



South Central College

## HVAC 2510 Advanced Heating Lab II

### Course Outcome Summary

#### Course Information

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| <b>Description</b>   | This course is designed to give the student a more hands on learner guided course work. The student will be required to work on additional lab projects provided by the instructor, industry or the student themselves. Manufacturer instillation guides will be studied and detailed final project will be handed in. The student will practice troubleshooting techniques and get involved in helping fellow students in the lab area to sharpen their communication skills. To be successful in this class the student will need to be enrolled in the HVAC program, be in their second or third semester and have already taken HVAC2320. |
| <b>Total Credits</b> | 2   |
| <b>Total Hours</b>   | 64  |

#### Types of Instruction

Instruction Type

Credits/Hours

Lab

#### Pre/Corequisites

None

#### Institutional Core Competencies

Communication - Students will be able to demonstrate appropriate and effective interactions with others to achieve their personal, academic, and professional objectives.

Critical and Creative Thinking - Students will be able to demonstrate purposeful thinking with the goal of using a creative process for developing and building upon ideas and/or the goal of using a critical process for the analyzing and evaluating of ideas.

#### Course Competencies

##### 1. Demonstrate safety techniques.

###### Learning Objectives

- Identify Safety practices found in an instillation manual.
- Identify gas leak detection methods.
- Discuss electrical safety.
- Assist other students in proper safety techniques.

**2. Interpret system problems by using troubleshooting techniques.**

**Learning Objectives**

Review a manual's flow chart.  
Interpret the diagnostic flash code.  
Observe the sequence of operation.  
State the system problem.

**3. Investigate gas pressure testing.**

**Learning Objectives**

Perform gas pressure testing.  
Follow manufacturer service manual for proper gas pressure.  
Adjust gas pressure.  
Check system for gas leaks.

**4. Produce a project summarizing an instillation manual.**

**Learning Objectives**

Compare an actual instillation and a manufacturer's instillation guide.  
Describe some possible problems with the field instillation.  
Recognize the safety issues with the field installed equipment.

**5. Evaluate the need for good communication.**

**Learning Objectives**

Recognize the importance of good customer communication.  
Demonstrate teamwork in the lab.  
Assist fellow students.

**6. Exercise the ability to be self motivated.**

**Learning Objectives**

Assume personal responsibility for staying on task.  
Identify work responsibilities.  
Complete projects in a timely manner.

**SCC Accessibility Statement**

South Central College strives to make all learning experiences as accessible as possible. If you have a disability and need accommodations for access to this class, contact the Academic Support Center to request and discuss accommodations. North Mankato: Room B-132, (507) 389-7222; Faribault: Room A-116, (507) 332-7222.

Additional information and forms can be found at: [www.southcentral.edu/disability](http://www.southcentral.edu/disability)

This material can be made available in alternative formats by contacting the Academic Support Center at 507-389-7222.