



**2018 FALL**

**TECHNICAL & SALES  
TRAINING SCHEDULE**

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# TECHNICAL & SALES TRAINING SCHEDULE

## Gas Furnaces



### Course Description:

This class will introduce the Armstrong 80% and condensing furnaces including the modulating furnace. A review of proper installation with special consideration given to vent and combustion air piping. The sequence of operation for single stage, two stage and the modulating will be discussed. Proper setup and troubleshooting will be an important part of the class. **Class includes text.**

Day	Date	Location	Time	Cost
Thursday	October 18	Rosedale	8:00 AM – 12:00 PM	No charge
Tuesday	October 23	Dulles	8:00 AM – 12:00 PM	No charge
Tuesday	October 30	Salisbury	8:00 AM – 12:00 PM	No charge



## NATE Certification Test

### This class is for testing only!

No instructions will be provided. All persons should get a study guide from UPD or from NATE well in advance of the test. The core exam and one specialty are required to receive certification. Test offered are Core, A/C Heat Pumps, Gas Furnaces. **Cost \$175 per Test – No more than two test per person.**

Day	Date	Location	Time	Cost
Thursday	September 27	Rosedale	8:00 AM – 1:00 PM	\$175 per test

## CFC Certification



Class is an overview of the proper handling of chlorofluorocarbons as required by the EPA. Study materials will be available two weeks in advance. Time will not permit all areas of the test to be covered in class, so it is recommended that the student read the study guide before coming to class. **Study guide and lunch included.**

Day	Date	Location	Time	Cost
Thursday	September 6	Salisbury	8:00 AM – 1:00 PM	\$100.00
Tuesday	September 11	Dulles	8:00 AM – 1:00 PM	\$100.00
Thursday	September 13	Rosedale	8:00 AM – 1:00 PM	\$100.00



## LG DFS08 Class



### Course Description:

This LG class will cover design considerations for the single and multi-systems. Included will be proper sizing of the system, how to calculate capacity loss based on line length and maximum length and elevation differences between the outside unit and inside AHU's. Proper installation practices will be reviewed as well as some possible problems and how to correct them.

### Class includes material and lunch.

Day	Date	Location	Time	Cost
Tuesday	December 11	Salisbury	8:00 AM – 3:00 PM	No charge
Thursday	December 13	Rosedale	8:00 AM – 3:00 PM	No charge
Tuesday	December 18	Dulles	8:00 AM – 3:00 PM	No charge

## 20 SEER A/C and Heat Pump



### Course Description:

This class is designed for certification of the 20 SEER Allied equipment. If you are interested in installing the 20 SEER equipment now is the time to register for the class! The Armstrong modulating heat pump allows for a new level of comfort for the home owner, installation, operation, repair and safety factors when working with an inverter controlled compressor. Instructor: Bobby Crosby from Allied.

### Text & lunch included.

Day	Date	Location	Time	Cost
Tuesday	September 18	Salisbury	8:00 AM – 3:00 PM	No charge
Thursday	September 20	Rosedale	8:00 AM – 3:00 PM	No charge
Tuesday	September 25	Dulles	8:00 AM – 3:00 PM	No charge



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## LG DFS04 Class



### Course Description:

This class is designed to introduce the technician to trouble shooting techniques for LG systems. Included is hands on troubleshooting practices with live LG single wall mount systems. There will also be training on the SIM 2.0.

### Class includes Lunch and Text

Day	Date	Location	Time	Cost
Thursday	October 25	Rosedale	9:00 AM – 3:00 PM	No charge
Tuesday	November 6	Dulles	9:00 AM – 3:00 PM	No charge
Tuesday	November 20	Salisbury	9:00 AM – 3:00 PM	No charge

## Heat Pump Controls and Diagnostics



### Course Description:

This class is designed for the field technician. The three types of defrost boards used by Armstrong on residential and commercial systems will be discussed. Also includes several types of defrost sensors, sequence of operation and safeties connected to the defrost controls.

Day	Date	Location	Time	Cost
Tuesday	October 2	Salisbury	8:00 AM – 12:00 PM	No charge
Thursday	October 4	Rosedale	8:00 AM – 12:00 PM	No charge
Thursday	November 1	Dulles	8:00 AM – 12:00 PM	No charge



## Commercial Package & Split Systems 2 to 25 ton

### Course Description:

This class will cover installation of both commercial and split systems. Controls systems for A/C and their gas furnaces as well as heat pump controls will be reviewed. Recommended commissioning practices and formulas to accurately adjust air flow and economizer minimum air will be presented.

### Lunch will be included.

Day	Date	Location	Time	Cost
Tuesday	November 27	Salisbury	8:00 AM – 12:00 PM	No charge
Thursday	November 29	Rosedale	8:00 AM – 12:00 PM	No charge
Tuesday	December 4	Dulles	8:00 AM – 12:00 PM	No charge

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## Basic System Design

### Course Description:

This course is structured for HVAC system designers such as mechanical engineers, design/build contractors and facilities engineers. The course covers the fundamentals of load estimating, psychrometrics, and the refrigeration cycle. Various HVAC system types will be discussed, along with different control strategies. The course is intended to present a logical progression from an accurate estimate of the cooling and heating loads to the final selection of HVAC equipment and control strategy that is optimized for the specific application. The Basic System Design course will be conducted at the United Products training center on Tuesday and Thursday evenings, beginning in October. The instructor will be Lance Neighoff, United Products application engineer, with 45 years of experience in HVAC application, design, and troubleshooting.

**Location:** UPD Baltimore Training Center, 1200 68<sup>th</sup> Street, 21237

**Cost:** \$100.00 per person (Entire Course)

**Times:** 5:00 PM - 7:00 PM Tuesdays and Thursdays

Day	Date	Class
Tuesday	October 9	#1 Psychrometric Properties of Air
Thursday	October 11	#2 Cooling and Heating Load Components
Tuesday	October 16	#3 Estimating Cooling and Heating Loads (Part 1)
Thursday	October 18	#4 Estimating Cooling and Heating Loads (Part 2)
Tuesday	October 23	#5 The Refrigeration Cycle
Thursday	October 25	#6 HVAC System Design Concepts
Tuesday	October 30	#7 Packaged Cooling and Heating Systems
Thursday	November 1	#8 Design and Application of Centrifugal Fans
Tuesday	November 6	#9 Design and Application of Heat Transfer Coils
Thursday	November 8	#10 Equipment Selection Methodology
Tuesday	November 13	#11 HVAC System Control Strategies
Thursday	November 12	#12 HVAC Zone Control Strategies

**Course materials will be provided.**

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## Communicating Thermostats and Up to 4 Zone Systems



### Course Description:

This class will look at the installation and programming of the Armstrong communicating thermostat. Included will be an overview of Armstrong's 2 to 4 zone zoning system with consideration of design, installation and adjustments to this simple but powerful system.



**Seminar is FREE – no charge.**

Day	Date	Location	Time	Cost
Tuesday	October 9	Dulles	9:00 AM – 12:00 PM	No charge
Thursday	October 11	Rosedale	9:00 AM – 12:00 PM	No charge
Tuesday	October 16	Salisbury	9:00 AM – 12:00 PM	No charge



## V and M Series

### Course Description:

This class will cover the introduction to the V and M Series and overview where each can be best applied and general principles of proper location. The overview of the installation process and discussion about the controls and troubleshooting the systems. This class would be good for sales people as well as service techs.

**Seminar is FREE – no charge.**

Day	Date	Location	Time	Cost
Thursday	November 8	Rosedale	8:00 AM – 12:00 PM	No charge
Tuesday	November 13	Salisbury	8:00 AM – 12:00 PM	No charge
Thursday	November 15	Dulles	8:00 AM – 12:00 PM	No charge



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## Registration Form

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

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

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

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

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

Phone Work: \_\_\_\_\_

Phone Home: \_\_\_\_\_

Email: \_\_\_\_\_

**I would like to register for the following classes:**

Class Description \_\_\_\_\_ Cost: \_\_\_\_\_

Class Description \_\_\_\_\_ Cost: \_\_\_\_\_

Class Description \_\_\_\_\_ Cost: \_\_\_\_\_

Class Description \_\_\_\_\_ Cost: \_\_\_\_\_

Class Description \_\_\_\_\_ Cost: \_\_\_\_\_

TOTAL \$ \_\_\_\_\_

**PLEASE REGISTER AT LEAST ONE WEEK BEFORE CLASS DATE.**

**Call Linda @ 410-866-6800 ext. 1300, Fax to: 410-866-4198**

**Credit Cards Accepted:** (Circle One) Mastercard Visa Discover

Number: \_\_\_\_\_

Expiration Date: \_\_\_\_\_ Code: \_\_\_\_\_

Signature: \_\_\_\_\_



# REGISTER ONLINE TODAY!

You can register for any of our classes online at

[www.UPDINC.com](http://www.UPDINC.com)

Account Resources – Training Schedule Tab

## 2018 FALL TECHNICAL & SALES TRAINING SCHEDULE

18/08-29

# REGISTER ONLINE TODAY!

### UNITED PRODUCTS DISTRIBUTORS INC.

#### ROSEDALE BRANCH

1200 68th Street  
Baltimore, MD 21237  
(410)-866-6800  
(888)-907-9675  
(410)-866-1048 Fax

#### SALISBURY BRANCH

201 Marvel Road  
Salisbury, MD 21801  
(410)-749-6800  
(888)-907-9675  
(410)-749-6865 Fax

#### VIRGINIA BRANCH

22725 Dulles Summit Court  
Dulles, VA 20166  
(703)-481-6800  
(888)-907-9675  
(703)-481-6855 Fax