

Specialized Work Ready Program of Choice

Student Plan of Study-HVACR (LCCA) / Basic Residential AC System Design Certificate (LT)

Draft



This full time PLAN OF STUDY should serve as a guide for the next four years. Courses listed in this plan are only recommended coursework and should be individualized to meet each student's educational and career goals. All plans will meet minimum high school graduation requirements. Applicants to the University System of Georgia should be advised that meeting minimum requirements will not guarantee admission. Postsecondary institutions may set additional requirements.

Grade Level	English – 4 units (*specific course required for graduation)	Math – 4 Units (*specific course required for graduation)	Science – 4 Units (*specific course required for graduation)	Social Studies – 3 Units (*specific course required for graduation)	HVACR Certificate Program	Zero or 7th Period
9th Grade	9th Literature & Composition* Or World Literature	GSE Coord. Algebra* Or GSE Analytic Geometry*	Physical Science/Physics* Or Biology*	World History*	1st Semester: Industry Fundamentals & Occupational Safety 2nd Semester Introduction to HVACR Systems ~10 hrs Industry Experience per Semester	Health* & PE* (*specific required for graduation)
10th Grade	World Literature Or American Literature / Composition*	GSE Analytic Geometry* Or GSE Adv. Algebra	Biology* Or Chemistry / Environmental Science / Forensic Science	US History*	1st Semester: HVACR 2nd Semester: Low Voltage Electrical ~20 hrs Industry Experience per Semester	DE COMP 1000 Intro to Computers (Online)
11th Grade	American Literature / Composition* Or TCR English	GSE Adv. Algebra Or TCR Math	Environmental Science / Forensic Science Or Dual Enrollment	Econ* / Gov* (High School) Or Dual Enrollment Econ or Government	WBL - Youth Apprenticeship (possible 2 periods WBL) Or 1st Semester: DE AIRC 1005 Refrig. Fundamentals 2nd Semester: DE AIRC 1010 Refrig. Principles/Pract.	DE EMPL 1000 Interpersonal Relations
12th Grade	DE ENGL 1010 Or DE ENGL 1101	DE MATH 1012	Environmental Science Or Forensic Science		WBL - Youth Apprenticeship (possible 3 periods of WBL) Or 1st Semester DE AIRC 1020 Refrig. Syst. Components 2nd Semester DE AIRC 1060 AC Syst. App./Install	
Students seeking a Diploma in Air Conditioning Technology will need to take 6 additional AIRC courses.						

Sample High Demand Careers Georgia

Occupation Specialties	Level of Education Needed	Georgia Average Salary	Annual Average Openings in Georgia	Employment Outlook
HVAC Mechanic & Installer	Post-Secondary Certificate	\$47,080	1,160	High Demand, High Skill
HVAC Helper/Repair Worker	Post-Secondary Certificate	\$23,500	Increasing	High Demand, High Skill
HVAC Service Tech	Post-Secondary Certificate	\$42,110	Increasing	High Demand, High Skill

Job Outlook HVAC Mechanic / Installer	
Total Jobs in 2016	9,950
Expected Growth	14.9% (As fast as average)
New Jobs to Be Added from 2016-2026	1,160
Median Pay	\$42,110 - \$47,080



Related Pathway Occupations	Other Related Occupations
<ul style="list-style-type: none"> • HVAC Installers • HVAC Mechanics • HVAC Technicians • Sheet Metals • Pipe Fitters & Steamfitters • Helper-Installation, Maintenance & Repair Workers 	<ul style="list-style-type: none"> • Welders • Machinists • Electrician Technicians • Carpenters • Environmental Engineer Technician

SkillsUSA is a national membership association serving high school, college and middle school students who are preparing for careers in trade, technical and skilled service occupations, including health occupations, and for further education. SkillsUSA is a partnership of students, teachers and industry working together to ensure America has a skilled workforce. SkillsUSA helps each student excel.

SkillsUSA empowers its members to become world-class workers, leaders and responsible American citizens. SkillsUSA improves the quality of our nation's future skilled workforce through the development of Framework skills that include personal, workplace and technical skills grounded in academics.



HVACR / AC Technology

HVACR stands for heating, ventilation, air-conditioning, and refrigeration systems. These systems control the temperature, humidity and total air quality of indoor environments and permit the storage and transport of food, medicine, and other perishable items. People who work in the HVACR industry install, maintain, and repair such systems. HVACR technicians are high skilled workers because the systems on which they work consist of mechanical, electrical, and electronic parts, such as motors, compressors, pumps, fans, ducts, pipes, thermostats, and switches. Technicians must be proficient in reading and interpreting blueprints and manufacturers' specification manuals.

When mechanics install and service equipment, they must use care, which is especially true when working with cooling systems. The release of refrigerants causes damage to the Earth's atmosphere. Consequently, HVACR technicians must comply with several laws and regulations that protect the environment

HVACR technicians usually train through one or two-year professional-technical programs. Many heating and cooling system mechanics gain apprenticeship training, normally consisting of four years of on-the-job training. Conditioned air contractors must be licensed in Georgia.

Major employers are heating and cooling system installation companies, electrical contractors, and heating and cooling system retailers. Job prospects are excellent because of the growing focus on improving indoor air quality and the increasing use of refrigerated equipment by a growing number of stores and gasoline stations. In addition, environmental concerns will lead to the development of more efficient systems and a growing need for technicians to install, maintain, and repair new systems. If federal and state laws continue to encourage individuals and companies to install more efficient HVACR equipment, job growth for HVACR technicians becomes even more fast paced.



The Hall County Board of Education is an equal opportunity employer and does not discriminate on the basis of race, color, national origin, age, religion, handicapping condition, or sex in its education programs or employment.

Name (Printed) _____ Student Signature _____ Date _____

Parent/Guardian Signature _____ Date _____

Advisor/Counselor _____ Date _____