

**Jump Start 2.0 Associate of Applied Sciences: Technical Studies Heating, Air Conditioning, and Refrigeration**

*Postsecondary Partner: South Louisiana Community College (SLCC)*

**Overview**

The mission of this program is to provide specialized classroom instruction and practical shop experience to prepare students for employment in a variety of jobs in the field of heating, air conditioning, and refrigeration. The Heating, Air Conditioning & Refrigeration Program provides individuals with the technical knowledge and skills to install, service, repair, and maintain equipment used in residential heating, air conditioning and refrigeration systems

Graduates of our Heating, Air Conditioning, and Refrigeration program are able to:

- Demonstrate knowledge of the refrigeration cycle including safety procedures and testing requirements for temperature/pressure relationships.
- Explain the physics of heat and how it applies to the air conditioning and refrigeration field.
- Demonstrate knowledge of troubleshooting and testing air conditioning components, systems, and accessories, including the sequence of operation and air flow.
- Demonstrate knowledge of heating and air conditioning and refrigeration controls, including wiring configurations and technical components for optimum performance.

**Capstone Credentials**

<b>Regional (Emerging)</b>	<b>Basic</b>	<b>Advanced</b>	<b>Fast Forward Advanced Plus</b>
-Career and Technical Certificate: HVAC -Carpenter International Training Fund (CITF) Career Connections: Pre-Apprentice Core Skills	-EPA Section 608 Certification	-Technical Diploma: HVAC -EPA Section 608 Certification AND Air Conditioning, Electrical, OR Heat Employment Ready	-Associate of Applied Sciences: Technical Studies HVAC

*\*Core Academic Course*

*\*\*Jump Start CTE Course*

<b>Grade 9</b>	
<b>Semester 1</b>	<b>Semester 2</b>
*English I 120331	**Intro to Bus Comp Apps 040401 or Business Computer Applications 040400
**Workplace Safety 311923 or Intro to Computational Thinking 061141 or Intro to Computational Thinking (LSU Partnership) 061140 or CDF Qualifying Pre-Apprenticeship I 080230	*Algebra I 160321
*Physical Science 150802 or Environmental Science 150310	**General Technology Education (Introduction to Skilled Crafts) 110010 or Jobs for America's Graduates 1 042010 or Agriscience I 010301

*Physical Education I 190105	*½ Physical Education II 190106 ½ Health Education 190500
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Grade 10	
Semester 1	Semester 2
*English II 120332	**Jobs for America's Graduates 2 042020 or Jobs for America's Graduates 3 042030
*Algebra II 160322	*Business Math 040307 or Financial Literacy 160345
*Civics 220501/220504	*U.S. History 220403
**AgrisScience II 010302 or or Jobs for America's Graduates II 042020 or Introduction to Remote Controlled Vehicle Technologies 110795	*Biology 150301

*Additional and/or equivalent TOPS core aligned courses can be found in Bulletin 741.*

Grade 11			
Semester 1		Semester 2	
Postsecondary Course	LDOE Course/Code	Postsecondary Course	LDOE Course/Code
Seminar in First-Year Student Experience SFSE 1003	DE Seminar in First-Year Student Experience 890202	*College Algebra MATH 1105	*Algebra III: DE-CMAT 1213 College Algebra 160500
*Rhetoric & Composition ENG 1010	*English III: DE-CENL 1013 English Composition I 120601	*Environmental Science ENSC 1000	*Environmental Science: DE-CEVS 1103 Environmental Science 150914
*American National Government POLI 1100	*US Government: DE CPOL-2013 Intro to American Government 220514	**Introduction to HACR HCAR 1002	**DE Air Conditioning/Refrigeration I 310100
**Principles of Refrigeration HACR 1106	**DE Air Conditioning/Refrigeration II-310105	**Electric Motors HACR 1303	**TBD
**Electrical Fundamentals HACR 1206	**TBD	**Applied Electricity and Troubleshooting HACR 1313	**TBD

Grade 12			
Semester 1		Semester 2	
Postsecondary Course	LDOE Course/Code	Postsecondary Course	LDOE Course/Code
*Introduction to Fiction ENG 2055 or British Literature ENG 2020	*English IV: DE CENL-2303 Introduction to Fiction 120614 or CENL-2103 British Literature I 120608	**Domestic Refrigeration HACR 1413	**TBD

**Residential Central Air Conditioning I HACR 1604	**TBD	**Room Air Conditioning HACR 1503	**TBD
**Residential System Design HACR 2202	**TBD	**Residential Central Air Conditioning II HACR 2104	**TBD
**Residential Heating HACR 2306	**TBD	*Mathematics for Workforce Occupations WFMA 1003	*DE Technical Math 165010

*This pathway framework is an outline of how the approved courses can be implemented. Schools may opt to rearrange the order of course sequencing in order to meet local scheduling requirements. Additionally, Fast Forward pathways are dynamic and the Jump Start Review Panel will consider course equivalents on an as needed basis.*