

HVACR >>>

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 highly 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.

HIGH SCHOOL PATHWAY CLASSES



INDUSTRY FUNDAMENTALS & OCC SAFETY is designed as the foundational course in the Carpentry, Plumbing, Electrical, Masonry, Machining, Welding, Sheet Metal, Heating, Ventilation, Air Conditioning and Refrigeration, and HVACR Electrical pathways to prepare students for pursuit of any career in construction. Students obtain the basic knowledge to function safely on or around a construction site and in the industry in general and will provide the trainee with the option for an Industry Certification in the Construction Core.

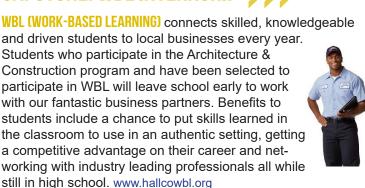


INTRODUCTION TO HVACR SYSTEMS is the second step in gaining a Level One Industry Certification in one of two craft areas and the goal of the course is to introduce students to the basic building blocks of the HVACR and Low Voltage Electrical craft trades. Students will explore how the crafts affect the mechanical systems in a building and will learn and apply knowledge of the electrical, electronic, and mechanical components related to each trade. In addition, students will be introduced to, and develop skills to differentiate between tools used in each individual craft area.

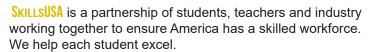


HEATING, VENTILATION, AIR CONDITIONING & REFRIGERATION is the third step in gaining a Level One Industry Certification in HVACR. Students will acquire knowledge of the hardware and systems used by an HVACR technician and basic installation skills. In addition, students will obtain general knowledge of refrigeration and heating processes, including electronic circuitry, and will learn about the integration between electrical and HVACR fields.

CAPSTONE: WBL INTERNSHIP >>



CAREER TECH STUDENT ORGANIZATIONS



SkillsUSA's mission is to empower its members to become world-class workers, leaders and responsible American citizens. We improve the quality of our nation's future skilled workforce through the development of SkillsUSA Framework skills that include personal, workplace and technical skills grounded in academics. Our vision is to produce the most highly skilled workforce in the world, providing every member the opportunity for career success.



POTENTIAL CAREERS >>

- General Contractor
- HVAC Installer
- Project Inspector
- Subcontractor
- Construction Engineer
- Construction Manager
- Construction Foreman
- · Materials Manager
- Pipelayers

- · Safety Director
- Field Supervisor
- · Sales & Marketing
- Superintendent
- · Equipment Manager
- Estimator
- · Sheet Metal Worker
- Pipe Fitter



HVACR

CAREER PATHWAY - PLAN OF STUDY

GRADUATION REQUIREMENTS

ENGLISH/LANGUAGE ARTS

4 Units Must Include: 9th Grade Literature & American Literature

SOCIAL STUDIES

3 Units Must Include: World History, US History, Government & Economics

MATHEMATICS

4 Units Must Include:

GSE Algebra I, GSE Geometry & GSE Algebra II

one additional GSE/AP/IB/DE Math course

GSE Accelerated Algebra I/Analytic Geometry A, GSE Accelerated Geometry B/Algebra II, GSE Precalculus

one additional GSE/AP/IB/DE Math course

SCIENCE

4 Units Must Include: Physical Science or Physics; Biology;

Chemistry, Earth Systems, Environmental Science or AP/IB course

one additional Science course

HEALTH & PERSONAL FITNESS

1 Unit Must Include: 1/2 unit of each

CAREER, TECHNICAL & AGRICULTURE EDUCATION (CTAE)

3 Units Must include:

Industry Fundamentals & Occ. Safety, Introduction to HVACR Systems, HVACR

ELECTIVES

4 Units

*Students planning to attend most post-secondary institutions must take 2 units of the same modern language.

TOTAL UNITS REQUIRED

23 Units

PERSONAL APTITUDES

ACTIVITIES THAT DESCRIBE WHAT I LIKE TO DO:

- Read & follow blueprints and/or instructions.
- · Picture in my mind what a finished product looks like.
- · Work with my hands.
- · Perform work that requires precise results.
- · Solve technical problems.
- · Visit & learn from historic or interesting buildings.

PERSONAL QUALITIES THAT DESCRIBE ME:

Curious

- · Good at visualizing possibilities
- Good at following directions
 Patient
- Pay attention to detail
- Persistent

WANT MORE INFORMATION ON YOU?

YouScience is the science of YOU – how your mind is wired, what makes you tick, the skills and knowledge that set you apart. You have talent and there's a path that's right for you -ို္င္္ရင္ရွိ we can help you find it.

Login to Infinite Campus and locate the SLDS Portal link on the left. Once logged in, click on "My Career Plan" then choose "Go to YouScience".

WHAT YOU LEARN IN SCHOOL MATTERS

You're learning skills and knowledge that can make you a qualified candidate for in-demand careers. Industry-recognized certifications, available to all pathway students, are great signals to employers that you have the skills they're looking for. Certifications help validate what you know, so other people know, that you know it.

OUESTIONS?

Contact your CTAE teacher, WBL Coordinator or School Counselor

PATHWAY TO FUTURE CAREER OPTIONS

HIGH SCHOOL

Capstone

POST-SECONDARY

Pathway Courses

Technical College

4 Year College/University

Industry Fundamentals & Occ. Safety Introduction to HVACR Systems HVACR

WBL Internship **Dual Enrollment**

Bachelor Degree Masters Degree





