

APPLIED INDUSTRIAL TECHNOLOGY (ROOFING) (ATRF)

ATRF-1010 Introduction to Roofing

1 Credit

Introduction to the roofing apprenticeship including an in-depth overview of OSHA regulations as related to the construction industry with a focus on roofing. Covers union history, requirements of the apprentice, and the Labor-Management relationship as it pertains to the Joint Apprenticeship Committee. An overview of policies and procedures regarding apprentices and safety principles.

Lecture: 1 hours

Prerequisite(s): Departmental approval: admission to Roofer's Apprenticeship Program.

ATRF-1020 Introduction to Roofing Tools, Materials, and Calculations

2 Credits

Covers the various types of roofing tools and materials used in roofing. Includes measurements and calculations needed to accurately estimate materials needed for specified job.

Lecture: 2 hours

Prerequisite(s): Departmental approval: admission to Roofer's Apprenticeship program.

ATRF-1030 Steep Slope Roofing I

2 Credits

Covers measurements and calculations, tools, equipment, and materials needed for installation of residential and small commercial roofing. Includes procedures for moving and hoisting roofing materials, including fall protection, rigging and signaling, and utility location procedures.

Lecture: 2 hours

Prerequisite(s): Departmental approval: admission to Roofer's Apprenticeship program.

ATRF-1040 Steep Slope Roofing II

2 Credits

Covers installation techniques for residential and small commercial roofing. Includes deck inspection and preparation, ventilation, underlayment application, flashing installation, and shingle installation.

Lecture: 2 hours

Prerequisite(s): Departmental approval: admission to Roofer's Apprenticeship program.

ATRF-1050 Single Ply Roofing I

4 Credits

Covers installation of membranes for single ply roofing, including EPDM systems.

Lecture: 4 hours

Prerequisite(s): Departmental approval: Admission to Roofer's Apprenticeship program.

ATRF-1070 Roofer's Safety

3 Credits

Covers construction safety and health applied to the roofing industry following the Occupational Safety and Health Administration (OSHA) curriculum for the 30-hour Outreach Training Program for construction industry safety and health. Upon completion of course materials and required attendance hours, students receive their OSHA Construction 30-hour Outreach completion cards. Also includes basic first aid and CPR/AED certification through the Emergency Care and safety Institute (ECSI).

Lecture: 3 hours

Prerequisite(s): Departmental approval: admission to Roofer's Apprenticeship program.

ATRF-1080 Applied Roofer's Math

1 Credit

Covers whole numbers, addition, subtraction, division, multiplication, fractions, decimals and area calculations used in roofing. Includes reading a rule/tape measure.

Lecture: 1 hours

Prerequisite(s): Departmental approval: Admission to Roofer's Apprenticeship program.

ATRF-2010 Union Heritage and Qualified Rigger and Signal Person

1 Credit

Covers history of the Roofing and Waterproofing industry. Also includes rigging and signaling techniques. Upon successful completion of the course, students will earn their OSHA Qualified Rigger and Signal Person certification.

Lecture: 1 hours

Prerequisite(s): Departmental approval: Admission to Roofer's Apprenticeship program.

ATRF-2020 Built Up Roofing I

2 Credits

Cover materials, tools, and safety protocols involved in the installation of Built-up Roof (BUR) systems.

Lecture: 2 hours

Prerequisite(s): Departmental approval: admission to Roofer's Apprenticeship program.

ATRF-2040 Built Up Roofing II

2 Credits

Cover's insulation, felts, flashing components and details, surfacing of felts, and safe work practices for Built- Up Roofing systems. Includes preparation and installation procedures.

Lecture: 2 hours

Prerequisite(s): Departmental approval: admission to Roofer's apprenticeship program.

ATRF-2050 Single Ply Roofing II

4 Credits

Covers installation and detailing of Hot-Air Welded Roofing Systems.

Also includes installation in accordance with warranty specifications and warranty inspections.

Lecture: 4 hours

Prerequisite(s): Departmental approval: admission to Roofer's Apprenticeship program.

ATRF-2060 Green Roofing Technologies

2 Credits

Introduction to green roofing technology including cool roofs, insulated roofs, and the related technologies used to modify most traditional roofing systems to improve solar reflectance and thermal emittance.

Lecture: 2 hours

Prerequisite(s): Departmental approval: admission to Roofer's Apprenticeship program.

ATRF-2100 Financial Literacy for Roofers

1 Credit

Covers personal budgeting and financial planning. Emphasis on the planning one's budget based on intermittent/seasonal working schedules.

Lecture: 1 hours

Prerequisite(s): Departmental approval: admission to Roofer's Apprenticeship program.

ATRF-2130 Steep Slope Roofing III

2 Credits

Covers installation of wood shingles and wood shake roofs, slate and tile roofs.

Lecture: 2 hours

Prerequisite(s): Departmental approval: admission to Roofer's Apprenticeship program.

ATRF-2790 Journeyman's Review and Certification

4 Credits

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.

Lecture: 4 hours

Prerequisite(s): Departmental approval: Admissions to Roofer's Apprenticeship Program.