



**HEATING AND AIR CONDITIONING
Degree Program**

Career Curriculum HAC0095
Associate in Applied Science
Minimum Hrs. 70
Major Code: 1.2 470201C

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		
PSY 132	General Psychology	3	___
WEL 150	Oxy-Acetylene Fusion Welding I	1	___
WEL 152	Brazing and Soldering	1	___
		<u>16</u>	

SECOND YEAR – FALL SEMESTER

Dept. No.		Hrs.	Gr.
ENG 101	English Composition I ¹ OR	3	___
	ENG 113 Professional Technical Writing ¹		
HAC 106	Advanced Sheet Metal Layout	2	___
HAC 132	Refrigeration and Air Conditioning II	4	___
HAC 222	Advanced Heating Systems	3	___
HAC 240	Installation of HVAC Systems	3	___
SPE 115	Speech	3	___
		<u>18</u>	

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	4	___
PSY 110	College Success and Career Planning OR	3	___
	ATI 200 Applied Technologies Internship	17	___

SECOND YEAR – SPRING SEMESTER

Dept. No.		Hrs.	Gr.
ELT 150	Applied Solid State Electronics	4	___
ELT 224	Power Distribution and Motors	3	___
HAC 142	Commercial Refrigeration	4	___
HAC 207	Advanced Controls and Circuitry	3	___
HAC 279	ICE Testing	2	___
PHY 121	Technical Physics	3	___
		<u>19</u>	

FIRST YEAR – SUMMER SEMESTER OPTIONAL

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

¹ Requires a grade of "C" or higher.

The Heating and Air Conditioning Degree Program (HAC0095) is the parent program to:

- Heating and Air Electrical Specialist Certificate Program (HAC 0097)
- Residential Cooling and Refrigeration Certificate Program (HAC 0098)

The minimum general education component for the Associate in Applied Science degree requires satisfactory completion of at least 15 semester credits of coursework distributed over the disciplines of Communications, Mathematics, Arts and Humanities, Physical and Life Sciences, and Social and Behavioral Sciences. The curriculum guide for each Associate in Applied Science degree program will spell out the course requirements or options available for satisfying the general education component. With appropriate justification and in consultation with your academic advisor, a request to substitute a course for one recommended in this guide may be granted with the appropriate approvals from the Department Chair, Dean for Instruction and Vice-President for Instruction. However, no substitutions are allowed in Groups I-III (General Education Component; GECC) of the curriculum guide (see the Associate in Applied Science general degree requirements worksheet in the John A. Logan College Catalog).

Students planning to transfer and pursue a baccalaureate degree should, when given a choice, enroll in the general education course that is IAI GECC approved and articulated with participating Illinois institutions.

*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 an AAS degree.

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:

Nutdrivers

- Nutdriver ND5 ¼"
- Nutdriver ND7 5/16"
- Manifold Gauge Set

Pliers

- 7" Diagonal Pliers
- 7 ½" Longnose Pliers
- 6" Slip Joint Pliers
- ARC Joint 9-1/2" Pliers

Screwdrivers

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

Sockets

- 1/4" Socket Set
- 3/8" Socket Set

Wrenches

- 6" Adjustable Wrench
- 8" Adjustable Wrench
- 10" Adjustable Wrench
- 12" Adjustable Wrench
- Hex Wrench Set
- Service Valve Wrench

Additional Tools

- Wire Strippers
- AW Sperry SPR Clamp-On Amp Meter
- UEI M110A Multimeter
- Pocket Thermometer
- Inspection Mirror
- Sling Psychrometer
- Red and Green Tin Snips
- Tinnerns Hammer
- Dividers

Note: Costs of supplies vary by supplier. Tools may be purchased at Sears, Snap-On, True Value, etc.

Career Opportunities: Technician, installer, maintenance, service manager, self-employment.