



Course Outline

2026-2027 Catalog

CNST 25 - Construction Framing

Catalog Description

Transfer Status: CSU

Unit(s): 4.00

Lecture: 51.00 Contact hours/102.00 Out of class hours/153.00 Total hours/3.00 Unit(s)

Lab: 51.00 Contact hours/0.00 Out of class hours/51.00 Total hours/1.00 Unit(s)

Total: 102.00 Contact hours/102.00 Out of class hours/204.00 Total hours/4.00 Unit(s)

Course Description: This course is a study of the theory and practical applications of framing in modern construction of residential and commercial buildings. The students will learn safety as it relates to framing construction and the tools and processes used. The sequence and technique of layout, material selection, and construction will be studied and applied.

Objectives

Upon successful completion of this course, the student should be able to:

1. Identify the safety hazards associated with framing activities and tools.
2. Demonstrate the use and care of the tools and equipment used in construction framing.
3. Demonstrate fundamental framing layout.
4. Identify the common components of a framed wall.
5. Describe the common types of roofs and their components.
6. Identify the common components of flooring and ceiling framing systems.
7. Efficiently plumb and square structures.
8. Demonstrate proper use of bracing and shear.
9. Identify the energy factors in framing construction.
10. Describe the different sheeting systems and products for floors and roofs.

Course Content

Topic Titles / Suggested Time Topic

Lecture

<u>Topics</u>	<u>Lec Hrs</u>
Safety in Construction Framing	3.00
Introduction to Construction Framing	3.00
Introduction to Framing Systems and Materials	3.00
Introduction to Framing Layout	6.00
Introduction to Floor Framing	6.00
Introduction to Wall Framing	6.00
Introduction to Ceiling Framing	6.00
Introduction to Roof Systems	3.00
Introduction to Roof Framing	6.00
Introduction to Modular Framing and Trusses	6.00
Introduction to Sheeting Systems	3.00
Total Hours:	51.00

Lab

<u>Topics</u>	<u>Lab Hrs</u>
Construction Framing Safety and Lab Procedures	6.00
Introduction to Construction Framing Tools and Equipment	3.00
Framing Layout	3.00
Floor Framing	6.00
Wall Framing	9.00
Ceiling Framing	6.00
Roof Systems	3.00
Roof Framing	9.00
Modular building and Trusses	3.00

Topics**Lab Hrs**

Sheeting Systems

3.00

Total Hours: 51.00**Methods of Instruction**

- A. Demonstrations
- B. Homework: Students are required to complete two hours of outside-of-class homework for each hour of lecture
- C. Lecture
- D. Multimedia Presentations
- E. Laboratory Experiments

Methods of Evaluation

- A. Exams/Tests
- B. Quizzes
- C. Homework
- D. Lab Projects

Examples of Assignments**Reading Assignments**

1. Read the section on roof framing and be prepared to discuss in class.
2. Read assigned trade journal article and be prepared to discuss in class.

Writing Assignments

1. Research "balloon framing" online and write a one-page essay describing the process and why it is no longer used for modern construction.
2. Write a one-page essay explaining the three main methods of framing 90 degree corners, explaining the strengths and weaknesses of each.

Out-of-Class Assignments

1. Go to a local construction site, and from a safe distance observe and document a framing activity for one hour noting; operation performed, tools used, materials used, employees involved.
2. Using the Butte College Field House Plans, determine the sizing of the studs on the exterior walls and how many will be required to complete the walls.

Recommended Materials of Instruction

Simpson, Scot. (2012). Complete Book Of Framing. *John Wiley and Sons, 2nd.*

Other Learning Materials

Swanson Speed Square Manual

All tools listed in the Core Program Guide.

Minimum Qualifications

Construction Management
Building Codes And Regs
Construction Technology
Engineering (Masters Required)
Engineering Technology (Masters Required)
Industrial Technology
Manufacturing Technology

Created/Revised by: Williams, Tom

Date: 02/25/2019