

ATRF-2790: JOURNEYMAN'S REVIEW AND CERTIFICATION

Cuyahoga Community College

Viewing: ATRF-2790 : Journeyman's Review and Certification

Board of Trustees:

January 2025

Academic Term:

Spring 2025

Subject Code

ATRF - Applied Industrial Technology - Roofing

Course Number:

2790

Title:

Journeyman's Review and Certification

Catalog Description:

Overview of Roofer's apprenticeship curriculum to prepare for Journeyman Certification Exam. Upon successful completion of this course, students will have completed the related-instruction component of the apprenticeship program.

Credit Hour(s):

4

Lecture Hour(s):

4

Requisites

Prerequisite and Corequisite

Departmental approval: Admissions to Roofer's Apprenticeship Program.

Outcomes

Course Outcome(s):

Produce the roofing material layouts to be used on the final exam.

Objective(s):

1. Cut the material for a specified roofing mock-up.
2. Measure roofing mock-up and calculate area of mock-up to determine the needed materials.
3. Identify the correct corner flashings needed for the roofing mock-up.
4. Estimate the material needed to make a cone flashing for a pipe penetration in the mock-up.
5. Discuss the detailing of different features and components of various roofing systems.

Course Outcome(s):

Identify one's strengths and areas of improvement as a Roofer.

Objective(s):

1. Review material learned over apprenticeship program.
2. Discuss on-the-job training experiences.

Course Outcome(s):

Utilize math skills to calculate area and determine appropriate amount of materials needed.

Objective(s):

1. Demonstrate how to calculate area and perimeter.
2. Demonstrate how to determine the number of squares based on the area calculation.

Course Outcome(s):

Select the appropriate tools and equipment needed for the built-up and single-ply mock-ups for the final exam.

Objective(s):

1. Explain tools needed for installing a single-ply roof.
2. Discuss tools needed for installing a built-up roof.
3. Explain safe work practices for operating equipment when working on built up roofing systems.

Methods of Evaluation:

1. Practice Mock-Ups
2. Participation
3. Final Certification Exam

Course Content Outline:

1. Steep Slope Roofs
 - a. Materials
 - b. Flashings
 - c. Installation Techniques
 - d. Detailing different features and components
 - e. Gutter systems
 - f. Safety
2. Built Up Roofs
 - a. Substrate and Surface preparation
 - b. Types of Substrates
 - c. Types of Felts/Membrane Roles
 - d. Insulation
 - e. Flashings
 - f. Installation Techniques
 - g. Detailing different features and components
 - h. Safe work practices for operating equipment
 - i. Detail Mock-Ups
3. Single Ply Roofs
 - a. Substrate and Surface preparation
 - b. Installation of insulation
 - c. Membrane attachment methods
 - d. Flashings
 - e. Detailing different features and components
 - f. Installation Techniques
 - g. Detail Mock-Ups
 - h. Safe work practices
4. Roofers Math
 - a. Tape Measure
 - b. Area calculation
 - c. Perimeter calculation
 - d. Squares calculation
5. Green Roofing
 - a. Types
 - b. Flashings
 - c. Detailing different features and components

- d. Installation Techniques
- e. Safe work practices

Resources

Single Ply Roofing Instructors Guide. United Union of Roofers, Waterproofers, and Allied Workers National Apprenticeship Program, 2023.

Instructor's Guide for Built-Up Roofing. United Union of Roofer's, Waterproofer's, and Allied Workers National Apprenticeship Training Program, 1997.

Green Roofing and Waterproofing Technologies Instructor Guide. United Union of Roofers, Waterproofers, & Allied Workers, 2020.

Steep Slope Roofing Instructor's Guide. United Union of Roofer's Waterproofers, and Allied Workers National Apprenticeship program, 2020.

Resources Other

1. *Roofer's Training Resource Center*. Rooferstrc.com (<http://catalog.tri-c.edu/courseadmin/5293/Rooferstrc.com>). 2024.
2. *National Single Ply Qualified Evaluator Video for Instructors*. United Union of Roofers, Waterproofers, and Allied Workers National Apprenticeship Program, 2023.

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