



Program: Air Conditioning, Heating, Refrigeration, and Electrical CIP: 470201									
LIST ALL COURSES REQUIRED AND IDENTIFIED COMPETENCIES									
Competencies								Course Number	Course Title
1	2	3	4	5	6	7	8		
X	X	X	X	X				HART 1301	Basic Electricity for HVAC
X	X		X	X			X	HART 1307	Refrigeration Principles
X	X							HART 1356	EPA Recovery Certification Preparation
X	X	X	X	X				ELPT 1329	Residential Wiring
X	X	X	X	X				ELPT 1325	National Electrical Code 1
X	X	X	X	X			X	HART 1345	Gas and Electric Heating
X	X	X	X	X				ELPT 1357	Industrial Wiring
X	X	X	X	X				ELPT 1345	Commercial Wiring
X	X	X	X	X			X	HART 2336	Air Conditioning Troubleshooting
X	X	X	X	X				ELPT 2305	Motors and Transformers
X	X	X	X	X				HART 2442	Commercial Refrigeration
X	X	X	X	X				HART 2441	Commercial Air Conditioning
X	X	X	X	X				ELPT 2325	National Electrical Code II
X	X		X	X				ELPT 1321	Introduction to Electrical Safety and Tools
X	X		X	X			X	HART 2349	Heat Pumps
								COMPETENCY REFERENCES	
								8 Basic use of computers	
								7 Workplace Competencies: resources; interpersonal skills; information; systems; and technology.	
								6 Personal Qualities: A worker must display responsibility, self-esteem, sociability, self-management, integrity, and honesty.	
								5 Thinking Skills: A worker must think creatively, make decisions, solve problems, visualize, know how to learn, and reason effectively.	
								4 Speaking and Listening: Organize ideas and communicate orally; receive, attend to, interpret, and respond to verbal messages and other cues.	
3 Arithmetic or Mathematics: Perform basic computations and approach practical problems by choosing appropriately from a variety of mathematical techniques.									
2 Writing: Communicate thoughts, ideas, information, and messages in writing, and create documents such as letters, directions, manuals, reports, graphs, and flow charts.									
1 Reading: Locate, understand, and interpret written information in prose and in documents such									

as manuals, graphs, and schedules.



SCANS COMPETENCIES FOR PROGRAM Air Conditioning, Heating Refrigeration, and Electrical			
Competency	Course where Competency is Assessed	Method of Assessment	Findings and Plans for Improvements
1 READING: Locate, understand, and interpret written information in prose and in documents such as manuals, graphs, and schedules.	HART 1301, Hart 1307, ELPT 1321, ELPT 1329, ELPT 1325, HART 1341, ELPT 1357, ELPT 1345, HART 2336, ELPT 2305, HART 2442, HART 2441, ELPT 2325	Quiz and examination questions	Assessment findings shows that implementation of the newest edition of text books have helped students better understand published industry information.
2 WRITING: Communicate thoughts, ideas, information, and messages in writing, and create documents such as letters, directions, manuals, reports, graphs, and flow charts.	HART 1301, Hart 1307, ELPT 1321, ELPT 1329, ELPT 1325, HART 1341, ELPT 1357, ELPT 1345, HART 2336, ELPT 2305, HART 2442, HART 2441, ELPT 2335	Quiz and examination questions	Assessment in writing shows that student graduating from high school have weaker writing skills than older students. Remedy ; increase written exercises
3 ARITHMETIC OR MATHEMATICS: Perform basic computations and approach practical problems by choosing appropriately from a variety of mathematical techniques.	HART 1301, ELPT 1329, ELPT 1325, HART 1341, ELPT 1357, ELPT 1345, HART 2336, ELPT 2305, HART 2442, HART 2441, ELPT 2325	Classroom exercises, and quiz and examination questions	Assessment shows that arithmetic skills are at the level needed for the industry
4 SPEAKING AND LISTENING: Organize ideas and communicate orally; receive, attend to, interpret, and respond to verbal messages and other cues.	HART 1301, Hart 1307 ELPT 1329, ELPT 1325, HART 1341, ELPT 1357, ELPT 1345, HART 2336, ELPT 2305, HART 2442, HART 2441, ELPT 2325	Classroom and lab exercises	Program have implemented soft service skills to curriculum
5 THINKING SKILLS: A worker must think creatively, make decisions, solve problems, visualize, know how to learn, and reason effectively.	HART 1301, Hart 1307 ELPT 1329, ELPT 1325, HART 1341, ELPT 1357, ELPT 1345, HART 2336, ELPT 2305, HART 2442, HART 2441, ELPT 2325	Classroom exercises, and quiz and examination questions	Thinking skills have been improving due to more problem solving procedures added to simulation projects.
6 PERSONAL QUALITIES: A worker must display responsibility, self-esteem, sociability, self-management, integrity, and honesty.			
7 WORKPLACE COMPETENCIES: resources; interpersonal skills; information; systems; and technology			
8 BASIC USE OF COMPUTERS	HART 1307, HART 2336	Classroom/computer lab exercises	Computer simulation have increased computer skills towards student learning outcomes