AUBURN • CHARLTON • DUDLEY • NORTH BROOKFIELD • OXFORD • PAXTON
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Southern Worcester County Regional Vocational School District
BAY PATH REGIONAL VOCATIONAL TECHNICAL HIGH SCHOOL
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Bethann G. Cormier
Curriculum Coordinator

VC.VHVAC.2.A.01.01	A:Shop Safety and Refrigerant Regulations	Describe and demonstrate the safe use of hand and power tools.
VC.VHVAC.2.A.03	A:Shop Safety and Refrigerant Regulations	Demonstrate and use refrigeration tools according to industry standards.
VC.VHVAC.2.A.03.02	A:Shop Safety and Refrigerant Regulations	Demonstrate techniques in the use of electrical meters.
VC.VHVAC.2.A.03.04	A:Shop Safety and Refrigerant Regulations	Demonstrate techniques on setting-up and operating a variety of gas torches and regulators.
VC.VHVAC.2.B.01	B:Reading Technical Drawings and Blueprints	Read and interpret prints.
VC.VHVAC.2.C.01.01	C:HVAC&R Fundamentals and Refrigeration Principles	Explain the importance of HVAC&R in modern society.
VC.VHVAC.2.C.01.02	C:HVAC&R Fundamentals and Refrigeration Principles	Explain the basic principles of heating, ventilating, and air conditioning & refrigeration systems.
VC.VHVAC.2.C.01.03	C:HVAC&R Fundamentals and Refrigeration Principles	Define heat energy and explain how it is transferred: convection, conduction, and radiation.
VC.VHVAC.2.D.01	D:Pipe Joining Techniques	Demonstrate piping practices.
VC.VHVAC.2.D.01.01	D:Pipe Joining Techniques	Identify, describe the use of, and install various types and sizes of steel pipe and copper tubing.
VC.VHVAC.2.D.01.02	D:Pipe Joining Techniques	Identify and install brass, steel, and copper fittings.
VC.VHVAC.2.D.01.06	D:Pipe Joining Techniques	Identify and install different types of pipe hangers and supports.
VC.VHVAC.2.D.01.08	D:Pipe Joining Techniques	Demonstrate brazing techniques using inert gas to prevent oxidation.
VC.VHVAC.2.D.01.09	D:Pipe Joining Techniques	Describe and demonstrate safety requirements for pressure testing a refrigeration system.
VC.VHVAC.2.E.01	E:Electrical Components and Wiring	Demonstrate wiring HVAC&R controls, motors, and circuits.
VC.VHVAC.2.E.01.02	E:Electrical Components and Wiring	Test and troubleshoot electrical circuits and devices using electrical meters.
VC.VHVAC.2.E.01.03	E:Electrical Components and Wiring	Describe and apply properties of electrical conductors and insulators.
VC.VHVAC.2.E.01.04	E:Electrical Components and Wiring	Describe and wire series, parallel and series/parallel circuits.
VC.VHVAC.2.E.01.05	E:Electrical Components and Wiring	Explain concepts relating to direct current (DC) and alternating current (AC), Ohm's law, Watts' law and how they pertain to volts, amperes, ohms, impedances, and watts.
VC.VHVAC.2.E.01.06	E:Electrical Components and Wiring	Explain concepts relating to resistive, capacitive, and inductive loads.
VC.VHVAC.2.E.01.07	E:Electrical Components and Wiring	Determine voltage and current ratings of electrical devices.
VC.VHVAC.2.E.01.08	E:Electrical Components and Wiring	Explain and apply principles of electrical circuit protection.
VC.VHVAC.2.E.01.09	E:Electrical Components and Wiring	Explain and apply principles of electrical grounding.
VC.VHVAC.2.E.01.10	E:Electrical Components and Wiring	Describe and demonstrate the application of various types of electric motors.
VC.VHVAC.2.E.01.11	E:Electrical Components and Wiring	Describe, develop, and interpret schematics and other wiring diagrams.
VC.VHVAC.2.E.01.12	E:Electrical Components and Wiring	Identify and describe factory and field wiring, high and low voltage, details, and legends on wiring diagrams.
VC.VHVAC.2.E.01.13	E:Electrical Components and Wiring	Demonstrate the use of wire isolation and line transformers, relays, contactors, timers, sequencers and switches.
VC.VHVAC.2.E.01.14	E:Electrical Components and Wiring	Explain and demonstrate the use of overloads, capacitors, pressure switches, solenoids, and thermostats.
VC.VHVAC.2.E.01.15	E:Electrical Components and Wiring	Demonstrate troubleshooting techniques with electrical motors.
VC.VHVAC.2.E.01.16	E:Electrical Components and Wiring	Describe and install solid-state devices.
VC.VHVAC.2.E.01.17	E:Electrical Components and Wiring	Describe the structure of the Massachusetts Electrical Code (MEC).