Course Information Form (CIF)

Course Code: HVC 116
Course Title: HVAC Trade Computations

Department: Applied Sciences and Technologies
PCS Code: 1.2 - Occupational/Technical Instruction
CIP Code: 47.0201
Repeatability: 0

Effective Date: Summer 2026

Credit Hours

Catalog Notation: 2-0-2
Credit Hour Distribution:

Lecture: 2	Lab: 0	Clinical: 0	**Total: 2**

General Course Information

Catalog Description

Fractions, area, volume, basic geometry, and algebra for HVAC applications.

General Course Objectives

The student will select and apply appropriate mathematic processes to solve common HVAC problems.

Minimum Placement Levels

English	Reading	Math
None	None	Placement out of MAT 060

Prerequisites

None

Methods of Evaluation

At least 6 quizzes, 1 midterm exam, and 1 final exam. In-class and/or homework assignments recommended.

Instructional Materials and Additional Supplies

Math for HVACR, Xavier. 2025, 2nd Edition. ISBN: 9798888174487

Course Content

General Learning Outcomes (GLOs)

- Reasoning and Inquiry: Students will demonstrate the ability to solve problems using deductive reasoning and logic, quantitative reasoning, or the scientific method.

Course Segments and Student Learning Outcomes

Course Segment	Learning Outcomes	Lecture Hours	Lab Hours	Clinical Hours
Fractions	1. Add and subtract distances measured in feet and inches. 2. Convert distances measured in feet and inches to decimal foot distances.	6	0	0
Area	1. Compute areas of circles, triangles, and rectangles. 2. Compute floor areas of buildings from measurement data.	6	0	0
Volume	1. Compute volumes of ducts and buildings. 2. Compute flow rates and air change durations.	4	0	0
Basic Geometry	1. Compute right triangle elements using Pythagorean Theorem.	4	0	0
Algebra	1. Perform duct size computations using provided formulas. 2. Discuss inputs and outputs of HVAC load sizing computations. 3. Compute electrical solutions using Ohm's Law.	10	0	0

Total Contact Hours

Lecture Hours	Lab Hours	Clinical Hours
30	0	0