

SCIENCE, TECHNOLOGY, ENGINEERING & MATHEMATICS

Toriano Pope, Instructor

INDUSTRY CERTIFICATIONS

- Core: Introductory Craft Skills
- Customer Service
- EPA Technician
- Heating, Electrical, Air Conditioning Technology—HEAT—Examination
- Heating, Ventilation, Air Conditioning and Refrigeration — HVAC/R
- Heating, Ventilation, and Air Conditioning—HVAC
- HVAC
- Installer (or Service) Core—HVAC/R
- National Career Readiness
- Residential Construction Academy
- Workplace Readiness Skills for the Commonwealth

POSSIBLE CAREER PATHWAYS

- Air Conditioning Mechanic
- Refrigeration Mechanic
- Heating Technician
- Construction
- Design/Pre-Construction
- Maintenance and Operations

COLLEGE AND CAREER OPPORTUNITIES

- Advance Technology Institute
www.auto.edu/
- Wyotech www.wyotech.edu/
- Know How Virginia
www.knowhowvirginia.org/
- Tidewater Community College
www.tcc.edu/
- College Board
www.collegeboard.com/
- Virginia Career View
www.vaview.vt.edu/
- Indeed Online Job Search
<http://www.indeed.com/>
- Career Connection
<http://jobs.hamptonroads.com/>

STARTING SALARY

\$36,200 - \$45,110

Earning may vary by specialty

Bureau of Labor Statistics, U.S. Department of Labor, *Occupational Outlook Handbook, 2016-17 Edition*, Heating, Air Conditioning, and Refrigeration Mechanics and Installers, on the Internet at <http://www.bls.gov/ooh/installation-maintenance-and-repair/heating-air-conditioning-and-refrigeration-mechanics-and-installers.htm>

**The Heating, Ventilation, Air Conditioning and Refrigeration course participates in the SkillsUSA co-curricular club.



PROGRAM DESCRIPTION

This two year course is designed to provide students with the basic technical knowledge and practical skills in the air conditioning and refrigeration industry. Course content consists of fundamentals of refrigeration science, application of tools and materials, basic refrigeration systems, refrigeration system installations, troubleshooting, servicing, repair, pipe-tubing applications, soldering, basic electricity, related math and air conditioning maintenance needed for entry level employment.

PROGRAM CONTENTS/SKILLS

- Demonstrating Workplace Readiness Skills: Personal Qualities and People Skills
- Demonstrating Workplace Readiness Skills: Professional Knowledge and Skills
- Demonstrating Workplace Readiness Skills: Technology Knowledge and Skills
- Examining All Aspects of an Industry
- Addressing Elements of Student Life
- Applying Basic Construction Safety Standards (Core Safety)
- Focusing on the HVACR Profession
- Understanding the Theory of Heat
- Working with Piping and Tubing
- Understanding Basic Electricity
- Servicing and Maintaining Refrigeration Systems
- Understanding Motors and Controls
- Servicing and Maintaining Cooling Systems
- Sizing and Installing Duct Systems
- Complying with EPA Laws and Regulations
- Exploring Environmentally Friendly Choices

FOR FURTHER INFORMATION contact (757) 892-3300 or schools.nps.k12.va.us/ntc