



El Camino College
COURSE OUTLINE OF RECORD – Official

Course Acronym:	CTEC
Course Number:	142
Descriptive Title:	Exterior Trades
Division:	Industry and Technology
Department:	Construction Technology
Course Disciplines:	Construction Technology
Catalog Description:	This is a course in construction technology, covering exterior trades. Topics of instruction include window installation, exterior lath, stucco application and texturing, siding, concrete blocks, California Building Code (CBC) and estimating. Practical instruction is provided in the use of tools and materials through construction laboratory work.
Prerequisite:	
Co-requisite:	
Recommended Preparation:	
Enrollment Limitation:	
Hours Lecture (per week):	2.5
Hours Laboratory (per week):	5
Outside Study Hours:	5
Total Course Hours:	135
Course Units:	4
Grading Method:	Letter Grade only
Credit Status:	Credit, degree applicable
Transfer CSU:	Yes
Effective Date:	04/16/2001
Transfer UC:	No
Effective Date:	
General Education: ECC	
Term:	
Other:	

CSU GE:	
Term:	
Other:	
IGETC:	
Term:	
Other:	
Student Learning Outcomes:	<p>SLO #1 Exterior Trades Materials and Methods Students will be able to demonstrate a basic application of materials and methods commonly used in residential construction.</p> <p>SLO #2 Window Opening Flash Students will be able to "flash" a window opening according residential code specifications.</p> <p>SLO #3 Mortar Scratch Coat Students will be able to apply a "scratch coat" of mortar over lath.</p>
Course Objectives:	<ol style="list-style-type: none"> 1. Draw a dimensioned elevation of a framed window opening indicating all framing members from the sole plate up to the cap plate. 2. Discuss and identify CBC requirements relevant to wall framing around window openings. 3. Describe the standard materials, methods, dimensions, code requirements and procedures associated with the installation of residential windows. 4. Apply stucco netting, proportion, mix and apply scratch, brown and finish stucco coats. 5. Describe the general requirements for scaffolds as set forth by the California Occupational Safety and Health Act (Cal/OSHA). 6. Using working drawings for insulation and exterior stucco, calculate the quantities and prepare estimates. 7. Erect one and one half sections of tubular scaffolding to acceptable industry standards. 8. Identify and discuss CBC requirements relevant to thermal insulation.
Major Topics:	<p>I. Overview of exterior trades (5 hours, lecture)</p> <p>A. Safety instructions B. Project requirements</p> <p>II. Overview of exterior trades (10 hours, lab)</p> <p>A. Safety test B. Tour of lab</p> <ol style="list-style-type: none"> 1. Material storage 2. Building sites 3. Safety equipment 4. Large tool storage <p>C. Tool room</p> <p>III. Insulation (5 hours, lecture)</p> <p>A. CBC and ventilation requirements B. Vapor barriers and R-Values</p>

	<p>C. Types of insulation and their applications D. Installation of insulation</p> <p>IV. Insulation (10 hours, lab) A. CBC and ventilation requirements B. Vapor barriers and R-Values C. Types of insulation and their applications D. Installation of insulation</p> <p>V. Exterior wall coverings (15 hours, lecture) A. CBC requirements B. Portland cement plaster: ingredients and proportions for various applications C. Stucco application and texturing</p> <p>VI. Exterior wall coverings (30 hours, lab) A. CBC requirements B. Portland cement plaster: ingredients and proportions for various applications C. Stucco application and texturing</p> <p>VII. Scaffolds and ladders (5 hours, lecture) A. Cal/OSHA general requirements for ladders and scaffolds B. Procedure for the safe erecting of scaffolds</p> <p>VIII. Scaffolds and ladders (10 hours, lab) A. Cal/OSHA general requirements for ladders and scaffolds B. Procedure for the safe erecting of scaffolds</p> <p>IX. Windows (5 hours, lecture) A. Types and styles of windows B. Light and ventilation requirements C. Egress requirements D. Installation</p> <p>X. Windows (15 hours, lab) A. Types and styles of windows B. Light and ventilation requirements C. Egress requirements D. Installation</p> <p>XI. Concrete blocks (10 hours, lecture) A. Types and styles B. Materials and methods C. Mortar mixes and proportioning D. Installation</p> <p>XII. Concrete blocks (15 hours, lab) A. Types and styles B. Materials and methods C. Mortar mixes and proportioning D. Installation</p>
Total Lecture Hours:	45

Total Laboratory Hours:	90
Total Hours:	135
Primary Method of Evaluation:	3) Skills demonstration
Typical Assignment Using Primary Method of Evaluation:	Given a set of plans and specifications, prepare a one-page stucco material estimate. Submit estimate to the instructor.
Critical Thinking Assignment 1:	Given a set of plans, prepare and a one-page estimate for the installation of thermal insulation. Submit estimate to the instructor.
Critical Thinking Assignment 2:	Given a set of working drawings, install a window to meet the CBC egress requirements. Consult instructor for evaluation of installation.
Other Evaluation Methods:	Class Performance Completion Matching Items Multiple Choice Performance Exams True/False Written Homework
Instructional Methods:	Demonstration Guest Speakers Lab Lecture Multimedia Presentations
If other:	
Work Outside of Class:	Problem solving activity Required reading Study Written work (such as essay/composition/report/analysis/research)
If Other:	
Up-To-Date Representative Textbooks:	Leonard Koel. <u>Carpentry</u> . 7th edition American Technical Publishers, 2021
Alternative Textbooks:	
Required Supplementary Readings:	
Other Required Materials:	Calculator Architectural scale Safety glasses Carpenter's nailing apron Appropriate shoes and attire for construction work
Requisite:	
Category:	

Requisite course(s): List both prerequisites and corequisites in this box.	
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(s). If applicable	
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:	Tim Meza
Date:	02/01/2001
Original Board Approval Date:	03/19/2001
Last Reviewed and/or Revised by:	Ross Durand
Date:	03/28/2019
Last Board Approval Date:	1/17/2023