

**Certificate**  
in  
**Heating and Air Conditioning**

**FIRST YEAR – FALL SEMESTER**

Dept.	No.		Hrs.	Grade
ORI	100	College 101	1	_____
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	120	Oxyful, Welding, Cutting and Brazing	<u>3</u> 15	_____

**NOTES AND INFORMATION**

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

**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:

**FIRST YEAR – SPRING SEMESTER**

Dept.	No.		Hrs.	Grade
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	_____

**Sockets**

- 1/4" Socket Set

**Nutdrivers**

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

**Screwdrivers**

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

**Pliers**

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

**SECOND YEAR – FALL SEMESTER**

Dept.	No.		Hrs.	Grade
CMG	107	Construction Document Interpretation	3	_____
HAC	106	Advanced Sheet Metal Layout	2	_____
HAC	132	Refrigeration & Air Conditioning II	4	_____
HAC	140	Weatherization	3	_____
HAC	222	Advanced Heating Systems	3	_____
HAC	240	Installation of HVAC Systems	<u>3</u> 18	_____

**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.

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

**SECOND YEAR – SPRING SEMESTER (OPTIONAL)**

Dept.	No.		Hrs.	Grade
INT	101	Internship <sup>1</sup>	<u>1-3</u> 1-3	_____