

Course Code: HVC 114

Course Title: Ductwork Fabrication

Department: Applied Sciences and Technologies

Effective Date: Summer 2026

PCS Code: 1.2 - Occupational/Technical Instruction

CIP Code: 47.0201

Repeatability: 0

Credit Hours

Catalog Notation: 1-2-2

Credit Hour Distribution:

Lecture: 1

Lab: 2

Clinical: 0

Total: 2

General Course Information

Catalog Description

Basic tool skills, job safety, and fabrication techniques for HVAC ductwork components and systems.

General Course Objectives

- Students will demonstrate basic knowledge of HVAC ductwork materials, system components, fabrication, assembly, and tools.
- Students will perform entry-level component fabrication tasks using current methods, tools, and equipment.

Minimum Placement Levels

English	Reading	Math
None	None	Placement out of MAT 060

Prerequisites

None

Methods of Evaluation

A minimum of 10 homework assignments, 10 quizzes, 2 tests (one of which can be the final exam), and 10 lab projects.

Instructional Materials and Additional Supplies

Sheet Metal Skills, 978-1-60525-325-1

Course Content

General Learning Outcomes (GLOs)

- Technology: Students will demonstrate the ability to evaluate, select, and appropriately use current and emerging tools.

Course Segments and Student Learning Outcomes

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Basic Tool Skills and Safety	1. Properly use current tools and equipment for HVAC installation tasks. 2. Exhibit and explain safe work practices.	2	4	0
Materials	1. Discuss limitations and appropriate applications of duct materials. 2. Explain appropriate connection methods between dissimilar duct materials.	2	4	0
Design	1. Measure existing conditions and evaluate design constraints. 2. Perform basic duct sizing computations. 3. Apply accepted design practices.	5	10	0
Fabrication	1. Lay out, cut, and assemble duct transition components.	6	12	0

Total Contact Hours

Lecture Hours	Lab Hours	Clinical Hours
30	30	0