



PENNSYLVANIA  
**PETROLEUM**  
ASSOCIATION

## TECHNICAL TRAINING CENTER

**2019**

### COURSE DATES

**March 28**

PPA Training Center  
911B South Eisenhower  
Blvd  
Middletown, PA 17057  
717-939-1781

**April 18**

Spring Hill Suites  
430 Plymouth Rd  
Plymouth Meeting, PA  
19462  
610-940-0400

**April 23**

F.W. Webb Training Center  
1665 E. Race Street  
Allentown, PA 18109  
(484) 488-3549

**9:00 am –4:00 pm**

**REGISTRATION FEE:**  
**\$160/PPATEC Member**  
**\$200/Non Member**

**REGISTER ONLINE AT:**  
<https://ppatec.com/schedule/>

## Advanced A/C & Heat Pump TROUBLESHOOTING

This course will discuss tests needed to check the operation of and find problems with air conditioning and heat pump systems. The tests will include superheat, sub-cooling, temperature rise and fall, and amp draw.

The training will also ensure units are operating at peak capacity and efficiency. Also included are ways to test air flow through the use of manometers and u-tubes. Learn to check static pressure and pressure drops and to calculate CFMs and velocity. Proper annual maintenance and leak checking are also included. Learn to take all the guesswork out of determining CFMs and airflow. This class is ideal for an experienced technician who would benefit from reinforced training this spring season.

*Lunch is provided for attendees at no additional cost.*

### Advanced A/C & Heat Pump Troubleshooting:

- Superheat
- Sub-cooling
- Temperature Drop
- Temperature Rise
- Static Pressure
- Static Pressure Drops
- Maintenance

**Our Instructor:** Ed (Eddie) Howell brings over 40 years of industry experience to the PPA technical training program. Eddie began his career working for a PA-based HVAC company for nearly two decades. He has spent the last 25 years at APR Supply which included managing their training efforts for the 30+ locations. Ed's credentials include Nortek TSA, NATE Certified in four disciplines (A/C, HP, Gas Furnace, and Oil & Gas Hydraulics), RSES Member, and local OESP Chapter member.