.</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 203 - Square rough lumber into usable stock.</p> <p><b>Ability to machine woodworking joints.</b></p> <p>CTEC 200 - Assemble a butt joint.</p> <p>CTEC 201 - Fabricate a face frame.</p> <p>CTEC 201 - Demonstrate plate joinery in case construction.</p>

	<p>CTEC 202 - Demonstrate the gluing procedure used on a dado joint.</p> <p>CTEC 202 - Machine a dado joint</p> <p>CTEC 203 - Set-up and use router to machine a rabbet cut.</p>
<b>Requisite Skill:</b>	
<b>Requisite Skill and Matching Skill(s): Bold the requisite skill(s). If applicable</b>	
<b>Requisite course:</b>	
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<b>Enrollment Limitations and Category:</b>	
<b>Enrollment Limitations Impact:</b>	
<b>Course Created by:</b>	Jack Selph
<b>Date:</b>	10/14/2016
<b>Original Board Approval Date:</b>	07/17/2017
<b>Last Reviewed and/or Revised by:</b>	Jack Selph
<b>Date:</b>	02/15/2023
<b>Last Board Approval Date:</b>	07/17/2023 effective FALL 2024