Withlacoochee Technical College
2019-2020 Syllabus
HEATING, VENTILATION, AIR-CONDITIONING/REFRIGERATION
(HVAC/R)

Program Instructor: Michael Cambo
Phone: (352) 726-2430 Ext. 4339
Email: CamboM@citrusschools.org

Program Length:

This program is 1350 hours with the first 4 courses being 250 hours each and the final course being 350 hours. Students need to complete each course within the allotted time frame, otherwise various areas could be affected such as Financial Aid.

Program Description:

This program focuses on the understanding of the heating, air-conditioning, refrigeration and ventilation industry, and demonstrates elements of the industry such as repairing equipment, time management, invoicing, technical and production skills, the underlying principles of technology, labor issues, community issues, and health, safety, and environmental issues.

Progress:

The class will work through Learning Guides which incorporate both classroom bookwork and hands-on activities that are completed in the lab area. Progress is tracked on a wall mounted Pacing Chart which all students maintain weekly. IT IS IMPERATIVE TO STAY ON PACE, AS THIS HAS A BIG IMPACT ON FINANCIAL AID.

All standards must be met to complete the program. Students do not progress in this program at the same pace. There are minimum pacing requirements in order to complete this program on time and prepare for the certification exams.

Certifications:

HVAC Excellence Employment Ready: Heat Pumps, Air Conditioning, and Electrical Theory
EPA 608
OSHA 10 (optional)
NATE ICE (optional)
Accreditation:

This program is accredited by HVAC Excellence.

Grade Scale:

- 100 – 90  A
- 89 – 80  B
- 79 – 70  C
- 69 – 60  D
- Below 60  F

How You Are Evaluated:

You will be receiving a grade on your Learning Guides, Attendance, and Employability Skills. These culminate to make up your total grade.

**NOTE: ATTENDANCE IS 30% OF YOUR OVERALL GRADE AND IS USUALLY THE REASON STUDENTS GET A LOW GRADE. BEING HERE, MUCH LIKE SHOWING UP TO WORK, IS HIGHLY IMPERATIVE!! PLEASE CONSULT THE WTC STUDENT HANDBOOK.**

Florida Department of Education Occupational Completion Points:

<table>
<thead>
<tr>
<th>OCP</th>
<th>Course Number</th>
<th>Course Title</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>ACR0000</td>
<td>Introduction to HVAC/R</td>
<td>250 Hours</td>
</tr>
<tr>
<td>B</td>
<td>ACR0001</td>
<td>HVAC/R Fundamentals</td>
<td>250 Hours</td>
</tr>
<tr>
<td>C</td>
<td>ACR0012</td>
<td>HVAC/R Service Practices</td>
<td>250 Hours</td>
</tr>
<tr>
<td>D</td>
<td>ACR0013</td>
<td>HVAC/R Intermediate Service Practices</td>
<td>250 Hours</td>
</tr>
<tr>
<td>E</td>
<td>ACR0044</td>
<td>HVAC/R Advanced Service Practices (formerly ‘Air-Conditioning, Refrigeration and Heating Technician’)</td>
<td>350 Hours</td>
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<tr>
<td></td>
<td>OR</td>
<td>OR</td>
<td>OR</td>
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<tr>
<td></td>
<td>ACR0045</td>
<td>HVAC/R Advanced Commercial and Industrial Service Practices (formerly ‘Refrigeration Mechanic’)</td>
<td>350 Hours</td>
</tr>
</tbody>
</table>
**Physical Requirements:**

In the program, much like the trade, you will be required to stand for long periods, kneel down to ground level, be in direct sunlight on concrete for hours, be inside freezing boxes, need to exert yourself when lifting items weighing 70-80 pounds, carry ladders, use wrenches, etc.

You will need to have a good back and be able to handle hot working conditions in order to succeed in this trade.

**Safety:**

Safety is taken very seriously and there are a number of ways to get hurt if you don’t follow proper safety precautions. Safety glasses must be worn while in the lab area or outside. Long pants are recommended as we braze and solder. Gloves are optional, and thought should be given to when and where you wear them.

**Discipline:**

Refer to the WTC Student Handbook for discipline information. Program specific rules and expectations will be discussed in class.

**Attendance:**

Refer to the WTC Student Handbook for attendance information.

**Dress Code:**

Jeans and short-sleeved shirts are generally accepted in this class, and a jacket will be needed further along in the program for working on sub-zero temp equipment. Shorts are not recommended due to working in extreme temperatures. Closed-toed shoes or boots are required; flip flops are never allowed. See WTC Student Handbook for more details.

**Housekeeping Tasks:**

At the end of every day, we have a designated clean up time. Everyone will participate in this as having a clean, organized classroom and shop will make it more satisfying to work. Not helping out will result in a “0” for your Professionalism grade for that day.
Recommended Resources and Websites:

There are a few apps that you will need to download on your phone when in the program. These are small and simple, but crucial to taking proper readings on equipment. We have a small library of various reference books that you will be using as well for researching information.

Access the program Curriculum Frameworks bit.ly/2M4Pgl t

Unique to Program:

You will be required to have a driver’s license in this trade in order to drive a service truck. A safe driving record is important to have, and most commercial insurance companies require a clean record in order to employ someone. A lot of companies now also require drug screening and testing. While here, you will earn an EPA card that is used in the trade. You cannot gain employment without it, and it allows you to purchase and work with refrigerants. You will also be required to earn 3 Industry Certifications while here, and these make gainful employment much easier.