

The Air Conditioning Contractors of America Western Pennsylvania Chapter's Apprenticeship Program in the Heating, Ventilation, Air Conditioning and Refrigeration (HVACR) Industry

Offers to the Apprentices:

- The opportunity to receive a Pennsylvania Journeyman's License, without having to sit for the exam, upon completion of the program;
- A career path;
- Pride in themselves;
- Accomplishment in their work;
- An "Earn-While-They-Learn" philosophy of education;
- Participation in a nationally recognized apprenticeship program.

Offers to the Contractors:

- For less than \$5 a day, which includes all books and training materials, an employer can train an employee;
- A structured four-year training program;
- 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 nationally recognized apprenticeship program.

THE APPRENTICESHIP PROGRAM

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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 without having to sit for the required licensing exam. Skilled workers are in demand. The HVACR industry offers a competitive income, an education, a career, but most importantly, a skill that they can take pride in.

Upon completion of the related and on-the-job training the apprentice will be able to apply for their Pennsylvania Journeyman's License without an exam.

THE EMPLOYER

Training Benefits . . .

By being a participating contractor in the Air Conditioning Contractors of America - Western Pennsylvania Chapter's (ACCA-WPA) 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 ACCA-WPA Apprenticeship Program can provide to the contractor structured and effective training. For less than \$5 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 ACCA-WPA'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 640 Total Hours of Related Instruction

Year 1 - 160 Hours	Hours
Basic Elect. I	20
Basic Elect. II	20
Basic Htg. Cycle	20
Basic Math / Shop Math	40
Intro. to Trade, Tools & Safety	20
Refrigeration Cycles & Basic Refrigeration	40
Year 2 - 160 Hours	
AC/DC Circuits, Electric Motors & Starters	20
Advanced Refrigeration & Pipe Fitting	40
Communication Skills	20
Fundamentals of Brazing & Soldering	20
HVAC Controls - Start Up & Testing	40
Wiring & Testing	20
Year 3 - 160 Hours	
Air Distribution Systems - Balancing and Measuring	20
Blue Print Reading	20
Chilled Water Systems - Cooling Towers & Pumps	20
Heat Pumps & Heat Pump Trouble Shooting	40
Refrigeration Install. & Svc. Commercial	20
Trouble Shooting - Gas, Oil & Elect. Htg/Cool.	40
Year 4 - 160 Hours	
Boilers and Hydronics	40
Heat Loss/Gain Calculations	20
Introduction to NEC/HVACR	20
Introduction to Electronics/HVACR	20
Introduction to International Mech. Code	20
Wiring Diagrams	40

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 will inform the employer of the hours accrued from OJT reports submitted by the apprentice. 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 (available through the association office). 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 a letter 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 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.
- 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.
- Must maintain a Pennsylvania State Apprenticeship License throughout their enrollment in the apprenticeship program.

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 a letter 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 ACCA-WPA (724-779-1860) 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.

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 ACCA-WPA member that is participating in the apprenticeship program. If working for an ACCA-WPA member, 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 license without having to sit for the exam.
- The association office will assist them in searching for employment by referring them to ACCA-WPA 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. During this process a math assessment test will be given to determine the prospective apprentice's math level.
- MUST obtain a Pennsylvania issued apprenticeship license by the completion of the first semester to continue in the program.
- If not employed by the end of their first year by an ACCA-WPA member, they cannot continue in the apprenticeship program.
- They must follow the same rules, regulations, and attendance policies as other apprentices.

Working for a Non-ACCA-WPA Contractor Member

- Apprentices may be employed outside the HVACR industry during the duration of their first year, but must find employment with an ACCA-WPA participating contractor member to enter into the second year of the apprenticeship program.
- They may be employed by a HVACR contractor that is an ACCA-WPA non-member during their first year. However, for the apprentice to continue into the second year, the contractor must become a member of ACCA-WPA*
- 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 ACCA-WPA participating contractor member.

*For information regarding membership in ACCA-WPA, call the association office at 724-779-1860.

REGISTRATION AND YEARLY TUITION

Enrollment deadline is August 31, 2009.

TUITION: *(includes tuition, books and materials for year)*

Apprentices working for an ACCA-WPA participating contractor member:

_____ **\$100 Registration fee applies to all first-time applicants and former apprentices returning to the program. (Nonrefundable)**

_____ **\$1700.00* plus \$100 registration fee.**

*Tuition subject to change based on final cost of books.

Apprentices working for a Non-ACCA-WPA contractor member or is unemployed

(Can only participate in program for one year if apprentice does not become employed by an ACCA-WPA participating contractor member):

_____ **\$100 Registration fee applies to all first-time applicants and former apprentices returning to the program. (Nonrefundable)**

_____ **\$2100.00* plus \$100 registration fee.**

*Tuition subject to change based on final cost of books.

Some books are used throughout the four-year program. Apprentices that move into second-year via a Test Out exam will be responsible to purchase books that are issued in the first year and are required all four years.

Replacement books will be at the apprentice's own expense.
90 day financing available - call ACCA-WPA for information.

Tuition Refund

Before orientation minus \$100
Before third night of scheduled classes (no refund on books)50%

*There will be a charge for books not returned or books that are not in new condition.

An apprenticeship application is included in this handbook. Duplicate as needed.

CLASS SCHEDULE

- First and third year classes will be held on Monday and Wednesday evenings from 5:30 p.m. until 8:45 p.m. (class dates and times subject to change but will be finalized by 8-1-2009)
- Second and fourth year classes will be held on Tuesday and Thursday evenings from 5:30 p.m. until 8:45 p.m. (class dates and time subject to change but will be finalized by 8-1-2009)

CLASS LOCATION

Classes will be held at Dean Tech in Pittsburgh, PA.

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 of America, Western Pennsylvania Chapter - 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 (sample enclosed).



**ACCA-WPA
TRAINS
THE
HVACR
INDUSTRY**

The Enrollment Deadline Is August 31, 2009

To avoid an increase in tuition
applications must be received by
August 1, 2009



**2009/2010
Apprenticeship
Enrollment
Information**