

CERTIFICATE OF ACHIEVEMENT

The Air Conditioning Technology Program is an 18-month course of study that prepares students to install, maintain, service, troubleshoot and repair residential heating and cooling systems. Additionally, this program includes commercial refrigeration, allowing the student to learn how to maintain, troubleshoot and repair walk-in freezers, ice machines, ice cream machines and other related machinery. Instruction includes classroom, laboratory and actual in-the-field hands-on course work.

**STUDENT LEARNING OUTCOMES - Graduates of this program will have the opportunity to:**

- Perform the basic tasks of a Heating, Ventilation, Air Conditioning, and Refrigeration (HVAC/R) technician in a residential and light commercial environment.
- Read and interpret electrical schematics; troubleshoot and diagnose mechanical and electrical problems using methods and equipment appropriate to this industry.
- Utilize currently accepted EPA rules, techniques, and regulations in the performance of HVAC/R duties; observe proper safety practices when working with high- and low-voltage electricity, and when working with refrigerants under pressure.

**GENERAL EDUCATION REQUIREMENTS (3 Credits):**

	CR	SEMESTER
<b>COMMUNICATIONS:</b> COM 115, ENG 100, 101, 107, 113	3-5	_____

**SPECIAL PROGRAM REQUIREMENTS (41 Credits):**

	CR	SEMESTER
<b>AC 102B</b> Introduction to HVAC Electrical Theory and Application	5	_____
<b>AC 103B</b> Introduction to HVAC Mechanical Theory and Application	5	_____
<b>AC 106B</b> Residential Gas Heating	5	_____
<b>AC 110B</b> Intermediate HVAC Electrical Theory and Application	5	_____
<b>AC 111B</b> Heat Pumps	5	_____
<b>AC 115B</b> Troubleshooting	5	_____
<b>AC 200B</b> Commercial Refrigeration I	5	_____

**Plus 6 credits from the following**

<b>AC 114B</b> Heat Load and Duct Design	5	_____
<b>AC 116B</b> Copper Fundamentals	1	_____
<b>AC 119B</b> Professionals in Customer Service	1.5	_____
<b>AC 120B</b> Air Conditioning Duct Work Fabrication	3	_____
<b>AC 202B</b> Commercial Refrigeration II	5	_____
<b>AC 210B</b> Boiler Operation and Maintenance	3	_____
<b>AC 221B</b> Gas Heat Pump Technology I	5	_____
<b>CADD 100</b> Introduction to Computer Aided Drafting	3	_____
<b>CONS 120B</b> Printreading and Specifications	3	_____
<b>IS 101</b> Introduction to Information Systems	3	_____

Computation included in AC 102B

Human Relations included AC 103B

**NOTE:** Courses with a B suffix (example - XYZ 123B) may be non-transferable for a NSHE baccalaureate degree.

AC-CT

**44**  
Total Credits

Students may elect to graduate using the degree requirements in effect at the time of matriculation, or when they declared or changed major or the current catalog. If a program is official after a student has matriculated, the student may choose the degree requirements of the new program. In no case may a student use a catalog which is more than six years old at the time of graduation.

Guided Pathway 2013-2014  
**COA AIR CONDITIONING TECHNOLOGY**  
 44 Credits

<b>First Semester Fall</b>		<i>Credits</i>	<i>Completed</i>
AC 102B	Intro to HVAC Electrical Theory and Application	5	_____
AC 103B	Intro to HVAC Mechanical Theory and Application	5	_____
ENG 100, 101, 107, 113		3	_____
	Prerequisite: English Placement Test		_____
<b>Total</b>		<b>13</b>	

<b>Second Semester</b>		<i>Credits</i>	
AC 106B	Residential Gas Heating	5	_____
	Prerequisite: AC 102, 103		_____
AC 110B	Intermediate HVAC Electrical Theory and Application	5	_____
	Prerequisite: AC 102, 103		_____
<b>Total</b>		<b>10</b>	_____

<b>Third Semester</b>		<i>Credits</i>	
AC 111B	Heat Pumps	5	_____
	Prerequisite: AC 110		_____
AC 200B	Commercial Refrigeration I	5	_____
	Prerequisite: AC 102, 103, 111		_____
<b>Total</b>		<b>10</b>	<b>Fall Only</b>

<b>Fourth Semester</b>		<i>Credits</i>	
AC 115B	Troubleshooting	5	_____
	Prerequisite: AC 111		_____
AC Elective: Choose one from back		3	_____
AC Elective: Choose one from back		3	_____
<b>Total</b>		<b>11</b>	

Guided Pathway 2014-2015  
**COA AIR CONDITIONING TECHNOLOGY**  
 44 Credits

<b>First Semester Fall</b>		<i>Credits</i>	<i>Completed</i>
AC 102B	Intro to HVAC Electrical Theory and Application	5	_____
AC 103B	Intro to HVAC Mechanical Theory and Application	5	_____
MATH 104, 116 or above (except MATH 122, 123)			_____
	Prerequisite: Math Placement Test, this class is required for AC 110		_____
<b>Total</b>		<b>10</b>	

<b>Second Semester</b>		<i>Credits</i>	
AC 106B	Residential Gas Heating	5	_____
AC 110B	Intermediate HVAC Electrical Theory and Application	5	_____
	Prerequisite: AC 102, 103, MATH 104 or above		_____
COM 115	Applied Communication	3	_____
<b>Total</b>		<b>13</b>	_____

<b>Third Semester</b>		<i>Credits</i>	
AC 111B	Heat Pumps	5	_____
	Prerequisite: AC 110		_____
AC 200B	Commercial Refrigeration I	5	_____
	Prerequisite: AC 110 and COM 115 or ENG 107		_____
<b>Total</b>		<b>10</b>	

<b>Fourth Semester</b>		<i>Credits</i>	
AC 115B	Troubleshooting	5	_____
	Prerequisite: AC 111		_____
AC Elective: Choose one from back		3	_____
AC Elective: Choose one from back		3	_____
<b>Total</b>		<b>11</b>	