

## **COURSE INFORMATION**

<b>Course prefix/No.:</b>	<b>BCT 206</b>
<b>Course Title:</b>	<b>Roof Construction</b>
<b>Lecture Hours/Week:</b>	<b>1.0</b>
<b>Lab Hours/Week:</b>	<b>3.0</b>
<b>Credit Hours/Semester</b>	<b>2.0</b>

[\*Distance Learning Attendance/VA Statement\*](#)  
[\*Textbook Information\*](#)

## **COURSE DESCRIPTION**

This course is a continuation in a series of courses. The course is a study of roof systems and roofing materials for residential and light commercial construction.

## **COURSE COMPETENCIES**

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

### **Module 1 - Scaffolds, Ladders and Sawhorses**

- Erect and dismantle metal scaffolding in accordance with recommended safe procedures.
- Follow a recommended procedure to inspect a scaffold for safety.
- Describe the recommended capacities of various parts of a scaffold.
- Construct a scaffold work platform.
- Identify and describe the components of a fall protection system.
- Describe the safety concerns for mobile metal tubular scaffolds.
- Build safe staging area using roof brackets.
- Safely set up, use, and dismantle pump jack scaffolding.
- Describe the safe use of ladders, ladder jacks, stepladders, and sawhorses.

### **Module 2 - Roof Framing**

- Describe roof types.
- Define the various roof framing terms.
- Identify the members of gable, gambrel, hip, intersecting, and shed roofs.
- Lay out a common rafter and erect a gable roof.
- Lay out and install gable end studs.
- Lay out a hip rafter and hip jack rafters.
- Lay out a valley rafter and valley jack rafters.
- Describe and perform the safe and proper procedure to erect a trussed roof.
- Apply roof sheathing.
- Estimate the quantities of materials used in a roof frame.

### **Module 3 - Roofing**

- Define roofing terms.
- Describe and explain the uses of roofing felt underlayment, organic or fiber glass asphalt shingles, and roll roofing.
- Correctly install roofing felt underlayment, asphalt shingles and roll roofing.
- Correctly apply flashing to valleys, sidewalls, chimneys, and other roof obstructions.
- Estimate needed roofing materials for a job.

### **REQUIREMENTS**

#### *Attendance Policy*

The college attendance policy stated in the college handbook will be honored.

#### *Academic Honesty*

Students are expected to adhere to the college policy regarding student conduct as stated in the college handbook.

#### *Assignments*

Students are expected to complete all assignments and any supplementary exercises designated by the instructor.

### **EVALUATION STRATEGIES/GRADING**

Students must complete all modules, including assignments, projects, labs, and tests. Students must earn at least a "C" in order for the course to serve as a prerequisite and for the course to apply towards a certificate.

#### ***Grading Scale***

A = 90-100

B = 80-89

C = 70-79

D = 60-69

F = 0-59

#### ***Evaluation Method***

Tests/Projects (minimum of three total)	16.66% for each Module
Work Attitude*	8.32% for each Module
Lab	8.32% for each Module

33.3 X 3 module grades = 100% Final Grade

**\*Work Attitude is defined as:**

- Participation
- Cooperation
- Appearance
- Effort
- Safety
- Responsibility
- Professionalism
- Attendance
- Self Motivation
- Works Independently

**ENTRY LEVEL SKILLS**

The student must be able to read and solve basic mathematical equations.

**PREREQUISITES**

RDG 031 or equivalent, AET 103, BCT105, BCT112

**CO-REQUISITES**

None

**METHODS OF INSTRUCTION**

Lectures, reading assignments, projects, discussions, video presentations, multimedia presentations, and web content are the major teaching methods used in this course.

**LAB EXERCISES**

See addendum or instructor for additional details.