



# AIR CONDITIONING AND REFRIGERATION

## Program Description & Curriculum

### About the Program

The purpose 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 Air Conditioning and Refrigeration program prepares individuals to install, diagnose, repair, and maintain the operating condition of domestic, residential, and commercial heating air conditioning, and refrigeration systems.

### Degrees/Certificates

Technical Diploma (TD)  
 Certificate of Technical Studies (CTS)  
 Technical Competency Area (TCA)

*Available degrees and certificates may vary at each campus. Check with your local campus for more information.*

**CIP 470201**

Air Conditioning and Refrigeration CURRICULUM				
Course #	Course Title	Lecture/ Lab Hours	Credit Hours	Clock Hours
HACR 1150	HVAC Introduction	1/2	3	100
HACR 1160	Principles of Refrigeration I	1/2	3	115
HACR 1170	Principles of Refrigeration II	1/2	3	115
HACR 1180	Principles of Refrigeration III	1/2	3	120
<i>Successful completion of HACR1150, HACR1160, HACR1170, &amp; HACR1180 or successful completion of HACR1210, HACR1220, HACR1230, &amp; HACR1240 – student earns:</i>			<b>12</b>	<b>450</b>
<b>TCA – HVAC Helper I</b>				
HACR 1210	Electrical Fundamentals	1/2	3	100
HACR 1220	Electrical Components	1/2	3	115
HACR 1230	Electric Motors	1/2	3	115
HACR 1240	Applied Electricity and Troubleshooting	1/2	3	120
<i>Successful completion of HACR1150, HACR1160, HACR1170, &amp; HACR1180 and successful completion of HACR1210, HACR1220, HACR1230, &amp; HACR1240 – student earns:</i>			<b>24</b>	<b>900</b>
<b>CTS – HVAC Helper II</b>				
HACR 1410	Domestic Refrigeration	1/1	2	75
HACR 1420	Room Air Conditioners	1/1	2	75
<i>Successful completion of above eight courses – student earns:</i>			<b>28</b>	<b>1050</b>
<b>CTS - Domestic A/C &amp; Refrigeration Technician</b>				
HACR 2510	Residential Central Air Conditioning I	1/2	3	95
HACR 2520	Residential Central Air Conditioning II	1/1	2	95
HACR 2530	Residential System Design	1/1	2	75
HACR 2540	Residential Heating I	1/2	3	115
HACR 2550	Residential Heating II	1/2	3	115
HACR 2560	Residential Heat Pumps	1/1	2	75
JOBS 2450	Job Seeking Skills	2/0	2	75
<i>Successful completion of TCA Helper I, CTS Helper II, &amp; CTS Domestic A/C Refrigeration Technician and in addition, successful completion of above seven courses – student earns:</i>			<b>45</b>	<b>1695</b>
<b>TD - A/C &amp; Refrigeration Technology</b>				
Course #	Course Title	Lecture/ Lab Hours	Credit Hours	Clock Hours
<b>Optional Electives:</b>				
SOLR 1000	Solar Fundamentals	3/0	3	45
SOLR 1010	PV Solar Applications	1/2	3	75
SOLR 1020	Industrial Solar Applications	1/2	3	75
SOLR 1030	Solar Thermal Applications	1/2	3	75

HACR 2810	Commercial Air Conditioning I	2/4	6	210
HACR 2820	Commercial Air Conditioning Controls	3/4	7	210
HACR 2830	Commercial Air Conditioning II	2/4	6	180
<i>The following courses may be substituted for the above course requirements with approval from South Central Louisiana Technical College's Chief Academic Officer.</i>				
SPPR 2991	Special Projects I	0/1	1	30
SPPR 2993	Special Projects II	0/2	2	60
SPPR 2995	Special Projects III	0/3	3	90
SPPR 2996	Special Projects IV	3/0	3	45
SPPR 2998	Special Projects V	1/0	1	15
SPPR 2997	Practicum	0/3	3	135
SPPR 2999	Cooperative Education	0/3	3	135

Revised: February 21, 2013