



John A. Logan College

Associate in Applied Science

Toward a Degree in Heating and Air Conditioning

Career Curriculum HAC0095
Minimum Hours: 70
Major Code: 1.2 470201C
Effective Date: Fall 2019

FIRST YEAR – FALL SEMESTER

Dept.	No.		Hrs.	Grade
HAC	102	Residential Electrical Wiring	4	_____
HAC	121	Heating I	4	_____
HAC	140	Weatherization	3	_____
MAT	113	Introduction to Contemporary Mathematics OR MAT 100 Mathematics for Applied Technologies OR MAT 120 Elementary Statistics	3	_____
ORI	100	College 101	1	_____
WEL	150	Oxy-Acetylene Fusion Welding I	1	_____
WEL	152	Brazing and Soldering	1	_____
			<u>17</u>	

NOTES AND INFORMATION

Fall Only Courses:		Spring Only Courses:	
HAC 102	HAC 105	HAC 142	
HAC 106	HAC 107	HAC 207	
HAC 121	HAC 122	HAC 224	
HAC 132	HAC 131	HAC 279	
HAC 140			
HAC 222			
HAC 240			

¹ Requires a grade of "C" or higher.

² Although this class is recommended, it is not required for graduation from this program and therefore is ineligible for Title IV financial aid funding.

FIRST YEAR – SPRING SEMESTER

Dept.	No.		Hrs.	Grade
ENG	101	English Composition I ¹ OR ENG 113 Professional Technical Writing ¹ Communication	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	_____
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The Heating and Air Conditioning Degree Program (HAC0095) is the parent program to:

- Heating and Air Conditioning Certificate Program (HAC 0006)

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.

FIRST YEAR – SUMMER SEMESTER (OPTIONAL)

Dept.	No.		Hrs.	Grade
INT	101	Internship ²	<u>1-3</u>	_____
			1-3	

SECOND YEAR – FALL SEMESTER

Dept.	No.		Hrs.	Grade
CMG	107	Construction Document Interpretation	3	_____
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	_____
IAI Social & Behavioral Science Elective			<u>3</u>	_____
			18	

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:

SECOND YEAR – SPRING SEMESTER

Dept.	No.		Hrs.	Grade
HAC	142	Commercial Refrigeration	4	_____
HAC	207	Advanced Controls and Circuitry	3	_____
HAC	224	Geothermal Systems	3	_____
HAC	279	ICE Testing	2	_____
IAI Physical/Life Science OR			3	_____
IAI Humanities/Fine Arts Elective				
COM	115	Speech OR COM 116 Interpersonal	<u>3</u>	_____
			18	

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
- Tinnners Hammer
- Dividers

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

The Heating & Air Condition Program is accredited by the:

Partnership of Air Conditioning, Heating, and Refrigeration Accreditors (PAHRA)

2111 Wilson Blvd., Suite 500
Arlington, VA 22201-3001

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

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.