

## R.E. Michel Company Winter 2019

Please note that this is a revised schedule from versions issued earlier.

### **Air Conditioning Fundamentals and Procedures**

#### **2-DAY CLASSES INCLUDES R-410A PROCEDURES**

This class will cover the fundamentals of the installation procedures of the air conditioning system and heat pump. The proper line set selection, recovery of refrigerant, evacuations, and the different charging methods, equipment selection, and placement. Also covered will be the differences in evaporator coils, and the different coil configurations. There will be some troubleshooting issues covered. This class is for the new technician and is also a great refresher for the veteran who might benefit from a review of the refrigeration cycle. These are two-day courses. Price of two-day class is \$198.00. Minimum of 6 technicians to hold class.

*No classes scheduled at this time*

### **Air Conditioning Service & Troubleshooting (Hands-On)**

This is a two-day hands-on class designed for the service technician that has some knowledge of the installation procedures of the air conditioning system. The students will learn to observe the equipment and learn the sequence of operation. This class will also include brief classroom discussion but mostly hands on training. The students will use recovery machines to remove refrigerant from the air-conditioning equipment. Evacuations will also be performed using proper procedures. There will be different methods of charging. The students will also learn to service the equipment. Upon completion of this class the students should be able to service, maintain, and troubleshoot the air conditioning system. Price of class is \$250.00. Maximum class size is 6 techs.

*No classes scheduled at this time*

### **Air Conditioning Install**

This one-day air conditioning class will cover the servicing of the system along with proper charging methods for the different types of systems and component testing and replacement. Price of class is \$99.00. Minimum of 6 technicians required to hold class.

March 11, 2019 – Glen Burnie, MD

### **Basic Electricity**

Basic Electricity is a one-day class where technicians will learn about series circuits, parallel circuits, transformers, switches and control circuit wiring. Discussions on how electricity works, how it is made and alternating current and direct current will also be held. Price of class is \$99.00. Minimum of 6 technicians required to hold class

January 14, 2019 – Glen Burnie, MD

February 11, 2019 – Glen Burnie, MD

## **CFC Certification**

This class is EPA approved, and is designed to help the student pass the CFC Certification Test for Type I (Small Appliances), Type II (High Pressure), Type III (Low Pressure). Passing all four sections will certify the technician as Universal. The course includes a CFC Study guide which will be provided along with approximately four hours of material review with a qualified instructor. The test has a two hour time limit. Current cost of 2018 and 2019 classes: \$199.00, test only-\$99.00.

January 17, 2019 – Glen Burnie, MD  
February 14, 2019 – Glen Burnie, MD  
March 12, 2019 – Glen Burnie, MD

## **Gas I, Fundamentals**

This class is the first in a series of two classes focusing on the fundamentals of the gas combustion process, flame sensing, ignition and gas controls. Some safety issues will be reviewed as pertaining to proper installation and service procedures. In addition, carbon monoxide will be covered to help ensure mechanics are aware of the concerns with its production. This is a one-day course. Price of class is \$99.00. Minimum of 8 technicians required to hold class.

January 24, 2019 – Glen Burnie, MD  
February 21, 2019 – Glen Burnie, MD

## **Gas II, Service & Controls**

This class is the second in the series of gas training. There will be a brief review of the basics of gas. Time will then focus on the controls side of the gas equipment. All types of ignition and flame sensing configurations will be explored. Time will be spent on the solid-state control boards and modules that are appearing on residential and light commercial equipment. This class is a one-day course. Price of class is \$99.00. Minimum of 8 technicians required to hold class.

January 25, 2019 – Glen Burnie, MD  
February 22, 2019 – Glen Burnie, MD

## **Gas Combustion & Troubleshooting -- (New 2-Day Format)**

Originally a part of the 3-day Oil & Gas Combustion, Gas has been split off into a two-day class of its own. Day one covers gas combustion and the installation of the gas furnace and proper setup of the furnace. Gas troubleshooting will be covered on Day 2. Cost of class is \$99.00 per technician per day.

February 26-27, 2019 – Glen Burnie, MD

## **Gas Furnace Install**

In this one day class we will go over the proper installation of the gas furnace, setting gas pressures, and blower speed for heating and cooling. We will go over the high and low voltage wiring and proper set up of the furnace.

February 4, 2019 – Glen Burnie, MD

March 6, 2019 – Glen Burnie, MD

## **Heat Pump Service**

In this one-day Heat Pump Service Class coverage will include the servicing, proper charging, testing and setup of the system in addition to troubleshooting and component replacing such as compressor testing and replacement. The class will be approximately 7 hours. Price of class is \$99.00. Minimum of 8 technicians required to hold class

January 15, 2019 - Glen Burnie, MD

February 12, 2019 – Glen Burnie, MD

March 14, 2019 – Glen Burnie, MD

## **Oil I, Fundamentals**

This is the first in a series of two classes. This session will focus on the fundamentals of the oil burner and understanding the combustion process. The students will learn the necessity of proper burner set up and burner application. Service issues and troubleshooting the combustion side of the system will be discussed as we progress. We will also discuss venting issues and the concerns that may come with equipment replacement. Price of class is \$99.00. Minimum of 8 technicians required to hold class

January 21, 2019 – Glen Burnie, MD

February 18, 2019 – Glen Burnie, MD

## **Oil II, Controls**

This is the second in a series of two classes. In this session the focus will be on oil burner and related system controls. We will begin by reviewing some control fundamentals in order to create an understanding of how controls in general work. There will be a demonstration and opportunity for hands on activities in the class. The main objective of this course is to create an understanding of controls for the burner technician. Price of class is \$99.00. Minimum of 8 technicians required to hold class

January 22, 2019 – Glen Burnie, MD

February 19, 2019 – Glen Burnie, MD

## **Oil Combustion and Troubleshooting -- (New 2-Day Format)**

Originally a part of the 3-day class but has been split off to 2 days, with day 1 covering oil combustion installation, set-up, nozzle selection and troubleshooting on the 2<sup>nd</sup> day. Cost for the class is \$99 per technician per day.

February 7-8, 2019 – Glen Burnie, MD

## **Oil Furnace Install**

In this one day class the proper installation of the Oil Furnace will be discussed. Including proper set-up of the Oil Burner, oil lines, how to set up the blower for heating and cooling. We will also go over low voltage wiring and high voltage wiring and furnace start up.

February 5, 2019 – Glen Burnie, MD

March 7, 2019 – Glen Burnie, MD

## **R-410a Safety Guidelines and Procedures (Includes A/C Charging)**

Discussions in this class will include the R22 equipment phase-out timeline along with covering terms and definitions associated with the traditional refrigerants and the temporary and permanent alternatives. Technical guidelines developed by the manufacturers for application and the use of 410a in the OEM equipment are covered along with system parts and components unique to 410a units. Finally, discussions of the safety ratings for the refrigerant handling issues, storage, transport and recovery will be held. Contact local branch for class times. Price of each class is \$25.00 or \$49.00 for both.

January 18, 2019 – Glen Burnie, MD

March 4, 2019 – Glen Burnie, MD

## FAQ for CFC Certification

### **Q) Where are CFC classes held?**

A) Currently, most of our locally scheduled CFC classes are held in our Glen Burnie Training Facility located at the address below but occasionally CFC classes are held in other locations such as Richmond, VA, Hartford, Ct., Watertown, NY., Midlothian, VA., Syracuse, NY and Landover, Md

Hartford, Ct  
295 Murphy Road  
860-278-7676

Watertown, NY  
23018 Murrock Circle  
315-779-1577

Glen Burnie, MD  
1 Skywater Way  
410-553-3835 / 410-553-3816

Landover, MD  
1900 South Club Road  
301-322-4700

Richmond, VA  
2400 Magnolia Road  
804-643-5300

Syracuse, NY  
1128 East Washington Street  
315-474-6007

Midlothian, VA  
601 Johnston Willis Dr  
804-897-0100

### **Q) What are the times of the CFC class?**

A) All CFC Classes begin at 8am and normally conclude after the exam is given around 4pm.

### **Q) What are to costs for the CFC classes?**

A) Costs: (Current for 2019)

\$199.00 includes CFC Study Guide, review and examination

\$ 99.00 includes review and examination. No CFC Study Guide is included.

### **Q) What material is required to bring to class?**

A) CFC Study Guide

B) Photo-ID

C) Two (2) number 2 pencils

D) CFC Certification Coupon (normally attached to Study Guide and required for attendance) or Invoice for class

### **Q) Does the CFC certification cover Section 609 (Automotive)?**

A) No. The certification we teach is Section 608 which is for appliances. Section 609 should be certified through an authorized automotive source.

### **Q) Technicians requiring a duplicate of their CFC card.**

A) Although there are many agencies who offer or proctor the CFC exam the R.E. Michel Company has aligned with REPA as the main vendor for CFC Certification. Mainstream is another vendor we currently deal with for certification in areas where REPA is not available. Or may be more convenient for our customers

**Note\*\*\* Most agencies will issue duplicate CFC cards for a nominal fee.**

R.E.P.A. (V# 180286)  
348 Thompson Road  
Suite 303  
Stevensville, Md 21666

ESCO Institute  
P.O. Box 521  
Mount Prospect, IL

Mainstream Engineering  
200 Yellow Place  
Rockledge, FL 32955

Julie Brinster  
[repatest.com](http://repatest.com)

Customer Service  
[escoinst.com](http://escoinst.com)

800-866-3550  
[epatest.com](http://epatest.com)

**Q) Does R.E. Michel offer an alternative to attending a full-day CFC class?**

A) Mainstream is the only vendor we have assigned catalog numbers to. These two parts can be ordered from any R.E. Michel location. If you require a self study guide and an audio CD please order catalog number 8G9994B. When you are ready to take the exam please contact your local branch to order the catalog number 8G9994A for the test only. This is a self study course to prepare our customers to take the CFC test. Please contact your local REM branch for additional information and to set up a test date.

**Q) Technicians have not received their results after taking a test:**

A) Results normally take 2-3 weeks depending on the time of the season.

**Q) What does the test consist of?**

A) The CFC exam consists of (1) section for each level offered, Core, Type I, Type II and Type III. A passing grade in all (4) sections qualifies the technician with a Universal Certification. Each portion of the test include (25) multiple choice questions and requires correct scores on a minimum of (18) questions for a passing grade.

**Q) What happens if I do not pass all portions of the exam?**

A) It is not necessary to re-take any portion that you have already. The instructor will walk you through the steps required to re-take any portion you may need.

**Q) Do I lose my registration fee if I cannot make a class?**

A) Absolutely not. If you feel you are not ready to take the class and require more personal study time, please contact us and we will move or re-schedule your date to another up-coming class.

**Q) What dates are the future CFC classes scheduled for?**

A) While most areas of the Company offer CFC testing the majority of the classes is held in the Glen Burnie Training Facility. At the beginning of each year we set the Glen Burnie CFC Certification classes for the entire year. We also set a CFC class for Richmond & Midlothian approximately every 90 days. Please refer to the course schedule for the complete list of CFC dates.

**Note: A CFC Certification Coupon is required to attend class. If registered for "test only" a copy of the invoice is required OR your name MUST appear on the class registration sheet.**

## **R.E. Michel Training Price Schedule 2019**

CFC Refrigerant Certification	\$199.00 (per tech) *
• (Includes CFC Study Guide, Class Review and CFC Examination)	
CFC Test Only	\$99.00
• (Does not include CFC Study Guide but does include the instructor review)	
R410a Safety Guidelines & Procedures	\$25.00 (3 ½ hour sessions)
A/C Charging (1/2 Day)	\$25.00
• <i>R410a Safety Guidelines and A/C Charging - \$49.00</i>	
One day classes (Gas, Oil, AC, HP, BE)	\$99.00
AC/HP Service & Troubleshooting	\$250.00 (per tech) 2-day hands on
AC/HP Fundamentals	\$198.00 (per tech) 2-day classroom

### **Training Class Notes:**

- 1) All classes begin at 8am but please check with your local branch for official starting times and/or additional information.
- 2) **Minimum** participation for classes is 8 technicians. Please check with local branch to make sure the class is still being held.
- 3) **Maximum** participation for 3-Day AC Service and Troubleshooting, Gas & Oil Combustion classes is 10 technicians. A/C Service classes will include a Technician Refrigerant Journal and training on how to use.
- 4) Custom training is available. Contact your local R.E. Michel branch or Sales Representative.
- 5) CFC Results may take up to 3 weeks to receive results.
- 6) Recommended two week registration prior to class date for CFC Certification.
- 7) All participants in the “hands-on” training classes that utilize the R.E. Michel Equipment Lab **MUST** sign a Registration Form and Release prior to the beginning of the class.
- 8) Prices are subject to change without notice
- 9) For Nate Review and Testing please contact your local R.E Michel branch or Sales Representative for costs, times and locations.

**The R.E. Michel Co., reserves the right to cancel / reschedule classes due to lack of technician registrations, instructor illness, hazardous weather conditions or other causes beyond our control.**

## DIRECTIONS TO SKYWATER (GLEN BURNIE, MD) TRAINING FACILITY

R.E. Michel Co., Inc. Instructor: Floyd Wilson  
1 Sky Water Way Phone Numbers: 410-553-3835 and 410-553-2994  
Glen Burnie, Md 21060 Fax Number: 443-577-3470

### From Points North:

Take I-95 South  
Take 695 (Baltimore Beltway) East – Essex / Key Bridge (Toll Bridge)  
Take Exit 2 / 3, Route 10 South and Route 3 South  
\*\*\* See continuation of directions at bottom of page \*\*\*

### From Points South:

Take I-95 North  
Take 695 (Baltimore Beltway) East toward Glen Burnie / Key Bridge  
(*You will exit off 695 East before you go over the Key Bridge*)  
Take Exit 2, Route 10 South  
\*\*\* See continuation of directions at bottom of page \*\*\*

### From Points East:

Take the Bay Bridge (Toll) / Route 50 East  
Take Route 2 North, Ritchie Highway  
Take Route 10 North  
\*\*\* See continuation of directions at bottom of page \*\*\*

### From Points West:

Take Route 70 East  
Take 695 (Baltimore Beltway) East toward Glen Burnie / Key Bridge  
(*You will exit off 695 East before you go over the Key Bridge*)  
Take Exit 2, Route 10 South  
\*\*\* See continuation of directions at bottom of page \*\*\*

### From Points Northwest:

Take 83 South (*You will exit off 695 East before you go over the Key Bridge*) Take Exit 2, Route 10  
South  
\*\*\* See continuation of directions at bottom of page \*\*\*

**Take Exit 710 East, Ordnance Depot and make a right hand turn at the 2<sup>nd</sup> light into the Baymeadow Industrial Part. Make 1<sup>st</sup> right and follow sign for Education and Training Center Parking area.**





## CLASS REGISTRATION FORM

*One applicant per registration form*

**All applicants must be registered 2 weeks prior to date of class.**

*Please register me for the following class:*

- |   |   |
|---|---|
| <input type="checkbox"/> Air Properties & Measurement | <input type="checkbox"/> CFC Certification - Full Day Session |
| <input type="checkbox"/> Basic A/C & Service          | <input type="checkbox"/> CFC Certification -Test Only         |
| <input type="checkbox"/> Basic Electricity & Controls | <input type="checkbox"/> Manual D / Residential Duct Design   |
| <input type="checkbox"/> Basic Gas & Service          | <input type="checkbox"/> Manual J / Load Summary              |
| <input type="checkbox"/> Basic H/P & Service          | <input type="checkbox"/> Refrigerant Retrofitting             |
| <input type="checkbox"/> Basic Oil & Service          | <input type="checkbox"/> Other _____                          |

Class Date (s): \_\_\_\_\_ Class Location: \_\_\_\_\_

Name: \_\_\_\_\_

Company Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Daytime Phone: ( ) \_\_\_\_\_ Evening Phone: ( ) \_\_\_\_\_

Method of Payment:  Check No. \_\_\_\_\_  Bill Account # \_\_\_\_\_

Authorized By: \_\_\_\_\_ Title: \_\_\_\_\_



## R.E. MICHEL COMPANY INC.

*and its affiliated companies ...  
AMCO Heating, Cronin Supply and Crown Refrigeration*

FAX: 1-800-806-TECH -OR-

MAIL: ATTN: TRAINING DEPARTMENT • R.E. MICHEL COMPANY, INC.  
ONE R.E. MICHEL DRIVE • GLEN BURNIE, MD 21060