MEMA TECHNICAL EDUCATION CENTER

HVAC Professional Certification Program

MTEC instructors have strategically developed a 3 month long HVAC course that will prepare students to **sit for Maine State licensing exams in an extremely accelerated time frame**. For example, completion of the 6 week long *Oil Module* will eliminate 6 months of apprenticeship time required by the state for licensing! This new program will also provide students with nationally recognized EPA Certification, allowing them to preparedly seek employment in what is quietly becoming one of New England's leading workforces.

Nearly ALL Maine business and residences rely on heating and cooling systems, which means the employment opportunities are plentiful, and the possibilities limitless in the industry. Our program is concentrated, direct, hands-on, and designed to provide students the nuts and bolt knowledge that will allow them to enter the workforce with confidence.

Not to be missed! In celebration of the overwhelming response to MTEC's HVAC Program, students enrolling in the Semester class will be **awarded a onetime educational grant of $700!** This will be applied to the total tuition due, and is non transferable. The best part is - since this is a grant, not a loan, this money does not need to be repaid! This is MTEC's investment in the next generation of HVAC Professionals, and the Maine Economy.

Please review the specific course outlines below, as well as the list of required tools. To register, please remit the following form, or visit us on the web at www.MTEC4ME.com. If you have questions, please call 207-729-5298 and we will assist you in every way we can!

OVERVIEW: Oil Heat Module: February 10 – March 21, 2014

This six week, full-time intensive program has been enhanced to include concentration on the newest in high efficiency technology and equipment, in addition to the latest energy conservation practices being implemented by professionals in the field. This course is comprised of 100 hours of hands-on training in our state-of-the-art lab and computer simulated operations and 100 hours of classroom lecture and discussion. The goal of this course is to train HVAC certified professionals that are now in demand within the industry. Upon satisfactory completion of the course, the registrant will receive a Certificate of Completion from MEMA. This course, along with (6) months of on-the-job training, will qualify the registrant for the State of Maine Journeyman Oil Burner Technician's License. For more information on licensing, fees, and testing requirements, please visit: http://www.maine.gov/pfr/professionallicensing/professions/oil_solid_fuel/index.ht

COURSE TOPICS & CONTENTS:

The following textbooks for this course will be provided the first day of class: *National Oilheat Research Alliance "Oilheat Technicians Manual"* {c. 2008} NFPA 31, NFPA 211, and the *Maine State Code Book*. These texts
provide an up-to-date introduction to oil heat technology and service. The course is comprised of the following sections:

Principles, Theories & Basic Electricity – *Fuel Oil Properties, Bio Fuel, Low Sulfur Diesel, Other Fuel Sources, Oil Burners, Basic Electricity*

Components & Controls – *Ignition Systems, Motors, Fans & Couplings, Primary Controls, Limit Controls & Thermostats, Outdoor Reset Theory & Terminology*

Fuel Systems & Venting – *Tanks, Piping, Fuel Units & Oil Valves, Fuel Pumps and Oil Valves, Nozzles & Combustion Chambers, Draft & Venting, Pellet Vents, Combustion Air Zone, Combustion, Solid Fuel, Bio Mass*

Heating Systems, Conservation, Customer Relations & Codes – *Heating Systems, Heat Loss, Renewal Energy Types, Preventative Maintenance, Service Procedures, Energy Conservation, Home Energy Concepts, Pressure & Thermal Boundaries, Insulation Factors, Customer Service*

OVERVIEW: **Basic Air Conditioning w/ EPA Certification:** **March 24 - March 27, 2014**
A/C Refrigeration + Troubleshooting: **March 31 - April 4, 2014**

This 72-hour course is designed to provide hands-on training in the following areas:

Refrigerant Handling	EPA Certification
Electrical Controls & Wiring	Proper Tool Use & Care
Brazing, Flaring, and Soldering	Preventative Maintenance
Electric Motors & Compressors	Super Heat & Sub Cooling
Air Flow & Measurement	Refrigeration

The applicant *should* have skills in basic electricity prior to taking this course, as it includes extensive electrical controls training. During training, the student will receive EPA Certification and will perform all the work necessary to install and start up a basic air conditioning and refrigeration system. Once the system is operational, troubleshooting and maintenance will be performed.

OVERVIEW: Propane Basic Principles and Practices; Appliance Installation + Service; Tank Setter + Outside Piping: April 7 – May 5, 2014

These full-time intensive programs are *enhanced* versions of the National Propane Gas Association's **Certified Employee Training Program (CETP)**. Successful completion of each course, passage of the included test and submission of the related *skills assessment verification**, will earn NPGA certification. Achievement of NPGA certification is the requirement for a person to qualify for state licensing endorsements. Once certification is achieved, the initial state license and/or endorsements will be issued according to the licensing law. Under both CETP rules and state requirements, all must pass, and become certified in the course known as *Basic Principles and Practices* in order to receive certification in any other segment of CETP or qualify for any state license endorsements.

Below is a chart that outlines the state license endorsement names **(in bold)** and the CETP certifications needed to qualify for those endorsements. **Maine law requires that those who work with propane be trained and licensed to do so.**

Basic Principles and Practices			
Delivery Technician	**Appliance Connection + Service**	**Tank Setter + Outside Piping**	**Plant Operator**
2.4 Propane Delivery Operations + Cylinder Delivery **2.2** Operating a Bobtail to Deliver Propane	**4.2** Placing Vapor Distribution Systems + Appliances into Operation **4.3** Installing Appliances + Interior Vapor Distribution Systems **1.1** Maine Natural Gas Supplement **7.0** Basic Electricity	**4.1** Designing & Installing Exterior Vapor Distribution Systems **4.2** Placing Vapor Distribution Systems + Appliances into Operation **5.1** Designing & Installing Dispenser Transfer Systems	**3.5** Basic Plant Operations **3.6** Performing Railcar Product Transfers **Large Equipment** **8.0** LARGE Industrial Gas-Fired Equipment Connection + Service

*Skill Assessment Verification refers to a process that must occur from the technician's company. CETP forms are provided so the student's on the job supervisor or other qualified individual can validate that job involvement corresponds with aspects of the course subjects covered. This course includes training for some of the tasks included in the skill assessments.

Please see following pages for Tool List and Registration Forms

REGISTRATION FORM: HVAC Professional Certification Program

MEMA TECHNICAL EDUCATION CENTER
25 Greenwood Rd, Brunswick ME 04011
P. 207-729-5298 F. 207-721-9227
www.mtec4me.com

Please select your session below:

☐ **Session I:** Feb 10 – May 5, 2014

☐ **Session II:** Sept 16 – Dec 12, 2014

TUITION (Includes all books and tests)
$7,850 – Includes $700 Grant

Total Tuition Includes a $250 Non-Refundable Registration Fee (*Required To Register*)

Registration/Refund Policy

*MEMA Technical Education Center has a maximum and a minimum number of students it will serve per class. If the minimum is not achieved, all funds paid will be refunded. If the maximum number is achieved, no further registrants will be accepted. All registrations are on a first-come, first-serve basis.

***Payment in full, must be received by MEMA (5) business days prior to the first day of class for the registrant to be admitted.**

*All funds paid, except the $250 Registration Fee, can be refunded if such is requested no later than (5) business days **PRIOR** to the first day of the course. Requests for refunds made within (5) business days of the first day of the course **WILL NOT BE HONORED**.

TO REGISTER: COMPLETE SECTIONS A, B, AND C & REMIT WITH PAYMENT

A

(If you are not being sponsored by your company, provide your personal information)

Sponsoring Company *(if applicable)* _____

Company Contact Name *(if applicable)* _____

Mailing Address _____

City _____ State _____ Zip _____

Telephone _____ Email _____

Who can we contact in case of an emergency?

Name _____ Telephone # _____

PLEASE WRITE NAME CLEARLY AS IT SHOULD APPEAR ON CERTIFICATE OF COMPLETION

B

Student Name _____

Home Phone _____ Cell Phone _____

Email _____

Home Address _____ City _____

State_____ Zip _____

PAYMENT INFORMATION

C

Enclosed Please Find:_____Check_____Money Order_____Credit Card **(Visa, MasterCard, AMEX)**

Card #_____ Expiration Date / /_____ Name on Card_____

Signature Required:

I have read and acknowledge the Registration/Refund Policy as stated:

Signed by:_____Date:_____

Please Remit Payment to: **MEMA P.O. Box 249, Brunswick, Maine 04011-0249**

Tools:

(2) 10" Adjustable Wrenches
(2) 10" Pipe Wrenches
8" Adjustable Wrench
Set of Allen Wrenches (SAE: 7/16" - 1/8"; 6 x 1/8", 9/64 ", 3/16", 7/32", ¼", 5/16")
Set of Combination Wrenches ¼" to ¾" and 5/16" to 9/16"
Set of Metric Compatible Wrenches
Set of Metric Allen Wrenches
2" Three Ring Binder
25' or 30' tape rule
3/16" to ½" Straight Blade Screwdriver 6", 9"
6 in 1 Screwdriver
Torx bit screwdriver
Clamp on Amp/Volt/Ohm Meter
Flaring Tool, Tubing Cutter (i.e. Rigid #15 with reamer)
Flashlight
Grill Lighter
Inches Water Column Gauge
Insulated Linesman's Pliers
Insulated Pump Pliers
Metal Cutting Pliers (Sheet Metal Snips)
Multi-Meter (Category III)
Needle Nose Pliers
Pocket thermometer
Refrigerant Gloves
Safety Glasses
Set of Nut Drivers
Side Cut Pliers
Six in One (1/4" by 5/16") Screwdriver
T10W Press Gauge
T15 Vacuum Gauge
Torpedo Level
Tubing Cutter: 1/8" to 1 1/8"
Utility Knife or Leatherman
Wire Stripper