

# ATRF-2790: JOURNEYMAN'S REVIEW AND CERTIFICATION

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## 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.

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**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.

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**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.

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**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.

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**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.

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

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

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

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## 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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