

# HVAC Technology (2023)

The following competencies are to be taught within ALL application level courses offered in your school's approved pathway. 0

- 1 Demonstrate an understanding of industry standards for personal safety including the safe use of tools, equipment, and hazardous materials 0.1
- 2 Demonstrate time management skills. 0.2
- 3 Create and utilize employment documents including a resume and portfolio. 0.3
- 4 Demonstrate job seeking and interview skills. 0.4
- 5 Understand and respond to performance reviews. 0.5

Benchmark 1 1

- 1 Safely utilize and maintain tools common to the mechanical trades industry. 1.1
- 2 Describe the heating and cooling process. 1.2
- 3 Demonstrate the use of a duct calculator and the formulas used to calculate heat loads. 1.3
- 4 Apply layout to HVAC projects. 1.4
- 5 Describe various types of heating and cooling systems, including the pros, cons and applications of each. 1.5
- 6 Demonstrate basic electrical knowledge of how electrical circuits work and how they are used within the industry. 1.6
- 7 Install basic and programmable heat/cool thermostats. 1.7
- 8 Describe thermostat wire and identify what each color should be used for. 1.8
- 9 Research future trends in “green technology” for the HVAC industry. 1.9
- 10 Troubleshoot and repair problems with HVAC systems. 1.10
- 11 Correctly measure, cut and join piping/tubing. 1.11
- 12 Demonstrate proper soldering techniques. 1.12
- 13 Demonstrate ability to maintain appropriate maintenance documentation. 1.13