Got Skills? We do! GCHS-HVAC/R

Make the most out of High School.

Learn a Trade that no one can take from you and begin earning good money.

In these courses of study you will be introduced to the HVAC/R Industry. This course is for the young man or woman that wants the edge on their competition. This course strives to stay on the cutting edge of technology with the latest equipment and test equipment that is used in the Industry today. With these skills you will be able to go on to a two year postsecondary program in HVAC/R or get a job with a HVAC company when you graduate. GSCC scholarships available





- OSHA 10-hour Const. Card
  - EPA 608
  - NCCER Accredited

# College and Career Ready!



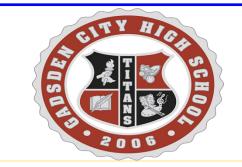
## Gadsden City High School

1917 Black Creek Parkway Gadsden, Al. 35904

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The Gadsden City Board of Education does not discriminate on the basis of race, color, national origin, sex, disability, or age in its programs and activities and provides equal access to the Boy Scouts and other designated youth groups.

## Gadsden City High School Career Tech



Begin a career in Heating, Ventilation, Air-Conditioning, And Refrigeration Invest the Time for your Future.

> 256-543-3614 Ext. 4520





Brazing techniques learned and acquired

# HVAC/R Technology

Heating, Ventilation, Air Conditioning, and Refrigeration (HVACR) provides classroom and laboratory experiences utilizing current and emerging technologies to enable students at entry level to perform the installment; repair; and maintenance of commercial, industrial, and domestic air conditioning systems. **Receive an OSHA 10-hour Safety Card and NCCER Construction Credential.** 

## Architecture and Construction Foundations

(Introduction to HVAC/R)

Introduction to HVACR is a one-credit course that introduces students to the basic principles of heating, ventilation, air conditioning, and refrigeration. Instruction provides students with knowledge and skills regarding theory and principle of refrigeration, heat transfer components, mechanical angle of operation, and refrigeration characteristics. Upon successful completion of this course, students are able to understand the functions of HVACR components, understand HVACR terminology, practice safety in the workplace, and practice appropriate use and care of tools and equipment. In addition, students are able to read blueprints and estimate labor and material costs.

#### HVAC Installation and Operation (Compression and Refrigeration)

Compression Refrigeration is a one-credit course that introduces students to different components of a refrigeration system and the functions of each component. Emphasis is placed on recovery and recycling of refrigerants. Upon successful completion of this course, students are able to draw a refrigeration system; label components; provide temperature, pressure, and condition of the refrigerant; and properly evacuate a system with use of recovery equipment. Students learn various means for detecting leaks, ways to replace a compressor, and procedures to follow according to ventilation regulations. The prerequisite for this course is HVAC Fundamentals. **Refrigerant EPA 608 Certification** 



### Career Pathway Project for Architecture and Construction (Heating & Heat Pumps)

Heating is a one-credit course that introduces students to the fundamental concepts of heating systems with emphasis on components, operations, general service procedures, and basic installation procedures. Special emphasis is placed on heat pumps. Topics include refrigeration cycle operations, system components, and troubleshooting. Upon successful completion of this course, students should be able to install and service gas and electrical furnaces and heat pumps. This is the fifth course that requires 3 other HVAC classes.



Hands on experience on new and old technology of forced-air gas Furnaces and heat pumps —get ahead of your competition.

#### HVAC Fundamentals (Intro. to Electricity for HVAC/R)

Introduction to Electricity is a one-credit course designed to provide students with the basic knowledge and skills regarding electrical theory, circuitry, and computers as they relate to HVACR. Upon successful completion of this course, students should be able to demonstrate basic understanding of safety including definitions of electrical terms, symbols, laws, circuits, testing, instrument usage, and wiring diagrams and symbols.





Constructing/troubleshooting electrical circuits

### HVAC Refrigeration Systems

*(Electrical Components and Controls)* Electrical Components and Controls is a onecredit course that introduces students to electrical components and controls for the HVACR systems. Topics include electrical motors, window air conditioners, and wiring diagrams. Upon successful completion of this course, students demonstrate knowledge of types of motors, relays, and controls in HVACR equipment. The prerequisites for this course are HVAC Fundamentals and Installation/ Operation.