<table>
<thead>
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</thead>
<tbody>
<tr>
<td>3. Program:</td>
<td>Air Conditioning and Refrigeration Program</td>
<td>4. Exit Points:</td>
<td>TCA, CTS, TD, and AAS</td>
</tr>
</tbody>
</table>

**5. College Mission & Vision:**

Mission: Northshore Technical Community College is committed to providing quality workforce training and transfer opportunities by awarding associate degrees, technical diplomas and certificates to students seeking a competitive edge in today’s global economy.

Vision: In keeping with the vision of the Louisiana Community and Technical College System, the Northshore Technical Community College:

- Produces knowledgeable, skilled and confident citizens ready for the future, ready for the workplace and ready to continue learning.
- Delivers rapid, flexible and innovative solutions to changing workforce needs.

**6. Unit Purpose/Mission Statement:**

The mission of the Air Conditioning and Refrigeration Program is to provide specialized classroom instruction and practical shop experience to prepare individuals for employment as entry-level air conditioning and refrigeration technician.

Students demonstrate competency in each of the following areas:

1. Evaluate refrigerant pressure and temperatures in an air conditioning system.
2. Use a schematic to troubleshoot an electrical system.
3. Measure the performance of a residential air conditioning system.
4. Check a residential heating system.
5. Adjust a commercial air conditioning unit.
Evaluate refrigerant pressure and temperatures in an air conditioning system.

<table>
<thead>
<tr>
<th>(B) Measurable Outcomes</th>
<th>(C) Assessment Method</th>
<th>(D) D/I</th>
<th>(E) Who Conducts</th>
<th>(F) When Assessed</th>
<th>(G) Findings</th>
<th>(H) Use of Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>At least 70% of Air Conditioning and Refrigeration students will demonstrate how to use a gage manifold to evaluate refrigerant pressures.</td>
<td>Performance Evaluation and Rubric (Exhibit 1)</td>
<td>D</td>
<td>Instructor</td>
<td>HACR 1180 Fall</td>
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<tr>
<td>At least 70% of Air Conditioning and Refrigeration students will use a digital thermometer to determine proper temperature differentials.</td>
<td>Performance Evaluation and Rubric (Exhibit 2)</td>
<td>D</td>
<td>Instructor</td>
<td>HACR 1180 Fall</td>
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<tr>
<td>(A) Unit Goal #2</td>
<td>Troubleshoot problems with Heating, Ventilation, and Air Conditioning units and Refrigeration units.</td>
<td></td>
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<tr>
<td>At least 70% of Air Conditioning and Refrigeration students will demonstrate a use of the schematic to troubleshoot an electrical system.</td>
<td>Performance Evaluation and Rubric (Exhibit 3)</td>
<td>D</td>
<td>Instructor</td>
<td>HACR 1240 Spring</td>
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<tr>
<td>At least 70% of Air Conditioning and Refrigeration students will demonstrate the use of an electric meter for troubleshooting an electrical system.</td>
<td>Performance Evaluation and Rubric (Exhibit 4)</td>
<td>D</td>
<td>Instructor</td>
<td>HACR 1240 Spring</td>
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</tbody>
</table>
(A) Unit Goal #3  
Measure the performance of a residential air conditioning system.

<table>
<thead>
<tr>
<th>(B) Measurable Outcomes</th>
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<th>(D) D/I</th>
<th>(E) Who Conducts</th>
<th>(F) When Assessed</th>
<th>(G) Findings</th>
<th>(H) Use of Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>At least 70% of Air Conditioning and Refrigeration students will determine if a residential air conditioning system has proper superheat.</td>
<td>Performance Evaluation and Rubric (Exhibit 5)</td>
<td>D</td>
<td>Instructor</td>
<td>HACR 2520 Spring</td>
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<tr>
<td>At least 70% of Air Conditioning and Refrigeration students will determine if a residential air conditioning system has proper evaporator split.</td>
<td>Performance Evaluation and Rubric (Exhibit 6)</td>
<td>D</td>
<td>Instructor</td>
<td>HACR 2520 Spring</td>
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</tbody>
</table>
## (A) Unit Goal #4
Check a Residential Heating System.

<table>
<thead>
<tr>
<th>(B) Measurable Outcomes</th>
<th>(C) Assessment Method</th>
<th>(D) D/I</th>
<th>(E) Who Conducts</th>
<th>(F) When Assessed</th>
<th>(G) Findings</th>
<th>(H) Use of Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>At least 70% of Air Conditioning and Refrigeration students will be able to check the electrically check an electric furnace</td>
<td>Performance Evaluation and Rubric (Exhibit 7)</td>
<td>D</td>
<td>Instructor</td>
<td>HACR 2540 Fall</td>
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<tr>
<td>At least 70% of Air Conditioning and Refrigeration students will be able to check the airflow of an electric furnace</td>
<td>Performance Evaluation and Rubric (Exhibit 8)</td>
<td>D</td>
<td>Instructor</td>
<td>HACR 2540 Fall</td>
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</tbody>
</table>
### (A) Unit Goal #5
Adjust a Commercial Air Conditioning Unit.

<table>
<thead>
<tr>
<th>Year 1</th>
<th>Year 2</th>
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<tbody>
<tr>
<td>At least 70% of Air Conditioning and Refrigeration students will be able to check the belt on a belt driven air handler.</td>
<td>Performance Evaluation and Rubric (Exhibit 9)</td>
</tr>
<tr>
<td>At least 70% of Air Conditioning and Refrigeration students will be able to check a chill water valve pneumatic pressure.</td>
<td>Performance Evaluation and Rubric (Exhibit 10)</td>
</tr>
</tbody>
</table>