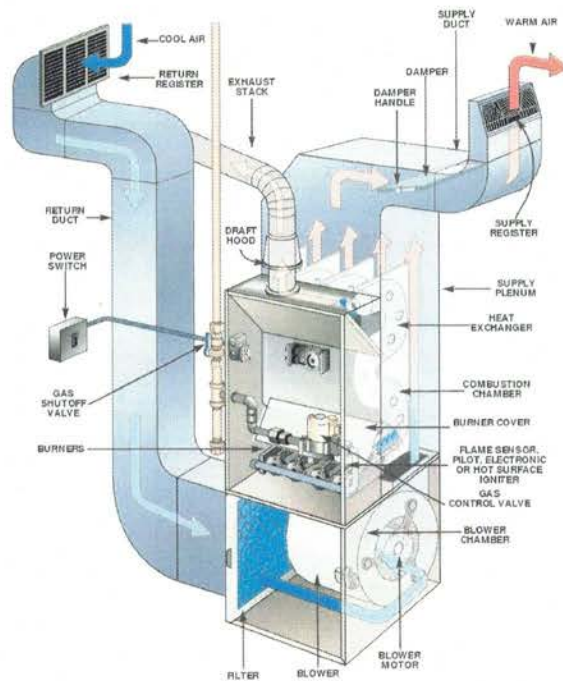




**Heating, Ventilation, Air Conditioning and Refrigeration
(HVACR)**

Apprenticeship Enrollment Information



Apprenticeship Training

Helping You on The Road to Success!

The Air Conditioning Contractors Western Pennsylvania (ACCWPA) Apprenticeship Program in the Heating, Ventilation, Air Conditioning and Refrigeration (HVACR) Industry

Offers to the Apprentices:

- The opportunity to receive a Pennsylvania Journeyman's Certificate, without having to sit for the exam, upon completion of this 4-year Apprentice program; the company you are working for must be a member of Air Conditioning Contractors of Western Pennsylvania (ACCWPA) to receive the certificate. Contact information call ACCWPA's Office.
- A career path;
- Pride in themselves;
- Accomplishment in their work;
- An "Earn-While-They-Learn" philosophy of education;
- Participation in a Pennsylvania recognized apprenticeship program.

Offers to the Contractors:

- For less than \$15 a day, which includes all books and training materials, an employer can train an employee;
- A structured four-year training program; developed by HVACR contractors;
- The immediate ability to measure increased productivity;
- Trained employees, which solves the problem of finding skilled workers;
- Enhanced problem-solving abilities of employees;
- Participation in a Pennsylvania recognized apprenticeship program.

THE APPRENTICESHIP PROGRAM

Agreement	call for a sample company agreement
Application for Apprenticeship	call for a student application
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THE APPRENTICE

Career Benefits . . .

In today's society, it is a necessity to have education and money to survive comfortably, but it is also important that we choose an occupation that is rewarding. This apprenticeship program, when completed, offers competitive lifetime earnings, an education, and a career, rather than just a job.

On-the-job training (OJT) and guaranteed wage increases are a couple of the many benefits of this apprenticeship program. This "earn-while-they-learn" philosophy is coupled with additional benefits offered through the contractor. Financially, this apprenticeship program may lead apprentices to earning a higher income.

It is clear that only the most educated and the most skilled people will be able to become successful. In the related-instruction portion of this apprenticeship program the apprentices learn from the best teachers in the heating, ventilation, air conditioning, and refrigeration (HVACR) industry. It is necessary to have an education along with manual skills to do a quality job. Apprentices learn about the latest technology in the HVACR industry that will assist them in becoming skilled workers and lead them to career advances.

It is very important that individuals pursue a career that will be self-satisfying. The HVACR industry offers apprentices year-round work and the opportunity for promotion as they become more knowledgeable. Once they finish the four years successfully, they will receive a completion certificate that is recognized throughout the HVACR industry, along with being recognized as a Pennsylvania journeyman when they complete their 8000 hours of on-the-job training (OJT) without having to sit for the required licensing exam. Skilled workers are in demand. The HVACR industry offers competitive income, an education, a career, but most importantly, a skill that they can take pride in.

THE EMPLOYER

Training Benefits . . .

By being a participating contractor in the Air Conditioning Contractors of Western Pennsylvania (ACCWPA) Apprenticeship Program, contractors are assuring themselves a supply of skilled workers. Statistics indicate that the nation is facing a shortage of skilled workers.

Apprenticeship training gives businesses the opportunity to train their own skilled workers. Training is an investment with timetables and goals that need to be a part of the contractor's business plan. Such a plan will allow employees to be high-performance workers.

Training is the best investment against the hidden cost of low productivity, dissatisfied consumers, and lost business. The ACCWPA Apprenticeship Program can provide to the contractor structured and effective training. For less than \$15 a day, which includes all books and training materials, an employer can train an employee. Can HVACR businesses afford not to train?

CURRICULUM

This stimulating and exciting four-year program was developed by ACCWPA's Apprenticeship Committee after carefully assessing the needs of the HVACR industry. The finest materials and latest textbooks are available for the apprentices and instructors to use.

HVACR APPRENTICESHIP CURRICULUM

930 Total Hours of Related Instruction

Year 1 - 220 hours

Intro. to Trade, Tools & Safety
Communications Skills
Basic Htg. Cycle
Basic Math/Shop Math
Refrigeration Cycles & Basic Refrigeration
Basic Elect. 1 & 2
OSHA 10 Certificate
EPA (608) Training and Certification Test
A2L Refrigerant training and Certification Test
Review

Year 2 - 220 hours

Fundamentals of Brazing & Soldering
AC/DC Circuits, Electric Motors & Starters
HVAC Controls - Start Up & Testing
Advanced Refrigeration & Pipe Fitting
Communication Skills
Review

Year 3 - 240 hours

Trouble Shooting - Gas, Oil & Elect. Htg/Cool
Blueprint Reading
Air Distribution Systems - Balancing & Measuring
Heat Pumps & Heat Pump Trouble Shooting
Refrigeration Install. & Svc. Commercial
Chilled Water Systems - Cooling Towers & Pumps
NATE Core Test – Review
Review

Year 4 - 250 hours

Boilers & Hydronics
Wiring Diagrams
Heat Loss/Gain Calculations
Introduction to NEC/HVACR
Introduction to Electronics/HVACR
Introduction to BOCA Mech. Code/HVACR
NATE Core Test – Review
Review

ON-THE-JOB TRAINING

The on-the-job training (OJT) the apprentices receive is vitally important. Only experienced journeypersons and technicians, provided by the employer, can furnish the hands-on training necessary to educate apprentices in the skills of the trade. Only through hands-on training will apprentices become skilled in the HVACR trade.

RECORD KEEPING

Every hour spent training and working, in each of the nine work process areas, is recorded. The **OJT**, ideally, parallels the related instruction. Throughout the year, the association keeps monthly records of all student OJT's so when they reach 8000 hours their employer can file for the PA Journeypersons certificate for each employee that reaches the 8000 hours as long as the Company is registered with the PA Dept. of Labor & Industry Workforce Development. Incremental increases in pay are to be based upon these reports.

OUTLINE OF WORK PROCESS

Work Process:	Approximate Hours
A. Use and Care of Tools and Equipment	400
B. A/C and Refrigeration Systems	3000
C. Air Ducting, Movement, and Treatment	900
D. Refrigeration Controls	900
E. Motors, Controls, and Wiring	900
F. Heating and Fuel Burning Equipment	800
G. Heat Pumps	800
H. Piping, Installation and Service	250
I. Safety	50
TOTAL HOURS FOR FOUR YEARS	8000

THE EMPLOYER'S RESPONSIBILITIES

All participating employers should familiarize themselves with the Standards of Apprenticeship that are registered with the State of Pennsylvania. In addition to those standards, they are required to:

- Encourage the apprentice to attend all classes. vacation, illness and job-related absences are acceptable, but an email of explanation must be sent to the association office from the employer on company letterhead (see Apprentice's Responsibilities);
- Submit all required paperwork to the association office;
- Provide the number of journeypersons and apprentices employed and the average journeyperson's wage rate;
- Employ and train apprentices according to the rules, regulations, and decisions of the Committee;
- Assist the Committee in monitoring the apprenticeship classes;
- Provide OJT in a planned and organized manner using the work process as outlined;
- Assist the apprentice in submitting monthly OJT reports to the association office;
- Adhere to the Standard's progressive wage scale;
- Submit to the Committee, in writing, complaints, disputes, or disagreements involving any phase of the apprenticeship program. Grievance forms are available from the association office;
- Recruit, select, employ, and train all apprentices without discrimination based on race, color, religion, national origin, or sex;
- Submit documentation to the Committee if an apprentice is not making satisfactory OJT progress. The Committee will advise the contractor of the appropriate action;
- Immediately advise the Committee if an apprentice leaves their employment.

THE APPRENTICE'S RESPONSIBILITIES

Apprentices should familiarize themselves with the Standards of Apprenticeship, available from their employer or from the association office. Plus, they are required to:

- Apply themselves industriously in learning the HVACR trade as directed by the Committee and their employer.
- **Keep daily, accurate records of their OJT hours.**

- **Mail or Email monthly OJT reports to the association office by the 10th of the following month. Apprentices are eligible for incremental pay increases when their OJT reports are complete.**
- **OJT's are to be current before their mid-term or final grades are released to the employer.**
- Report, in writing, to the Committee any job layoffs, insufficient training in the major work experiences, related instruction problems, wage disputes, or any other complaints associated with the apprenticeship program and their employment. The Committee has a formal complaint procedure available to help resolve the disagreement.
- Consider this to be a four-year commitment to the apprenticeship program and to their employer. Apprentices cannot change employers without the permission of the Committee; doing so will cause a legal investigation and jeopardize their apprenticeship standing.

GRADES

70% (C) or above **MUST** be maintained to pass each 20/40 hour class.

ATTENDANCE POLICY

An apprentice must physically attend at least 85% of the course hours to receive credit for The years related instruction. This is in addition to earning a minimum of 70% (C) in each 20/40 hour class.

After the maximum unexcused absences have been reached for a class, the next unexcused absence that follows will result in a full drop in the apprentice's final letter grade. Another grade drop will occur after every third unexcused absence that follows.

The following table shows the number of total in-class hours required.

Course Hours	In-Class Hours	Max. Unexcused Absences
20 hour class	17 hours in-class	3 hours (1 class)
40 hour class	34 hours in-class	6 hours (2 classes)

Any absence must be made up to get credit for the hours.

Excused Absences:

Excused absences **MUST** be documented by an email from the employer on company letterhead, thus ensuring that the employer knows of the absence. Acceptable excuses include: vacation, personal illness or injury, or the death of immediate family members. In the occasional work-related emergency an absence may be excused. The written excuse, which must include the employer's signature, should be faxed to ACCWPA (724-687-7860) within **two days** of the absence.

Make-Up Procedure:

In all cases the request to make up missed hours and/or class work must be presented to the instructor within two weeks of the absence. Absences that are not made up will not get hours credited.

LABs & Field Trips cannot be made up. They count for 20 points equivalent to a quiz. This will affect his/her grades.

FIRST YEAR APPRENTICES

Unemployed Apprentices

The following will apply to unemployed first year apprentices:

- They do not need to be employed in the HVACR industry to begin in the apprenticeship program.
- They must actively seek employment by an ACCWPA member that is participating in the apprenticeship program. If working for an HVACR Business, but not a participating contractor member, the apprentice will only audit the program and not be a registered apprentice through the program with the State of Pennsylvania. Auditing apprentices will not receive a Pennsylvania Journeyman's certificate without having to sit for the exam.
- The association office will assist them in searching for employment by referring them to ACCWPA participating members in the apprenticeship program, along with publishing their name in the association's monthly newsletter.

All First Year Apprentices

- MUST attend a first-year orientation which is done on the first night of class
- If not employed by the end of their first year by an ACCWPA* member or an HVACR contractor or other employment related to the HVACR industry which must be approved by the ACCWPA Chapter to enter into the second year of the apprenticeship program.
- They must follow the same rules, regulations, and attendance policies as other apprentices.

Working for a Non-ACCWPA Contractor Member

- Apprentices may be employed outside the HVACR industry during the duration of their first year, but must find employment with an ACCWPA* participating contractor member or other employment related to the HVACR industry which must be approved by the ACCWPA Chapter to enter into the second year of the apprenticeship program.
- They must follow the same rules, regulations, and attendance policies as other apprentices.
- Their on-the-job training reports will not be accepted until they are employed by an ACCWPA* participating contractor member or an HVACR contractor or other employment related to the HVACR industry which must be approved by the ACCWPA Chapter to enter into the second year of the apprenticeship program.

*For information regarding membership in ACCWPA, call the association office at 724-687-7860.

NOTICE TO EMPLOYERS AND APPRENTICES

Financial arrangements for the payment of tuition for the apprenticeship program are strictly between the employer and the apprentice. The employer and the apprentice acknowledge that the sponsor of the apprenticeship program - Air Conditioning Contractors Western Pennsylvania (ACCWPA) - assumes no liability whatsoever with respect to those financial arrangements. By participating in the apprenticeship program, the participants agree that all matters concerning financial responsibility are between the employer and the apprentice.

A signed agreement between the employer and the apprentice is encouraged (call for a sample).



**ACCWPA
TRAINS THE
HVACR
INDUSTRY**



Air Conditioning Contractors Western Pennsylvania

126 Resolution Drive
Mars, PA 15046-3719

**HVACR
Apprenticeship
Enrollment
Information**

ACCWPA Members are the "Indoor Environmental & Energy Professionals"

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