APPR 188A: ORIENTATION; SAFETY & BEGINNING RESIDENTIAL SHEET METAL INSTALLATION (SPECIALIST 1A)

Foothill College Course Outline of Record

Heading	Value
Units:	1.5
Hours:	6 lecture, 48 laboratory per quarter (54 total per quarter)
Prerequisite:	Per California Code of Regulations, this course is limited to students admitted to the Sheet Metal Specialist Apprenticeship Program.
Degree & Credit Status:	Degree-Applicable Credit Course
Foothill GE:	Non-GE
Transferable:	None
Grade Type:	Letter Grade (Request for Pass/No Pass)
Repeatability:	Not Repeatable

Student Learning Outcomes

- A successful student will be able to Identify common tools used in residential sheet metal installation.
- A successful student will be able to demonstrate and apply layout and fabrication skills to basic gutter and downspout miters.

Description

An introduction to residential and light commercial sheet metal installation, safety, tools, materials, equipment and related industry practices. Emphasis will be on safety and soldering techniques.

Course Objectives

The student will be able to:
A. Identify common tools used in sheet metal installation.
B. Understand and apply safe working practices in residential sheet metal work.
C. Demonstrate and apply layout and fabrication skills to basic gutter and downspout miters.
D. Classify common residential sheet metal products.

Course Content

A. Common Tools
1. Measuring tools
2. Snips
3. Hammers, mallets, pliers and chisels
4. Screwdrivers and punches
B. Safe Working Practices
1. Working safely
2. Preventing accidents
3. Handling heavy loads
C. Basic Gutter and Downspout Miters
1. Tinning/soldering demonstration
2. Practice on shop project assignments
3. Beginning downspouts and gutter
5. Sample projects
D. Common Residential Sheet Metal Products
1. Types and components
2. Residential duct components and gutter types

Lab Content

A. Practicing safe use of tools and equipment
B. Measuring
C. Accuracy in layout
D. Fabrication of gutter and downspout products

Special Facilities and/or Equipment

A. Laboratory equipped with sheet metal tools, materials and soldering equipment.

Method(s) of Evaluation

Methods of Evaluation may include but are not limited to the following:

A. Results of written quizzes and final exam
B. Satisfactory completion of class projects
C. Maintenance of a student's workbook with questions drawn from text

Method(s) of Instruction

Methods of Instruction may include but are not limited to the following:

A. Lecture
B. Discussion
C. Laboratory
D. Demonstration

Representative Text(s) and Other Materials

International Training Institute. Residential HVAC Finish Installer, International Training Institute for the Sheet Metal and Air Conditioning Industry Student Manual. Alexandria, VA: International Training Institute for the Sheet Metal and Air Conditioning Industry, 2007.

International Training Institute. Residential HVAC New Construction Installer, International Training Institute for the Sheet Metal and Air Conditioning Industry Student Manual. Alexandria, VA: International Training Institute for the Sheet Metal and Air Conditioning Industry, 2007.

NOTE: These are the standard Sheet Metal textbooks/workbooks used for this course. Although one or more may not be within 5 years of the required published date, they are the most current books used when teaching this course.

Types and/or Examples of Required Reading, Writing, and Outside of Class Assignments

A. Reading assignment from the International Training Institute Residential HVAC Installer student manual to determine downspout placement according to roof area and climate.

B. Writing assignment from the International Training Institute Residential Residential HVAC Finish Installer to record design and measurements for a particular downspout.

Discipline(s)

Sheet Metal