HEATING, VENTILATION, AIR CONDITIONING & REFRIGERATION (HVAC/R)-(MODIFIED)

In addition to applying to Palm Beach State College, declaring the appropriate Palm Beach State award program code

**Postsecondary Adult Vocational Certificate in:**

<table>
<thead>
<tr>
<th>Postsecondary Adult Vocational Certificate in:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heating, Ventilation, Air Conditioning &amp; Refrigeration (PSAV 5267)</td>
</tr>
</tbody>
</table>

and completing specific high school CTE courses with a grade of C+ (2.5) or higher, the following assessment will be made for the awarded courses below:

**ACR0430 Indoor Air Quality for Air Conditioning** (120 clock hours)

*Course Description:* This course provides instruction in the properties of air, use of pressure enthalpy charts and standards for and ways to measure indoor air quality.

*Course Learning Outcomes* (These topics may be included in the written and practical challenge exams):
- Determine the properties of air.
- Use a pressure enthalpy chart to diagram refrigerant cycles.
- Explain the standards for and ways to measure indoor-air quality.

**Assessment** - Written and/or practical exam to determine level of student safety, proficiency, and placement to complete remaining courses in program. **Written challenge exams in any College Testing Center. Practical exam conducted on LW campus**

**ACR0501 Introduction to HVAC/R Principles** (120 clock hours)

*Course Description:* This course provides lecture, demonstration and hands-on practice in introductory air conditioning, refrigeration and heating concepts and techniques including major components of the refrigeration cycle. History of the trade, current trends and practices are discussed. Personal and industrial safety in the use of tools and handling of materials is emphasized in laboratory activities.

*Course Learning Outcomes* (Challenge Exams may cover these topics):
- Identify safe working conditions and follow safety practices.
- Describe the history and define concepts of heating, air-conditioning, and refrigeration.
- Identify, use, and maintain the hand tools and tool accessories used in the heating, air-conditioning, and refrigeration industry.
- Demonstrate an understanding of matter and heat behavior.
- Demonstrate a working knowledge of fluids, pressures, refrigerants, and related codes.

**Assessment** - Written and/or practical exam to determine level of student safety, proficiency, and placement to complete remaining courses in program. **Written challenge exams in any College Testing Center. Practical exam conducted on LW campus**

**ACR0510 HVAC/R Tools and Component Fabrication** (120 clock hours)

*Course Description:* This course provides lecture, demonstration and hands-on practice in the proper use of tools and measuring techniques in the trade. Students will identify tubing types, pipe fitting, bends and assembling techniques. Students will solder, braze, fabricate and leak test piping, tubes and

When student completes the assessment process they should return to the contact person for the Career Pathway Agreement being followed to finish the credit award process.
fittings. Also provided is instruction in oral and written communication, research, and employability skills. Entrepreneurship is discussed.

**Course Learning Outcomes:** (Challenge Exams may cover these topics)

- Fabricate and service the piping, tubing, and fittings used in the heating, air-conditioning, and refrigeration industry.
- Demonstrate a working knowledge of heating, air-conditioning, and refrigeration system components and accessories.
- Apply appropriate communication and computer skills.
- Demonstrate an understanding of entrepreneurship.
- Demonstrate employability skills.

**Assessment** - Written and/or practical exam to determine level of student safety, proficiency, and placement to complete remaining courses in program. **Written challenge exams in any College Testing Center. Practical exam conducted on LW campus**

The challenge exam content comes from the primary HVACR program text “**REFRIGERATION AND AIR CONDITIONING TECHNOLOGY**, 6TH AND 7TH EDITIONS, WHITMAN, CENGAGE PUBLISHING.

Contact Information Position/Program column includes assistance provided in parentheses. *Ex. (Testing Center):*

<table>
<thead>
<tr>
<th>Title</th>
<th>Name</th>
<th>Phone</th>
<th>Campus</th>
<th>Room</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Associate Dean, Academic Affairs</strong> (Trade &amp; Industry) HVAC, Machining, Welding, Auto Service Technology, Diesel Technology, Cosmetology, Nails, Facial <strong>(ETI1933 D Prior Learning Form)</strong></td>
<td>Kennedy, Eric</td>
<td>868-3540</td>
<td>LW</td>
<td>60 / ETA-142.1</td>
</tr>
<tr>
<td><strong>Program Director</strong>-HVAC, Machining, Welding (PSAV) <strong>(ACR0430, ACR0501, ACR0510- Written &amp; Practical Challenge Exams)</strong></td>
<td>Reeder, Richard/Horowitz, Kathleen</td>
<td>868-3547</td>
<td>LW</td>
<td>60 / ETA-106</td>
</tr>
</tbody>
</table>

Attach Practical Exam Study Sheets.

When student completes the assessment process they should return to the contact person for the Career Pathway Agreement being followed to finish the credit award process.