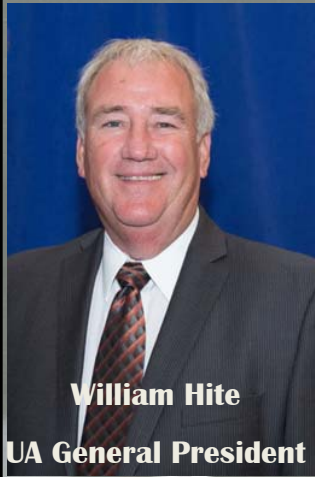


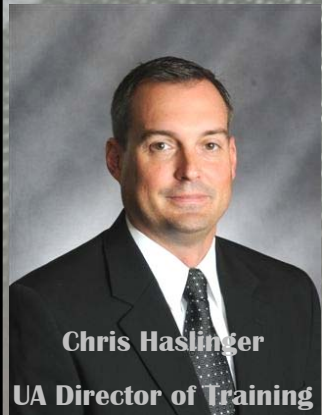


INSTRUCTOR TRAINING PROGRAM



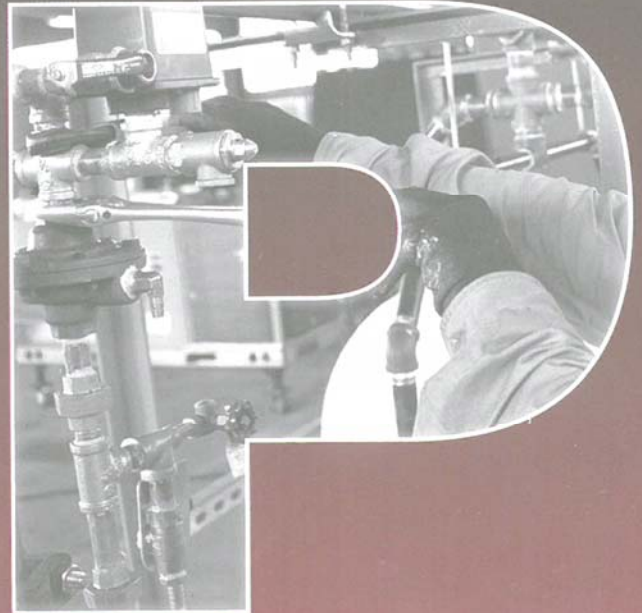
*Ann Arbor, Michigan
August 13-19, 2016*

COMMITMENT TO EXCELLENCE



Greater Michigan Mechanical Industry
Alliance Report

Special Summer Edition 2016



Registration



Hard at Work



Block Party!



Semper Fi / 5 K Race

The UA again held their 5K race to support veterans and wounded warriors. Each year they have raised significant funds for veterans and their families. The race was held during the Block Party in downtown Ann Arbor which also featured live entertainment with the "Tool Shed" by Milwaukee Tools, and offered lots of opportunities to spend time outside the classroom with fellow instructors.



The Third Annual Toilet Race - The Big Flush



First - UA Local 370, Flint, Michigan



Second - UA Local 190, Ann Arbor, Michigan



Third - UA Local 170, Vancouver, BC Canada

Owners Meeting



Classes

Methods in Teaching Drainage Systems

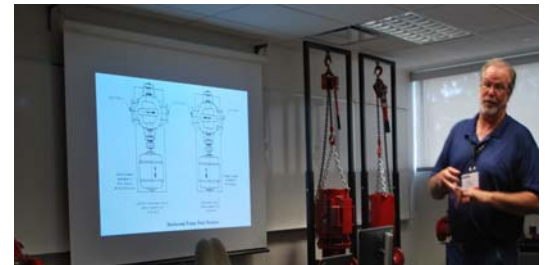
This new course taught how to install various drainage systems used by pipe trades journeymen. The course included drainage historical perspectives, an illustrated glossary, drainage waste and vent materials, fittings and supports, traps and fixture connections, the building sanitary drainage system, vet systems, sewers and sewage treatment, storm drainage, alternate sources drainage systems, sewage disposal systems, and DWV and storm water sizing.



Fire Pump Inspection Testing Maintenance (ITM) and Repair Class Pentair



This course taught the UA instructors an understanding on the proper installation, ITM and repair on the various types of Aurora fire pumps. In this class and hands-on workshop, the participants disassembled, detected and trouble-shot problems and made necessary repairs and reassembled. The code requirements per NFPA 20 and NFPA 25 for installation, inspection, testing and maintenance for fire pumps along with requirements for proper PPE per NFPA 70E were addressed along with a fire pump test where participants had to plot and analyze pump curves.



Pipe Fitting Layout Course

The class showed UA instructors a unique way to teach how to layout pipe and fittings in the field without math or manuals. The class also covered the mitering of pipe & fittings and the use of the Pipe Trades Calculator. The course was a train-the-trainer and centered around methods of teaching. A portion of the course was involved in hands-on exercises.



Tip-Tig Welding Process

This course provided a detailed understanding of the "Tip Tig" (GTAW) Hot Wire welding process. The "Tip Tig" manual welding process allows for substantial increases in filler metal deposition while maintaining superior GTAW weld quality. This course covered the safety, operation, technology and equipment set-up associated with this type of advanced welding system. In addition, the course also covered process variables, system control functions and weld parameter selection for a variety of material. The course returned this year and was taught in one of the mobile welding trailers.



Planning, Teaching and Assessing Effective Lessons: Beginner

This course taught how to structure classroom lessons to support adult learning. An understanding of how adults learn, how to work



with different adult learning styles, and how to create a class climate that promoted learning is developed. The basics of planning and assessing lessons, creating lesson plans, and informal assessments for use in teaching are stressed.



Planning, Teaching, and Assessing Effective Lesson: Intermediate

This course is built on what was taught earlier and practiced in teaching at the local unions. The instructors expanded their skills of planning lessons by focusing on writing clear objectives. How to present material interactively using visual supports like charts and presentations, how to organize group work, and how to run group discussions were featured. To assess learning and learning how to design a worksheet is part of the lesson.



Advanced Tube Bending

The course began by covering the parts of a bender, the "simple" bending process, and the Setback, Advance, Gain (SAG) process. The majority of the course was the study of the SAG method of bending. A general understanding of trigonometry was required and a review of the fundamentals was covered in class. Most of the class was devoted to make equal spread offsets, and rolling offsets using tube benders.



Discussions took place applying the learned concepts on the use of the tangent line to solve a variety of piping related scenarios such as mitering pipe to make fittings, cutting back a weld ell to make a fitting less than 90 degrees and calculating the take-off of the new fitting. The last part of the class was devoted to preparing students to teach at their home locals.



Confined Spaces

The new and updated Center to Protect Workers' Rights (CPWR) Confined Space Train-the-Trainer prepared instructors, who teach workers and apprentices in both Construction and General Industry to work safely in confined spaces. The training was a combination of OSHA's (2264) 3-day confined space course and CPWR's newly revised 2-day entry training. During the train-the-trainer, participants reviewed both OSHA Confined Space standards and analyze the similarities and differences between the two regulations. The OSHA 2264 course directed students to determine if a space is a confined space, and properly classify each confined space as either permit-required or a non-permit space. The course allowed the students to determine which options (reclassification, alternate procedures or permit program) are effective at protecting workers entering permit spaces. Topics include legal issues, permit programs, ventilation and rescue.



Methods in Teaching Related Science

The objective of the course is to apply scientific principles to the pipefitting trade through demonstrations, experiments, and discussions. Topics included: Properties and Characteristics of Water and Steam, Hydraulics and Pneumatics, Mechanics, Metals, Alloy, Synthetics, and corrosions. Additional objectives were to assist instructors with ideas for their classrooms and to create a parallel understanding for plumbing, pipefitting, and HVACR sciences.



Commercial HVACR System Design and Equipment Selection

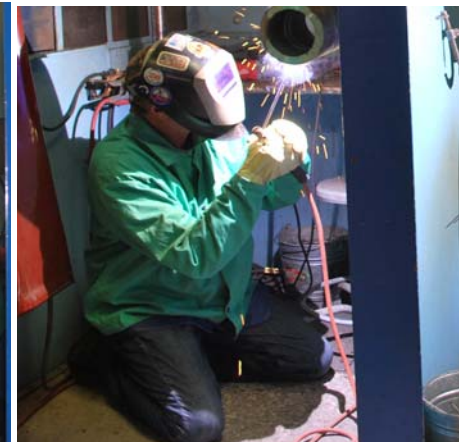


The first course of a three-course certificate program, focused on the selection, application and layout of equipment and systems for commercial buildings. Given building architectural plans, codes and standards, and the owner's requirements, participants examined basic load calculations and psychrometrics as they apply to selection of an appropriate HVACR system. The students produced mechanical schedules and specifications to support the selection. The students gained an increased understanding of the major mechanical system components such as chillers, boilers, cooling towers, and air handling units. In additions, UA technicians learned to evaluate architectural considerations, system configurations, and the economics in relationship to a building first cost and operating cost.

Teaching Gas Metal Arc Welding (GMAW)



Methods in Teaching Shielded Metal Arc Welding (SMAW)



Lunch



Catching Up With Old Friends

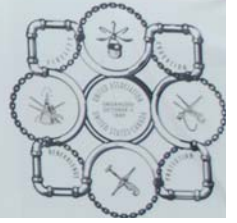


Around Campus





Welcome UA Apprentice Contestants



**Greater Michigan
Industry Alliance
Report**

**Special
Summer Edition
2016**



**Greater Michigan
Plumbing & Mechanical
Contractors Association**
Sandra L. Miller, President
www.greatermichiganpmc.org



UA Local 190
Plumbers / Pipefitters / Service
Technicians / Gas Distribution

**UA Local 190—Plumbers /
Pipefitters / Service
Technicians**
Kevin Groeb, Business Manager
www.ua190.org

**Congratulations to the UA and
UA Training Department**

63rd Year –First Class All The Way

Congratulations to everyone involved in the 63rd UA Instructors Training Program. It has been first class all the way.

The excitement in the UA is obvious by the record breaking number of registrants. The new programs show the vision of the UA to strive to have our workers prepared for the future in the plumbing and mechanical industry.

As we are completing this newsletter on Wednesday night, outlining the events from this year's program, we hope that you too feel that it has been a great week.

Tomorrow night the UA will be graduating new Certified Instructors. Their families and friends will cheer as they reach the end of a five year trek to earn the certification that shows them to be the best of the best in the UA training field.

As you go back to your UA Local Union at home, we wish you the best, because we know you are the best that the UA has to offer, and the best in the construction industry.

All of us in the organized industry are proud of the time and effort you have dedicated to being here this week. We know that your Local Union will greatly benefit by the work you have done here today.

Have a safe trip home, and we hope we will see you next year-----

Kevin Groeb, Business Manager
UA Local Union 190

Sandra L. Miller, President
Greater Michigan Plumbing &
Mechanical Contractors
Association, Inc.

**The 2016 UA Instructor
Training Program**

Total Registered	1765
First Time	367
Coordinator Graduates	26
ITP Graduates	149
Associates	23