



**HEATING AND AIR CONDITIONING
Certificate Program**

Career Curriculum HAC0006
Certificate Program
Minimum Hrs. 42
Major Code: 1.2 470201J

FIRST YEAR – FALL SEMESTER

Dept. No.		Hrs.	Gr.
HAC 102	Residential Electrical Wiring	4	___
HAC 121	Heating I	4	___
MAT 113	Introduction to Contemporary Mathematics OR MAT 100 Mathematics for Applied Technologies OR MAT 120 Elementary Statistics	3	___
WEL 150	Oxy-Acetylene Fusion Welding I	1	___
WEL 152	Brazing and Soldering	<u>1</u>	___
		13	

FIRST YEAR – SPRING SEMESTER

Dept. No.		Hrs.	Gr.
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	<u>4</u>	___
		14	

SECOND YEAR – FALL SEMESTER

Dept. No.		Hrs.	Gr.
CMG 107	Construction Document Interpretation	3	___
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	<u>3</u>	___
		15	

SUMMER SEMESTER (OPTIONAL)

Dept. No.		Hrs.	Gr.
ATI 200	Applied Technologies Internship ¹ OR PSY 110 College Success and Career Planning ¹	<u>1-3</u>	___
		1-3	

¹ Although this class is recommended, it is not required for graduation from this program and therefore is ineligible for Title IV financial aid funding.

This is a Gainful Employment Certificate Program of 16 credit hours or more that prepares the student for gainful employment in a recognized occupation. For detailed information regarding program length, cost, average loan debt and completion details, select the following link to the Gainful Employment Worksheet for this program. [Gainful Employment Worksheet–Heating and Air Conditioning Certificate Program \(HAC 0006\)](http://www.jalc.edu/gainful_employment/heating_and_air_conditioning/Gedt.html). You can also access this information by typing the following URL into your browser’s address bar:
http://www.jalc.edu/gainful_employment/heating_and_air_conditioning/Gedt.html

*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: Summer 2017

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
- Tinners 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.