CNST A125: ADDITIONS AND REMODELING

Item	Value
Curriculum Committee Approval Date	12/02/2020
Top Code	095200 - Construction Crafts Technology
Units	5 Total Units
Hours	162 Total Hours (Lecture Hours 54; Lab Hours 108)
Total Outside of Class Hours	0
Course Credit Status	Credit: Degree Applicable (D)
Material Fee	No
Basic Skills	Not Basic Skills (N)
Repeatable	No
Open Entry/Open Exit	No
Grading Policy	Standard Letter (S), • Pass/No Pass (B)

Course Description

An introductory course to the fundamentals of residential remodeling and additions. Topics of instruction include: planning and design, blueprint reading, permit process, and building codes. Practical instruction is given in the use of tools and materials through hands on laboratory work. Transfer Credit: CSU.

Course Level Student Learning Outcome(s)

1. Properly lay out a foundation for an addition from approved plans.
2. Properly form a foundation and install reinforcement and anchor builts per code requirements.
3. Properly perform framing connection for an addition to an existing building.

Course Objectives

- 1. Lay out foundation outline for an addition from approved plans.
- 2. Set up batter boards at proper elevation for a room addition.
- 3. Properly interpret foundation depth and foundation splice details from approved plans.
- 4. Explain the plan check process for a room addition.
- 5. Explain a California roof frame connection for an addition.
- 6. properly interpret material specifications from approved plans.
- 7. Layout, figure and cut the framing components for interior and exterior framed walls of an addition.
- 8. Recognize the different types of house foundations and the consequences of the selection of each type.
- 9. Identify different types of foundation reinforcement.
- 10. Understand the sequence of building inspections.
- 11. Properly interpret shear wall installation procedures from approved plans and shear wall schedule.
- 12. Apply the regulations of the International Building Code.
- 13. Demonstrate many of the efficient framing practices of the Southern California Home Building Industry.

Lecture Content

INTRODUCTION Building Trades Job Safety Construction tools Reading blueprints Planning proces Cost considerations Permits City approval process Building codes Demolition Removal of ground cover Removal of framing and finish materials Temporary bracing for wall removal Permanent bean supports Foundations Layout Types of foundations Foundation connection to existing Reinforcement Forming Placement Framing Types Post and Beam Platform framing Connection to existing building Underpinning Girders, piers, pads and posts Floor Joist Blocking/ Bridging Sub-floor Ventilation Shear panels Prescriptive method Shear panel schedule Shear panel nailing patterns Shear panel material options Strong wall installation Hardy frame installation Hardware installation Girder Hanger Straps Joist hanger holdowns framing anchor installation Wall Framing Plates Studs and posts Header and beams Celing and Roof framing Joists Bridging and blocking Trusses Rafters Roof sheathing Finish Materials Stucco Siding Tile Hardwood Drywall

Lab Content

Building layout Set up batterboards Transfer appropriate levels Set up strings for forming Foundation set up Dig foundation to proper dimensions Form foundation Install reinforcement and anchor bolts Mix and pour concrete Framing Install floor joists Install girders Install floor sheathing Build wood framed walls Build new roof and roof connection

Method(s) of Instruction

- Lecture (02)
- DE Live Online Lecture (02S)
- Lab (04)
- DE Live Online Lab (04S)

Instructional Techniques

1.Detailed multimedia/lectures of each topic covered. 2. Student feedback during each lecture. 3. Detailed illustrative discussions of lecture handout and textbook information. 4. Building plan reading. 5. Full scale/size laboratory construction projects pertaining to subjects discussed during which students work individually and in small groups.

Reading Assignments

Students will be assigned a weekly 1-2 hour reading assignment.

Writing Assignments

Students will spend approximately 1-2 hours per week on written assignments.

Out-of-class Assignments

Students will spend 1-2 hours weekly complete worksheets based on assigned readings.

Demonstration of Critical Thinking

1. Tests and quizzes 2. Lab construction projects

Required Writing, Problem Solving, Skills Demonstration

Students must show math proficiency in building plan reading, identification of construction components and understanding code requirements.

Eligible Disciplines

Construction technology: Any bachelor's degree and two years of professional experience, or any associate degree and six years of professional experience.

Textbooks Resources

1. Required Koel, L.. Carpentry, Sixth ed. Orland Park: American Technical Publishers, 2013