

*Planning a successful career can begin in high school!*

## The Center of Applied Technology South

High school students can attend the Center of Applied Technology South (CAT-South) as a part of their regular daily schedule. In each program, students can earn credits required for graduation.

Completion of any of the 16 programs at the Center provides students with a combination of technical and academic expertise that can be utilized in a variety of ways. All programs offer the background and experience needed for immediate employment. Many programs articulate with colleges and universities, so students can earn college credits while in high school.

The programs at CAT-South offer the foundation for employment, knowledge about related careers and continuing education, and work-study positions. Studies combine both academics and applied technology.

### The four-week Career Exploration Program

This introduction to technical programs course allows students to explore four programs in one semester and earn ½ credit, or eight programs in two semesters and earn a full credit. The morning session (*B Day, period 1*) is open to students in grades 9 and 10. The after school session (*Tuesday, and Thursday from 2:35–3:45 P.M.*) is open to grades 9, 10, 11, and 12.

Semesters	Programs	Credits
One	4	½ credit
Two	8	1 credit

Students can experience the environment, equipment, materials, skills, and safety rules of their chosen technical areas. The information students gain can be of significant value in career planning and expanding their interests and abilities.

The Center of Applied Technology South is located on Central Avenue in Edgewater, MD.

Transportation is provided by the school system.



More information is available at [www.CATSouth.org](http://www.CATSouth.org)  
 Phone: 410-956-5900 | Fax 410-956-5905  
 211 Central Ave, East | Edgewater, MD 21037

### CAT-South Programs Include:

- Honors Academy of Health Professions
- Automotive Collision Repair & Refinishing
- Automotive Technology
- Carpentry
- Honors Cisco Academy
- Cosmetology
- Honors Culinary Arts
- Honors Dental Assisting
- Drafting/CAD
- Electricity
- Heating, Ventilation, and Air Conditioning (HVAC)
- Honors Interactive Media Production
- Marine Repair Technology
- Honors Network Systems Administration (NSA)
- Welding

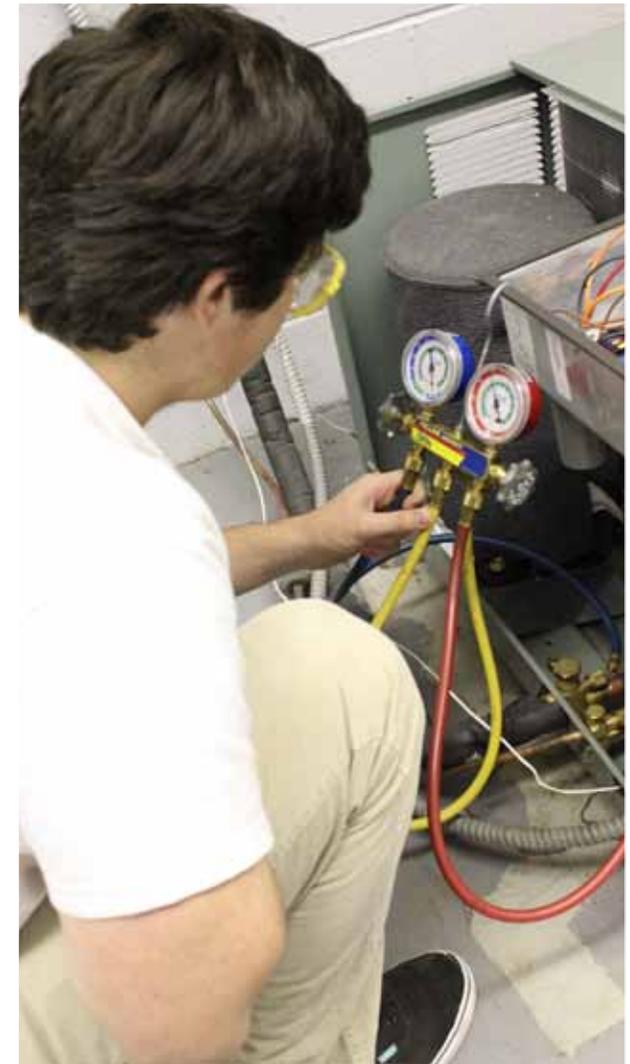


ANNE ARUNDEL  
 COUNTY PUBLIC SCHOOLS

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For more information, contact: The Office of Investigations  
 Anne Arundel County Public Schools  
 2644 Riva Road, Annapolis, Maryland 21401  
 (410) 222-5286; TDD (410) 222-5500  
[www.aacps.org](http://www.aacps.org)

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Center of Applied Technology South  
**Heating, Ventilation,  
 and Air Conditioning**  
 (HVAC)

*Turning Passions Into Professions*

Anne Arundel County Public Schools

# What is it?

Basic principles and practical applications to the **Heating, Ventilation, and Air Conditioning (HVAC)** industry are introduced in this two to three year program. Electro-mechanical theory, basic electricity, and wiring diagrams are studied. Instruments usage, troubleshooting, maintenance, design and repair of HVAC systems are components of this program. The Heating, Ventilation, and Air Conditioning (HVAC) **level II** program gives students advanced training in the techniques, processes and theories introduced in the **level I** course. Students work on gas and oil furnaces, central air conditioners and heat pumps. After completing the HVAC **Level II** program, students can enter the cooperative work experience program.

Upon completion of the HVAC program students take the environmental protection agency's *Chlorofluorocarbon (CFC) Certification Test* and can earn credit towards the Maryland state journeyman license. Career opportunities are available in manufacturing, wholesaling, retailing, and building maintenance.

# About the program...

## You will:

Gain experience in many aspects of the HVAC field, including:

- Safe work practices in the HVAC shop and trade
- Knowledge of basic electrical theory
- Use of hand tools
- Cutting and soldering tubing
- Constructing projects for residential HVAC
- Applying principles and demonstrate a knowledge of commercial HVAC installation

Earn credits in Technical Education, Applied Science, and Mathematics

## What are the Program Requirements?

- Students in 10<sup>th</sup> or 11<sup>th</sup> grade
- Satisfactory performance in:
  - Attendance
  - Discipline
  - Academic subjects
- Sufficient aptitude and ability for completion of the chosen sequence
- Parent approval
- Physical capability to pursue the chosen trade
- Approval of the administrator of CAT-South
- Ability to accept and follow directions



## What are the Credit Requirements?

Credits required for Completer—4		
<b>Level I</b>	1.0 credits	one semester
<b>Level II</b>	3.0 credits	two semesters
Technical Math	1 credit	two semesters
Optional		
<b>Work Experience</b>	2.0 credits	one semester
	4.0 credits	two semesters

## Can you earn College Credit?

The Community College of Baltimore County (CCBC) offers 13 college (articulated) credit in these specified courses, if students have completed the HVAC program, have earned a “B” average, and are admitted to CCBC in the corresponding program.

<b>AIRC 110</b> HVAC Safety, Tools, and Methods	3 credits
<b>AIRC 115</b> Fundamentals of Refrigeration	3 credits
<b>AIRC 205</b> Heating Systems	3 credits
<b>ELEI 101</b> Basic HVAC Electricity	4 credits

## What are Possible Career Opportunities?

- Cooling Mechanic
- Heating Mechanic
- HVAC Assembler
- HVAC Installer
- HVAC Sales Representative
- Refrigeration Mechanic

## What are Related Careers?

- Applied Technology Instructor
- Building Maintenance Supervisor
- HVAC Designer
- HVAC Engineer