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 part of their regular daily schedule. In each program, students can earn credits required for graduation.

Completion of any of the 14 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 universitites, 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 Career Exploration Program

The Career Exploration program allows students to explore four programs in one semester and earn 0.5 credit. Career Explorations is taken during period 1B. Transportation is provided to and from CAT South.

Semesters	Programs	Credits
One	4	1/2 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.

CENTER OF APPLIED TECHNOLOGY
TURNING PASSIONS INTO PROFESSIONS
SOUTH

More information is available
at www.catsouth.org

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211 Central Ave, East
Edgewater, MD 21037

ANNE ARUNDEL
COUNTY PUBLIC SCHOOLS

Heating, Ventilation, and Air Conditioning (HVAC)

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 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 2** course gives students advanced training in the techniques, processes and theories introduced in the **Level 1** course. Students work on gas and oil furnaces, central air conditioners and heat pumps. After completing the HVAC Level 2 course, students can enter the work-based learning program.

Upon completion of the HVAC program students take the Environmental Protection Agency's *Chlorofluorocarbon (CFC) Certification test* and can earn credit toward the Maryland state journeyman license.

Skills and career development through the *National Center for Construction Education and Research's* (NCCER) training curriculum, provides students with industry recognized credentials in a national registry. Students are also guided in preparing a resume, a portfolio, and employment interview skills. Completion of the HVAC program offers graduates many options for employment in the construction industry and college credits can be earned. There are several colleges that offer related courses leading to Associate of Arts or Bachelor of Science degrees.

About the program...

You will:

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

- Demonstrating safe work practices in the HVAC shop and trade.
- Demonstrating a knowledge of basic electrical theory.
- Cutting and soldering tubing.
- Constructing projects for residential HVAC.
- Applying principles and demonstrating a knowledge of commercial HVAC installations.
- The ability to earn industry recognized NCCER credentials in a curriculum that employs the Contren Learning Series including the Level 1 Fundamental text and the Core Curriculum Training Guide.

Program Requirements

- Students must be entering 10th or 11th grade.
- Students must maintain a 2.0 GPA in all classes.
- Students must maintain a C or better to continue to level 2.

Credit Requirements

Credits required for completer — 4		
Level I	1.0 Credit	One semester
Level II	3.0 Credits	Two semesters
Technical Math	1.0 Credit	Two semesters
Optional		
Work Based Learning	2.0 Credits	One semester
	4.0 Credits	Two semesters

College Credit

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

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

Career Opportunities

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

Related Professions

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