

(067) Associate in Applied Science

The heating, ventilation and air conditioning program provides the skills needed to install, service and maintain commercial and residential heating, ventilation and air conditioning equipment. Upon completion of this program, students should be capable of installing a commercial or residential heating, ventilation and air conditioning system; performing routine maintenance on the unit; conducting standard tests on the unit to ensure operating efficiency; and following a logical procedure to troubleshoot a mechanical or electrical problem. The program is appropriate for pre-service entry-level students as well as current employees who desire to upgrade of their current knowledge and skills.

Work and Employment

Controlling the temperature of our environment and maintaining a comfort level is the task of a heating, ventilation and air conditioning (HVAC) technician. Heating and cooling systems control the temperature, humidity and often the cleanliness of the air in our homes, schools, stores, offices and factories. HVAC mechanics are skilled workers who install, maintain and repair those systems.

Special Considerations

Workers usually have the following skills and aptitudes: utilize analytical skills, work carefully and without much supervision, demonstrate good manual dexterity, have mechanical aptitude, display good judgment and initiative, are analytical, good problem solvers, responsible and patient.

Program Contacts at Sauk Valley Community College

Academic Advising, 815/835-6354;

Christopher Carlson, Assistant Professor of HVAC, 815/835-6221.

Major Field Requirements - Sem/Hrs: 45.5

- Electives (EET, ENE, ELT or HRS) 6 Semester hour(s)

- ELT 160 - Fundamentals of Electricity 3 Semester hour(s)
- ENE 150 - Energy Audit 3 Semester hour(s)
- HRS 100 - E.P.A. Certification .5 Semester hour(s)
- HRS 105 - Refrigeration Principles 3 Semester hour(s)
- HRS 114 - Sheet Metal Fabrication 3 Semester hour(s)
- HRS 120 - Basic Refrigeration 3 Semester hour(s)
- HRS 130 - Basic Heating 3 Semester hour(s)
- HRS 160 - Heat Pumps 3 Semester hour(s)
- HRS 170 - Hydronics 3 Semester hour(s)
- HRS 222 - Commercial Refrigeration 3 Semester hour(s)
- HRS 225 - Advanced Controls 3 Semester hour(s)
- HRS 260 - Installation 3 Semester hour(s)
- IND 116 - Industrial Print Reading 3 Semester hour(s)
- IND 250 (3) - Industrial Internship 3 Semester hour(s)

General Education Requirements - Sem/Hrs: 19

- Communications 6 Semester hour(s)
- Social/Behavioral Science 3 Semester hour(s)
- Humanities/Fine Arts 3 Semester hour(s)
- Mathematics (MAT 106 or higher required) 3 Semester hour(s)
- Physical/Life Science 4 Semester hour(s)

SVCC Requirement - Sem/Hrs: 1

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- FYE 101 - First Year Experience 1 Semester hour(s)

Total Hours Required for A.A.S. Degree: 65.5

Suggested Program

First Semester - Sem/Hrs: 16.5

- Mathematics (MAT 106 or higher) 3 Semester hour(s)
- ELT 160 - Fundamentals of Electricity 3 Semester hour(s)
- FYE 101 - First Year Experience 1 Semester hour(s)
- HRS 100 - E.P.A. Certification .5 Semester hour(s)
- HRS 105 - Refrigeration Principles 3 Semester hour(s)
- HRS 114 - Sheet Metal Fabrication 3 Semester hour(s)
- IND 116 - Industrial Print Reading 3 Semester hour(s)

Second Semester - Sem/Hrs: 15

- Communications 3 Semester hour(s)
- HRS 120 - Basic Refrigeration 3 Semester hour(s)
- HRS 130 - Basic Heating 3 Semester hour(s)
- HRS 160 - Heat Pumps 3 Semester hour(s)
- HRS 170 - Hydronics 3 Semester hour(s)

Third Semester - Sem/Hrs: 18

- Humanities/Fine Arts 3 Semester hour(s)
- Social/Behavioral Science 3 Semester hour(s)
- Electives (EET, ENE, ELT, HRS or IND) 3 Semester hour(s)
- ENE 150 - Energy Audit 3 Semester hour(s)
- HRS 225 - Advanced Controls 3 Semester hour(s)
- HRS 260 - Installation 3 Semester hour(s)

Fourth Semester - Sem/Hrs: 16

- Communications 3 Semester hour(s)-ENG 111-Business & Technical Communication
- Physical/Life Science 4 Semester hour(s)
- Electives (EET, ENE, ELT, HRS or IND) 3 Semester hour(s)
- HRS 222 - Commercial Refrigeration 3 Semester hour(s)
- IND 250 (3) - Industrial Internship 3 Semester hour(s)

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