



Apprenticeship Training Program



**2009 - 2010 Apprenticeship
Enrollment Information**

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

Offers to the Apprentices:

- ◆ The opportunity to receive a Maryland 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;
- ◆ Credits toward an Associates degree from Montgomery College upon graduation;
- ◆ Participation in a nationally recognized apprenticeship program.

Offers to the Contractors:

- ◆ For less than \$6 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

Agreement.....	insert
Application for Apprenticeship.....	insert
Apprentice’s Responsibilities.....	page 6
Attendance Policy.....	page 6
Benefits.....	page 2
Class Schedule and Location.....	page 8
Curriculum.....	page 3
Employer’s Responsibilities.....	page 5
First-Year Apprentices.....	page 7
Notice to Employers and Apprentices.....	page 8
On-The-Job Training.....	page 4
Registration and Tuition.....	page 8



THE APPRENTICE

Career Benefits . . .

In today's society, it is a necessity to have an 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 Maryland 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 Maryland Journeyman's License without an exam.

THE EMPLOYER

Training Benefits . . .

By being a participating contractor in the Air Conditioning Contractors of America - National Capital Chapter's (ACCA-NCC) 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-NCC Apprenticeship Program can provide to the contractor structured and effective training. For less than \$6 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-NCC'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

Apprentices receive the following as part of their tuition:

- ◆ Year 2 receives the ICE (Industry Competency Exam) Test
- ◆ Year 3 receives the NATE (North American Technician Excellence) Core Test
- ◆ Year 4 receives the NATE (North American Technician Excellence) Heat Pump Test
- ◆ Years 2-4 receives CFC (chlorofluorocarbon; refrigerant recycling) refresher class and test

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 Maryland (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 Maryland State Apprenticeship License throughout their enrollment in the apprenticeship program.
- ◆ **SMOKING POLICY:** There is no smoking on campus grounds. That includes all buildings, parking lots, and common outdoor areas. You must leave campus property completely to smoke.

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 year's 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.

<u>Course Hours</u>	<u>In-Class Hours</u>	<u>Max. Unexcused Absences</u>
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-NCC (301-384-9623) 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-NCC member that is participating in the apprenticeship program. If working for an ACCA-NCC 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 Maryland. Auditing apprentices will not receive a Maryland 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-NCC 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 Maryland 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-NCC 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-NCC Contractor Member

- ◆ Apprentices may be employed outside the HVACR industry during the duration of their first year, but must find employment with an ACCA-NCC 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-NCC non-member during their first year. However, for the apprentice to continue into the second year, the contractor must become a member of ACCA-NCC.*
- ◆ 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-NCC participating contractor member.

*For information regarding membership in ACCA-NCC, call the association office at 301-384-ACCA.

REGISTRATION AND YEARLY TUITION

NO registrations accepted after August 1, 2009.

TUITION:

(includes tuition, books and materials for year)

Apprentices working for an ACCA-NCC participating contractor member:

- _____ **\$50 Registration fee applies to all first-time applicants and former apprentices returning to the program. (Nonrefundable)**
- _____ \$1,130 postmarked before July 1, 2009
- _____ \$1,200 postmarked before July 25, 2009
- _____ \$1,275 postmarked before August 1, 2009

Apprentices working for a non-ACCA-NCC contractor member or unemployed

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

- _____ **\$50 Registration fee applies to all first-time applicants and former apprentices returning to the program. (Nonrefundable)**
- _____ \$1,765 postmarked before July 1, 2009
- _____ \$1,840 postmarked before July 25, 2009
- _____ \$1,900 postmarked before August 1, 2009

Some books are used throughout the four-year program. Apprentices that move into second-year via a credit-by-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-NCC for information.

Tuition Refund

Before orientation	minus \$75
Before first night of scheduled classes (with books returned in new condition*)	85%
Before second night of scheduled classes (with books returned in new condition*)	75%
Before third night of scheduled classes (no refund on books)	50%
Before fourth night of scheduled classes (no refund on books)	25%

*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.
- ◆ Second and fourth year classes will be held on Tuesday and Thursday evenings from 5:30 p.m. until 8:45 p.m.

CLASS LOCATION

Classes will be held at Montgomery College in Rockville, MD.

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, National Capital 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-NCC
TRAINS
THE
HVACR
INDUSTRY**

The Enrollment Deadline is August 1, 2009

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



P.O. Box 4268
Silver Spring, MD 20914-4268

FIRST CLASS
U.S. Postage
PAID
Permit No. 2
Colebrook, NH 03576

FIRST CLASS

**2009/10
Apprenticeship
Enrollment
Information**

Proposed Agreement Between Employer and Apprentice

NOTE: It is recommended that the Employer's legal counsel review this agreement and revise to meet the company's own needs.)

DO NOT MAIL TO ACCA-NCC (to be kept in the apprentice's employee file at employer's office)

_____ (The "Employer") and
_____ (The "Apprentice"), this ____ day of _____, _____, acknowledge and agree as follows:

- ◆ Financial arrangements for the payment of tuition for the apprenticeship program are strictly between Employer and Apprentice.
- ◆ Employer and Apprentice acknowledge that the sponsor of the apprenticeship program, Air Conditioning Contractors of America - National Capital Chapter - assumes no liability whatsoever with respect to these financial arrangements.
- ◆ Apprentice agrees to indemnify Employer for any damages resulting from Apprentice's resignation from employment due to a violation of the non-solicitation agreement by another apprentice, an instructor, or another employer (in connection with an apprenticeship program function).
- ◆ Should an Apprentice change employment during the program, an investigation will be held. During that investigation period, on-the-job (OJT) forms will not be accepted from the Apprentice for a maximum of 90 days from his/her new employer.

Employer and Apprentice agree that (choose one):

- _____ Apprentice shall be fully responsible for the payment of tuition for the apprenticeship program.
- _____ Employer shall advance tuition costs to the Apprentice. If the program is successfully completed, and Apprentice works for Employer for a _____ time period after the program, Employer will not require repayment of the current term's tuition. If for any reason the program is not successfully completed, Apprentice will repay Employer for the cost of the tuition.
- _____ Employer shall pay tuition.
- _____ Other _____

IN WITNESSES WHEREOF, Employer and Apprentice have caused this Agreement to be signed on the date first written above. NOTE: This is a legal and binding document.

Witness

Employer

Witness

(Apprentice) Employee

DO NOT MAIL TO ACCA-NCC (to be kept in the apprentice's employee file at employer's office)



2009 - 2010 Application For **FIRST YEAR** Apprenticeship Training

PLEASE PRINT

NAME: Last, First, Middle		Home Phone	Social Security #
Street Address	Apt. #	Date of Birth (M-D-Y)	Male Female
City, State, Zip Code		E-mail (required)	
Race/Ethnic Group (x one) <input type="checkbox"/> White (not Hispanic) <input type="checkbox"/> Am. Indian/Alaskan <input type="checkbox"/> Black (not Hispanic) <input type="checkbox"/> Asian/Pacific Is. <input type="checkbox"/> Hispanic <input type="checkbox"/> Other		I'll be attending: <input type="checkbox"/> First Year <input type="checkbox"/> Second Year (You must take a credit-by-exam to qualify scheduled for July 19, 2008)	Have you ever worked in the HVACR industry? <input type="checkbox"/> Yes <input type="checkbox"/> No Job Description:
If under 18, name and address of parent or guardian:			
Apprentice's Employer		Address	Phone

EDUCATION / VETERAN STATUS

Education Level (X One) _____ 9th grade or more _____ Some College _____ GED Certificate _____ College Graduate _____ High School Graduate	Veteran Status (X One) _____ Vietnam Era (8/15/64 - 6/7/75) _____ Other Veteran _____ Non Veteran
--	---

I certify that to the best of my knowledge the above information is correct. I also understand my responsibilities as stated on page 6 of the apprenticeship brochure.

Date: _____ Signature of Applicant: _____

REQUIREMENTS

MUST BE SUBMITTED WITH APPLICATION. (Incomplete forms will be returned.)

- Applicant must provide a copy of high school diploma, if graduated, GED certificate, or transcript of last grade completed. You must have a 9th grade education or better.
- Applicant, if claiming credit for training in trade, must provide proof of training.

ADDITIONAL REQUIREMENTS

- Applicant **must** be physically able to do work in the HVACR industry and must submit a doctor's certificate if requested.
- Applicant, if a veteran, **may** need to provide discharge papers.
- Applicant **may** be asked to provide written references from three (3) acquaintances.
- Applicant **must** provide tools of trade as required by employer.
- All first year apprentices **must** take a math assessment test, for placement purposes, during orientation in August.
- Must** obtain a Maryland Apprenticeship License by the completion of the first semester.

Please complete reverse side

TUITION PAYMENT (full payment must be included with completed application):

(includes tuition, books and materials for year)

Apprentices working for an ACCA-NCC participating contractor member:

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- _____ \$1,275 postmarked before August 1, 2009

Apprentices working for a non-ACCA-NCC contractor member or unemployed

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

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- _____ \$1,765 postmarked before July 1, 2009
- _____ \$1,840 postmarked before July 25, 2009
- _____ \$1,900 postmarked before August 1, 2009

Some books are used throughout the four-year program. Apprentices that move into second-year via a credit-by-exam will be responsible to purchase books that are required all four years. Replacement books will be at the apprentice's own expense.

FULL PAYMENT MUST BE INCLUDED WITH COMPLETED APPLICATION

(Visa, MasterCard, and Amex accepted - make check payable to ACCA-NCC)

My tuition of \$_____, **PLUS** my registration fee of \$50, equaling my full payment of \$_____

is being paid by: Check Visa MasterCard Amex

Name on Card _____ Credit Card # _____ Exp. Date _____

Tuition Refund

Before orientation	minus \$75
Before first night of scheduled classes (with books returned in new condition*)	85%
Before second night of scheduled classes (with books returned in new condition*)	75%
Before third night of scheduled classes (no refund on books)	50%
Before fourth night of scheduled classes (no refund on books)	25%

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

MUST BE COMPLETED BY EMPLOYER:

Enroll my employee, _____ as a registered apprentice.

I agree to continue as, or become, a registered participating employer.

Signature of Contractor: _____

Print Name: _____

E-mail: _____

Company: _____

NO APPLICATIONS ACCEPTED AFTER AUGUST 1, 2009

Mail to: ACCA-NCC
P. O. Box 4268
Silver Spring, MD 20914-4268
301-384-ACCA/Fax 301-384-9623