



**Program of Study (POS): HEATING, VENTILATION, AIR CONDITIONING,  
AND REFRIGERATION (HVAC-R)**

**Classification of Instructional Program (CIP): 47.0201**

Topic	Information	Resources
Classroom tests	Quizzes; chapter tests; research assignments; other types of written tasks	Schoology; Quizlet, study guides
Midterm and/or final exams	NOCTI end-of-program assessment for grade 12 students, who are eligible completers	www.nocti.org
Industry certification tests and costs	<ul style="list-style-type: none"> <li>• OSHA-10 \$25</li> <li>• EPA 608: \$25</li> <li>• R-410A Technician: free</li> </ul>	www.epatest.org; www.careersafeonline.com
Number of books	3: <i>Fundamentals of ACR; Blueprints and plans for HVAC; Residential Construction Academy</i>	www.cengagelearning.com
Direct instruction (%)	15%	
Cooperative education	Available to students who qualify, typically individuals in their 3 <sup>rd</sup> year and in grade 12	Lori Warabow, Work-based Learning Coordinator: 412.469.3200, x2542
Homework	Assigned at teacher’s discretion; make-up work	Canvas
Task list	Program of study list for CIP 47.0201	www.pde.state.pa.us (search (PDE CIP POS task list)
Prerequisites	Algebra 1; completion of grade 9; grades of “C” or greater in academic subjects; strong interest in HVAC and/or other related trades	
Reading levels	End of grade 9	
Math levels	End of grade 9	
Program requirements and related costs (required and optional)	Required uniform: custom shop T- shirt and/or hoodie \$60+; long pants: \$20-\$50+; leather work boots \$45+ (steel toe encouraged but not required) Hardhat \$15	www.steelcentertech.com HVAC-R homepage
Dual enrollment	None at this time, though may be available through respective sending high schools	Mr. Shannon Hinkle, School Counselor: 412.469.3200, x2517
Articulation agreements	CCAC; Triangle Tech; Pittsburgh Technical College; Rosedale Technical College; UNOH; others	PDE: www.pde.state.pa.us (search SOAR); Mr. S. Hinkle, Counselor: 412.469.3200, x2517
Essential aptitudes and skills	Problem solving skills; strong math skills; an ability to read manuals, comprehend text, and understand diagrams; mechanical aptitude; customer service skills; time management skills; creativity; willingness to learn	
Work environment	Danger of electrical shock; dusty, extremely cold, and extremely hot conditions; climbing ladders regularly; working in tight spaces; working outdoors in all types of weather	HVAC-R rules, as outlined in the program syllabus: www.steelcentertech.com

\* More detailed information may be provided upon acceptance to this program.