Pipefitting Apprenticeship Service DIPLOMA

Program Overview
HVAC Technicians install, maintain, and repair high and low pressure steam systems, high and low pressure hot water systems, snow melting systems, refrigeration systems, heating, gas and oil piping, pneumatic, electronic controls, air conditioning and also provide instrumentation and valve repair. These skills are used working in residential, commercial, and industrial installations. These systems are installed in all types of weather conditions.

Applicants must be high school graduates or the equivalent and have completed an accredited two-year HVACR program or equivalent. HVACR Technicians must have a clean driving record and be able to pass job site specific drug testing. HVACR Technicians spend a lot of time outside in extreme weather and are often under stress to get a piece of mechanical equipment back on line. There may be times when an HVACR Technician is required to perform heavy lifting.

Career Opportunities
HVAC Technicians work in all aspects of the heating, air conditioning, refrigeration, and temperature control fields. We are employed at oil refineries, chemical plants, food processing facilities, manufacturing plants, retail and wholesale food stores, and ice rinks.

The University of Minnesota, Saint Paul School District, Metropolitan Council, Saint Paul Government Center, and Energy Park also employ maintenance HVACR Technicians to keep their systems on line.

We have pipefitters installing and maintaining refrigeration trucks, trailers, and buses at Thermo King Sales and Service.

Program Outcomes
1. Graduates will have the science and math skills needed in the piping systems.
2. Graduates will have the basic knowledge and skills necessary to install piping systems in commercial and industrial buildings.
3. Graduates will have basic knowledge to properly install and operate low- and high-pressure steam systems.

Transfer Opportunities
Saint Paul College has a transfer articulation agreement between the following program and post-secondary institution for the baccalaureate degree program listed below.

For more information please go to saintpaul.edu/Transfer.

Pipefitting Apprenticeship Service Diploma
BS Operations Management
Minnesota State University, Moorhead

Program Faculty
Bill Lombard  Training Coordinator
bill.lombard@local455jatc.com

Program Requirements
☐ Check off when completed

Course

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<tr>
<th>Cr.</th>
<th>PIPE 2614 Boiler Systems</th>
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<tr>
<td></td>
<td>PIPE 2615 Pipe Layout &amp; Installation</td>
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<td>PIPE 2623 Apprenticeship Refrigeration/Air Conditioning</td>
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<td>PIPE 2626 Basic Service Applications</td>
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<td>PIPE 2627 Basic Electricity</td>
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<td>PIPE 2628 Commercial Pneumatics</td>
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<td>PIPE 2632 Commercial Refrigeration</td>
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<td>PIPE 2636 Electrical Controls/Diagrams</td>
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<td>PIPE 2638 Computer Controls</td>
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<td>PIPE 2642 Piping Design</td>
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<td>PIPE 2643 Start/Test/Balance of Systems</td>
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<td>PIPE 2644 Power Burners &amp; Controls</td>
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<td>PIPE 2654 Hot Water Code</td>
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<td>PIPE 2656 High Pressure Steam Code</td>
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<td>PIPE 2657 Advanced Boiler Systems</td>
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<td>PIPE 2658 OSHA30/Pro10/UA Heritage</td>
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<td>PIPE 2659 Commercial Building Systems</td>
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Total Program Credits 40

Special Features
Students are employed by contractors who are signatory with UA Local Union 455 St. Paul Pipefitters.

Restricted Enrollment
The Pipefitting Apprenticeship Service Diploma is a restricted enrollment joint program offered through the St. Paul Pipefitters Local 455 and Saint Paul College. Admission to the Pipefitters Apprenticeship program is required for enrollment in this program. Call 651.455.5282 for application information.

Course Sequence
The following sequence is subject to Training Coordinator/Committee approval. This program begins fall semester.

Minimum Program Entry Requirements
Students entering this program must meet the following minimum program entry requirements:

Reading Comprehension: Score of 85+
Arithmetic: Score of 72 or better
Spatial: 70% or better

Students must maintain a GPA of 2.5 to continue in the program.

Students are accepted through St. Paul Pipefitters Local 455 JACT; 651.455.5282 or www.local455jatc.com.

Information is subject to change. This Program Requirements Guide is not a contract.
### Course Sequence

The following sequence is subject to Training Coordinator/Committee approval. This program begins fall semester.

#### 1st year-Fall
- PIPE 2658 OSHA 30/Pro10/UA Heritage/Standard for Excellence ................................. 2
- PIPE 2615 Pipe Layout & Inst .............................................. 2

#### 1st year-Spring
- PIPE 2627 Basic Electricity .............................................. 2
- PIPE 2623 Apprenticeship Refrigeration/AC .............................................. 2

#### 2nd year-Fall
- PIPE 2628 Commercial Pneumatics .............................................. 2
- PIPE 2636 Electrical Controls/Diagrams .............................................. 2

#### 2nd year-Spring
- PIPE 2659 Commercial Building Systems .............................................. 2
- PIPE 2626 Basic Service Applications .............................................. 2

#### 3rd year-Fall
- PIPE 2614 Boiler Systems .............................................. 2
- PIPE 2657 Boiler Systems Advanced .............................................. 2

#### 3rd year-Spring
- PIPE 2638 Computer Controls .............................................. 2
- PIPE 2632 Commercial Refrigeration .............................................. 2

#### 4th year-Fall
- PIPE 2642 Piping Design .............................................. 2
- PIPE 2644 Oil Burners/Controls .............................................. 2

#### 4th year-Spring
- PIPE 2643 Start/Test/Balance .............................................. 2
- PIPE 2645 DDC .............................................. 2

#### 5th year-Fall
- PIPE 2655 Ammonia Code .............................................. 2
- PIPE 2656 High Pressure Steam Code .............................................. 2

#### 5th year-Spring
- PIPE 2653 Gas Code .............................................. 1
- PIPE 2651 Refrigeration Code .............................................. 1
- PIPE 2652 Oil Code .............................................. 1
- PIPE 2654 Hot Water Code .............................................. 1

Any combination of the following courses also fulfills the program requirements with Training Coordinator or Committee approval:

- PIPE 2606 Pipefitting .............................................. 2
- PIPE 2615 Pipe Layout & Installation .............................................. 2
- PIPE 2616 Pipe Layout & Installation .............................................. 2
- PIPE 2625 Steam, Hot Water & Gas Controls .............................................. 2
- PIPE 2631 Industrial Pneumatics .............................................. 2
- PIPE 2641 Foreman Leadership .............................................. 1
- PIPE 2660 Industrial Rigging .............................................. 2
- RWLD 2621 Apprentice Pipe Weld .............................................. 2
- RWLD 2622 Apprentice Pipe Weld .............................................. 2
- RWLD 2623 Apprentice Pipe Weld .............................................. 2
- RWLD 2624 Apprentice Pipe Weld .............................................. 2
- RWLD 2660 Apprentice Pipe Weld Advanced .............................................. 2
- RWLD 2661 Apprentice Pipe Weld Advanced .............................................. 2
- RWLD 2662 Apprentice Pipe Weld Advanced .............................................. 2
- RWLD 2663 Apprentice Pipe Weld Advanced .............................................. 2