

HACC of Maryland

Apprenticeship Program

INTRODUCTION

Students enrolling in the Heating and Air Conditioning Contractors of Maryland (HACC), Apprenticeship Program have two options. You may choose to enroll as a registered apprentice or you may audit a class.

Students who enroll as registered apprentices are making a commitment to attend all four years of the program. They learn the hvacr trade through on-the-job and classroom training. They must be employed by an hvacr contractor by the start of the second year of the program in order to stay as a registered apprentice. Registered apprentices are also required to keep track of their on-the-job training hours and to submit these hours to the Chapter office each month.

Registered apprentices who successfully complete the four year program will be given a certificate of completion from the State of Maryland and can obtain their Maryland State journeyman's license without taking the exam.

Students who choose to audit the program will be participating in the classroom training only. They are not required to be employed by an hvacr contractor and do not track on-the-job training hours. They also have the option of enrolling in any year of the program they are interested in. Auditing students do have to meet the attendance requirements and have a minimum grade average of 70% in order to receive a certificate of completion from HACC at the end of the school year.

If this is your first year in the program, we would like to welcome you. If you are a returning student, welcome back. We hope you all have a very successful school year.

If you have questions about any part of the Apprenticeship program, feel free to call the Chapter office at (410) 431-8889.

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) is one 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 can lead apprentices to earning a higher income.

In 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 being 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. Skilled workers are in demand. The HVACR industry offers a competitive income, an education, a career, but more importantly, a skill that you can take pride in.

THE EMPLOYER

Training Benefits...

By being a participating contractor in the Heating and Air Conditioning Contractors of Maryland 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 HACC, of Maryland's Apprenticeship Program can provide to the contractor structured and effective training. Can the HVACR business afford not to train?

CURRICULUM

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

HVACR APPRENTICESHIP CURRICULUM 640 Total Hours of Related Instruction

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

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 Chapter office). In addition to those standards, employers are required to:

- Encourage the apprentice to attend all classes. Vacation, illness and emergency job-related absences are acceptable, but a letter of explanation must be sent to the instructor from the employer on company letterhead. These must be limited to 4 times a year. Once a student misses their 5th class we have no choice but to fail them.

An apprentice must physically attend at least 95% of the course hours to receive credit for the year's related instruction. This is in addition to earning a minimum of 70% final grade average. (For more information See Apprentices' Responsibilities.)

- Submit all required paperwork to the HACC of MD's office.
- Provide the number of journey persons and apprentices employed and the average journey person's wage rate. Keep the necessary supplemental form current and on file with the Chapter office.
- Employ and train apprentices according to the rules, regulations, and decisions of the Apprenticeship Committee.
- Provide on-the-job-training (OJT) in a planned and organized manner using the work process as outlined.
- Assist the apprentice in submitting monthly OJT reports to the Chapter office.
- Adhere to the Standard's progressive wage scale.
- Submit to the Apprenticeship Committee, in writing, complaints, disputes, or disagreements involving any phase of the apprenticeship program.
- Employ and train all apprentices without discrimination based on race, color, religion, national origin, or sex.

THE APPRENTICE'S RESPONSIBILITIES

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

- Take care of your software license.
- Apply themselves industriously in learning the HVACR trade as directed by the Apprenticeship Committee and their employer.
- Keep daily, accurate records of their on-the-job (OJT) hours. Mail monthly OJT reports to the Chapter office by the 10th of the following month. Failure to do this could prevent apprentice students the ability to complete the program.
- If HACC is required to attend a hearing with the HVAC Board, apprentice students are required to attend this hearing.
- **Report to the Chapter Office, within five days, any change in employment. Changing employers to a non-sponsoring employer may result in the not getting credit for your on-the-job training hours.** Also report, in writing, to the Committee if there is 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 your employer. Apprentices cannot change employers without the permission of the Apprenticeship Committee; doing so will jeopardize their apprenticeship standing.

GRIEVANCE PROCEDURE

The Apprenticeship Committee encourages individuals to resolve complaints through direct and open communication. If the individuals involved cannot come to a satisfactory agreement, the Committee will address the dispute.

Complaints must be submitted to the Committee in writing, via the Chapter office. The Committee will acknowledge in writing, within seven days, the receipt of the written complaint. Within 45 days the Committee will respond with requests for more information or clarification, to request your appearance before the Committee, or will have suggestions for resolution of the dispute.

If the grievance cannot be resolved at the local level, the Maryland Apprenticeship and Training Council has a formal procedure to assist participants in resolving grievances.

STUDENT DRESS CODE

1. Students must wear closed-toe shoes or boots.
2. No loose clothing will be worn. This includes pants with baggy legs.
 - Shirt tails will be tucked in.
 - Sleeves will be buttoned.
 - No rings, watches, bracelets when working in training labs.
 - No dangling jewelry, including necklaces and bracelets.
3. *ALL SAFETY EQUIPMENT MUST BE WORN* when required.
(Safety equipment includes: hard hats, safety glasses, goggles, face shields, ear plugs, dust masks, filtered respirators and gloves.)

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, the Heating and Air Conditioning Contractors of Maryland, 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.

Note: Students should not discuss, nor are the instructors allowed to discuss, wages, hours and/or working conditions for the purpose of influencing other students.

FIRST YEAR REGISTERED APPRENTICES

Unemployed - 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 with an HVACR contractor. The Chapter office will assist them in searching for employment by referring them to HACC contractors and by publishing their name on the Chapter's web site.
- If not employed by the start of the second year, they cannot continue in the apprenticeship program as a registered apprentice.
- They must follow the same rules, regulations, and attendance policies as other apprentices.

Employed by an Non-registered employer:

- They may be employed outside the HVACR industry during the duration of their first year but must find employment with a participating contractor to enter into the second year of the apprenticeship program.
- They must follow the same rules, regulations, and attendance policies as other apprentices.

APPRENTICES WHO ARE AUDITING

- Students auditing the program do not keep track of on-the-job training hours but they must follow the same rules, regulations, and attendance policies as other apprentices.

ATTENDANCE POLICY

An apprentice must physically attend at least 95% of the course hours to receive credit for the year's related instruction (**up to 4 absences**). This is in addition to earning a minimum of 70% final grade average. If you miss more than **4 excused** absences, you will not pass the course.

An excuse only qualifies the apprentice to participate in the make-up process. Any excused absence must be made up to get credit for the hours. Unexcused absences may not be made up.

Excused/Unexcused:

Excused absences may be granted when documented by a letter from the employer on company letterhead, thus ensuring that the employer knows of the absence. Acceptable excused include: 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 should be submitted to the instructor.

No credit will be granted if an apprentice acquires more than two (2) unexcused absences per semester.

Tardiness:

The Apprenticeship Committee realizes that arriving late is better than missing the entire class and urges students who may be delayed in route to show good intent by coming in late. However, frequent and excessive late arrivals will not be tolerated. If a student arrives more than ten minutes late, he must report to the instructor. If a student arrives late two times, he will be charged with an 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. Excused absences that are not made up will not get hours credited. Make-up classes will cost students \$75 per class to be scheduled at the discretion of the instructor. It is the student's responsibility to pay for make-up classes.

ON-THE-JOB TRAINING FOR REGISTERED APPRENTICES

The on-the-job training (OJT) the apprentices receive is vitally important. Only experienced journey persons 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 Chapter 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:	APPROXIMATE HOURS
A. Use and Care of Tools and Equipment Training -----	400
B. A/C and Refrigeration Systems -----	3,000
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 Training -----	50
 TOTAL HOURS FOR FOUR YEARS -----	 8,000

DIRECTORY

Apprenticeship Program
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School Calendar

HACC strives to incorporate a large amount of class work and hands-on training into each course curriculum. For our programs to be comprehensive and successful it is important to maintain a steady school calendar. Although classes may be held at various times throughout the year, most classes are taught from September to May.

2019-2020 CLASS SCHEDULE HARFORD COMMUNITY COLLEGE

First Year and Second Year Students

Class hours are 6:00 p.m. to 9:00 p.m.
on Tuesdays and Thursdays

2019

September 17	First class
November 26	Last class before Thanksgiving break
December 3	Classes resume
December 19	Last class before holiday break

2020

January 2	Classes resume
March 12	Last class before Spring break
March 24	Classes resume
April 21**	Last scheduled class

Third- and Fourth-Year Students

Class hours are 6:00 p.m. to 9:00 p.m.
on Mondays and Wednesdays

2019

September 16	First class
November 25	Last class before Thanksgiving break
December 2	Classes resume
December 18	Last class before holiday break

2020

January 6	Classes resume
January 20	No class (Martin Luther King's birthday)
March 11	Last class before Spring break
March 23	Classes resume
April 27**	Last scheduled class

CARROLL COMMUNITY COLLEGE

First Year and Second Year Students

Class hours are 6:00 p.m. to 9:00 p.m.
on Tuesdays and Thursdays

2019

September 17	First class
November 26	Last class before Thanksgiving break
December 3	Classes resume
December 19	Last class before holiday break

2020

January 7	Classes resume
March 19	Last class before Spring break
March 31	Classes resume
April 23**	Last scheduled class

Third- and Fourth-Year Students

Class hours are 6:00 p.m. to 9:00 p.m.
on Mondays and Wednesdays

2019

September 16	First class
November 25	Last class before Thanksgiving break
December 2	Classes resume
December 18	Last class before holiday break

2020

January 6	Classes resume
January 20	No class (Martin Luther King's birthday)
March 18	Last class before Spring break
March 30	Classes resume
April 27**	Last scheduled class

** If classes are cancelled for inclement weather or other reasons, the last day of class may be changed.

Howard COMMUNITY COLLEGE

First Year and Second Year Students

Class hours are 6:00 p.m. to 9:00 p.m.
on Tuesdays and Thursdays

2019

September 17	First class
November 26	Last class before Thanksgiving break
December 3	Classes resume
December 19	Last class before holiday break

2020

January 2	Classes resume
April 2	Last class before Spring break
April 14	Classes resume
April 21**	Last scheduled class

** If classes are cancelled for inclement weather or other reasons, the last day of class may be changed.

Cecil COMMUNITY COLLEGE

First Year and Second Year Students

Class hours are 6:00 p.m. to 9:00 p.m.
on Tuesdays and Thursdays

2019

September 17	First class
November 26	Last class before Thanksgiving break
December 3	Classes resume
December 19	Last class before holiday break

2020

January 2	Classes resume
March 12	Last class before Spring break
March 24	Classes resume
April 21**	Last scheduled class

** If classes are cancelled for inclement weather or other reasons, the last day of class may be changed.