

HVAC IVA

HVAC - 2410 002

Course Description

Prereq: HVAC 2320. Fan types, measure air flow, volume and velocity using various instruments. Principles of hydronics, steam heat and heat distribution units as well as basic principles of oil furnace heat systems.

Course Student Learning Outcomes

- Learn of a variety of fan types, be able to measure air flow including volume and velocity using a variety of instruments. Principles of hydronics, steam heat, heat distribution, and principles of oil furnace heat systems.
- Learn the necessary trade vernacular to communicate effectively with customers, other trades people, and suppliers.

Engagement Plan

- I will respond to email within 24 hours. The best way to contact me is via the Canvas Inbox, as I will prioritize this email over other modes of communication.

Required Text or Materials

Title: Heating, Ventilating, and Air Conditioning, Level 4, 5th edition

ISBN: 0-13-518506-8

Publisher: NCCER/Pearson

Title: Gas and Oil Heating

Subtitle: Preparing for the NATE Exam

ISBN: 978-1-61607-164-6

Publisher: RSES

Title: Air Distribution

Subtitle: Preparing for the NATE Exam

ISBN: 978-1-61607-137-0

Publisher: RSES

For more information on textbook accessibility, contact Accessibility & Disability Services at ads@slcc.edu.

Brief Description of Assignments/Exams

The following schedule will be our guide to learning this semester. As usual, there are assignments in Pearson for each module. Due to their nature, scheduled labs will be performed as a class and cannot be made up.

August 28, 2025

HVAC IVA Introduction

Math Review

Module 1 Section 1 Introduction to Water Treatment

Canvas—Module 1 Assignments and quizzes.

September 4, 2025

Module 1 Section 2 Mechanical Water Treatment Equipment

Module 1 Section 3 System-Specific Water Treatment Problems

September 11, 2025

Module 1 Review

Module 2 Section 1 Indoor Air Quality

Module 2 Section 2 Sources of Building Contaminants

September 18, 2025

Module 1 Exam

Module 2 Section 3 Achieving Acceptable Indoor Air Quality

Module 2 Section 4 IAQ Equipment and Solutions

Module 2 Review

Canvas—Module 2 Assignments and quizzes.

September 25, 2025

Module 2 Exam

Module 3 Section 1 Energy Recycling and Reclamation

Canvas—Module 3 Assignments and quizzes.

October 2, 2025

Module 3 Section 2 Energy-Demand Reduction and Ice Storage

Module 3 Review

October 9, 2025

Module 3 Exam

Module 4 Section 1 Basic Digital Controllers

Canvas—Module 4 Assignments and quizzes.

October 16, 2025 No Class—Fall Break

October 23, 2025

Module 4 Section 2 Building Management System Architecture

Module 4 Section 3 Building Management System User Functions

October 30, 2025

Module 4 Section 4 System Control Strategies

Module 4 Section 5 Interoperability

Module 4 Review

November 6, 2025

Module 4 Exam

Module 5 Section 1 Air Properties and Laws

Module 5 Section 2 Psychrometrics

Canvas—Module 5 Assignments and quizzes.

November 13, 2025

Module 5 Section 3 The Air Balancing Process

Module 5 Section 4 Air Balancing

Module 5 Review

November 20, 2025

Module 5 Exam

Module 6 Section 1 Boiler Startup and Shutdown

Canvas—Module 6 Assignments and quizzes.

November 27, 2025 No Class—Happy Thanksgiving

December 4, 2025

Module 6 Section 2 Chillers and Water System Startup and Shutdown

Module 6 Section 3 Air Handling and Rooftop System Startup and Shutdown

Module 6 Review

December 11, 2025

Module 6 Exam

Course Review and Final Exam Preparation

December 18, 2025 Final Exam

Assignment Schedule

Due Date	Assignment Name	Assignment Type	Points
	FHP Motor Selection	Quiz	34
	Introduce Yourself	Discussion	0
	Introduce Yourself	Discussion	0
	Introduce Yourself	Discussion	0
	Module 2: Indoor Air Quality	Quiz	25
	Pearson Online Assignments for Module 1	Assignment	44
	Pearson Online Assignments for Module 2	Assignment	52
	Pearson Online Assignments for Module 3	Assignment	32
	Pearson Online Assignments for Module 4	Assignment	62

Due Date	Assignment Name	Assignment Type	Points
	Pearson Online Assignments for Module 5	Assignment	56
	Pearson Online Assignments for Module 6	Assignment	40
	Replacement Motor Selection	Assignment	0
9/18/25	Syllabus Quiz	Quiz	14

Grading Scale

Grade Range

A	100% to 94%
A-	< 94% to 90%
B+	< 90% to 87%
B	< 87% to 84%
B-	< 84% to 80%
C+	< 80% to 77%
C	< 77% to 74%
E	< 74% to 0%

How to Navigate to Canvas

Institutional Policies

As members of our academic community, we would like to invite you to review the Institutional Syllabus which covers important policies and procedures. This document

contains important links for students on the code of student rights and responsibilities, academic integrity, and grading policies, Title IX and other important acknowledgements. By familiarizing yourself with this information, you can help us create a safe and respectful environment for everyone.

For more information, navigate to the Institutional Policies tab on the [Institutional Syllabus](#) page.

Learning Support and Tutoring Services

We are pleased to offer a range of tutoring and learning support services to help you achieve your academic goals. Whether you need assistance with a specific subject or want to improve your study skills, you have many options for tutoring or other support.

To learn more about the services we offer and how to access them, visit the [Institutional Syllabus](#) page under the Tutoring and Learning Support tab. We encourage you to take advantage of these resources to help you succeed in your studies. If you have any questions or would like to schedule a tutoring session, please don't hesitate to reach out to us. We are here to support you in any way we can.

Advising and Counseling Support Services

At our institution, we are committed to supporting your academic and personal growth. That's why we offer a range of advising and counseling services to help you navigate the challenges of college life. To learn more about the resources available to you and how to access them, visit the [Institutional Syllabus](#) page under the Advising and Counseling Support Services tab. Our advising team and the support centers across campus are here to support you in achieving your goals and overcoming any obstacles you may face.

Student Academic Calendar

As students you should be aware of all important dates in the semester, such as the day that courses begin and end, as well as the drop date and the last day to withdraw. To learn more about those dates, navigate to the Student Academic Calendar below:

[SLCC Student Academic Calendar](#)