



## HEATING AND AIR CONDITIONING Certificate Program

Career Curriculum HAC0006  
Certificate Program  
Minimum Hrs. 45  
Major Code: 1.2 470201J

### FIRST YEAR – FALL SEMESTER

Dept. No.		Hrs.	Gr.
ELT 102	Basic Electricity and Wiring	4	—
HAC 121	Heating I	4	—
MAT 113	Introduction to Contemporary Mathematics OR	3	—
	MAT 105 Vocational Mathematics OR		
	MAT 120 Elementary Statistics		
WEL 150	Oxy-Acetylene Fusion Welding I	1	—
WEL 152	Brazing and Soldering	1	—
		<u>13</u>	

### FIRST YEAR – SPRING SEMESTER

Dept. No.		Hrs.	Gr.
ELT 224	Power Distribution and Motors	3	—
HAC 105	Basic Sheet Metal Layout	3	—
HAC 107	Electrical Controls and Circuitry	3	—
HAC 122	Heating II	4	—
HAC 131	Refrigeration & Air Conditioning I	4	—
		<u>17</u>	

### SECOND YEAR – FALL SEMESTER

Dept. No.		Hrs.	Gr.
HAC 106	Advanced Sheet Metal Layout	2	—
HAC 132	Refrigeration & Air Conditioning II	4	—
HAC 222	Advanced Heating Systems	3	—
HAC 240	Installation of HVAC Systems	3	—
PSY 110	College Success and Career Planning OR	3	—
	ATI 200 Applied Technologies Internship	<u>15</u>	

### SUMMER SEMESTER (OPTIONAL)

Dept. No.		Hrs.	Gr.
ATI 200	Applied Technologies Internship OR PSY 110 College Success and Career Planning	3	—

The Heating and Air Conditioning Certificate Program (HAC 0006) is the parent program to:

- Heating and Air Conditioning Installer Certificate Program (HAC 2006)

*John A. Logan College reserves the right to modify this curriculum guide as needed.  
Please verify with your academic advisor the accuracy and time lines of this document.*

**Effective Date: Fall 2010**

**Additional Information:** This program prepares students for careers in the heating and air conditioning industry. The curriculum provides theory as well as sufficient laboratory experience to prepare graduates for immediate employment. Students will be trained for competency in installing, operating, troubleshooting, and maintaining all types of environmental control equipment. The graduate will receive a Certificate of Achievement.

All students registered for heating and air conditioning classes will be required to furnish a basic tool set. The basic tool set will be necessary by the beginning of the fifth week of the semester. The set includes the following:

#### Sockets

- 1/4" Socket Set

#### Screwdrivers

- Phillips Stubby Screwdriver
- #2 x 4" Phillips Screwdriver
- Flat Stubby Screwdriver
- 3/16" x 6" Slotted Screwdriver
- 5/16" x 6" Slotted Screwdriver

#### Nutdrivers

- Nutdriver ND5 1/4"
- Nutdriver ND7 5/16"

#### Pliers

- Sidecutters
- 7 1/2" Longnose Pliers
- Channel Locks

#### Wrenches

- 6" Adjustable Wrench
- 8" Adjustable Wrench
- 10" Adjustable Wrench
- 12" Adjustable Wrench
- Hex Wrench Set
- Service Valve Wrench
- Combination Wrench Set 1/4" to 3/4"

#### Additional Tools

- Wire Strippers
- Clamp-On Amp Meter
- Digital Multimeter (must read D.C. microamps-MA)
- Manifold Gauge Set
- Pocket Thermometer
- Inspection Mirror
- Sling Psychrometer
- Red and Green Tin Snips
- Tinnerns Hammer
- Dividers

Note: Cost varies from different suppliers. Tools may be purchased at Sears, Snap-On, True Value, etc.

**Career Opportunities:** Technicians, installers or maintenance personnel.