

## 2006 United Association Instructor's Training Program

On August 14th, Washtenaw County and Washtenaw Community College was inundated with UA professionals attending the 53rd UA Instructor Training Program.



An extremely busy time, the majority of those in attendance had just enough time to get home and re-pack for Ann Arbor, after serving their Union by being delegates at the 37th General Convention held the week before.

At the convention **William P. Hite, pictured above**, was elected General President of the UA, for a five year term. As General President Hite stated "despite all that has taken place these past several months, none of us has lost sight for even a moment of just how important our Instructor Training Program is. Several new courses have been developed this year, including several classes that focus on the unique challenges of teaching as a profession."

There are new technical classes as well; for example, a new power piping class is being offered that is a response to the remarkable technological advances in our industry."

Pictured throughout this Special Edition of the Greater Michigan Mechanical Industry Alliance Report are UA Instructors, Teachers for the various classes, UA, WCC and MCA officials along with other individuals working to keep the UA's commitment of having the best trained instructors in the construction industry.



Left—UA 190 Instructors  
Below—UA Training Staff





## Soldering and Brazing

This course was designed to teach “how-to teach” methods of soldering and brazing. Experts from the industry demonstrated the techniques and procedures successfully employed in teaching this subject.



It is a “hands-on” course. Each student had the opportunity to try each method being discussed. Students that selected this course were required to have safe work clothes for 3 days of hands-on shop applications. The course covered the technical as well as the practical aspects of sol-

dering as well as brazing. Base metals included copper, brass, stainless steel and aluminum.

## Gas Tungsten Arc Welding



This course emphasized “how to teach” Gas Tungsten Arc Welding in order to increase the quality and quantity of UA instructors in our local welding programs. The course consisted of welding pipe in the 2G, 5G and 6G positions.

The use of consumable inserts were also covered as well as Square Butt Fusion procedures, used in the food and drug industry.

Instructors introduced tools of their own design, including a Universal Traveling Purge tool and an Alignment Containment Band.





# Fundamentals of Rigging and Industrial Rigging Certification for Instructors



The basic fundamentals of rigging were presented in this course. Rigging safety in basic knots and their uses, wire rope and webb slings, and their applications in the trades were taught.

Signaling methods and practical, safe uses of “Rules of Thumb” in everyday in-

stallations in the piping industry were also covered. Industrial Rigging Certification for Instructors has a theoretical and a practical component covering the best rigging practices, calculating centers of gravity, sling stress, crane set up and the use of tuggers, jacks and rollers. There was a hands-on performance evaluation, and a written exam along with the performance exam. Upon passing both, the student receives a UA/EPRI certification for industrial rigging as well as a rigging course C.D. and example workbook.

Prerequisites for this class included that you had completed Course 174 - Fundamentals of Rigging, were currently teaching a comprehensive rigging course, or had equivalent Industrial Rigging field experience.





## Around the Campus



**Okay, You're In There, Find Yourself !**





## Backflow Prevention Certification



This course presented guidelines for acceptable



practices for testing, annual inspection and repair of backflow prevention assemblies used in cross-connection control programs. Course material included information needed for identifying cross-

connections, understanding how backflows occur and the dangers they present, methods used to control backflows and recommended applications for each type of backflow assembly, laws and liability, and hands-on testing and maintenance procedures for various assemblies.

## Using the HVACR Curriculum

Instructors who took this class learned how to prepare and present classroom, shop and web based presentations using the new UA 5 Year HVACR Curriculum materials. Best practices using the PowerPoint presentations, lesson plans, lecture notes, teaching tips, DVDs and image files provided in the HVACR Instructor Set were covered. Instructors created and administered classroom and on-line HVACR quizzes and exams using ExamView supplied question banks. Students also learned how to convert their existing testing material into the ExamView format. Shop presentations using Hampden training equipment was also covered.



## UA STAR Certification Review – HVACR

Students taking this class learned best practices on how to conduct a 16 hour review for the UA STAR



HVACR Technician Certification exam. All of the categories covered by the exam were reviewed. Using the UA Interactive On-Line Curriculum to download UA STAR review materials and practice exams were covered. Web-based STAR review classes were all dis-

## Public Speaking

This course was designed to help students acquire essential speaking and listening skills for the classroom. Class exercises focused on the delivery of lecture material and conducting demonstrations. Students polished organization and delivery skills, as well as gaining a



heightened awareness of the relationship between a speaker and an audience.

Students were encouraged to bring materials from classes they are currently teaching as reference for class exercises.



## Plumbing Fixtures

This course covered the design and function of plumbing fixtures, installation practices, institutional fixtures and equipment, and fixture controls.



## Surveys and Inspections for Cross-Connection Control



This course presented material including the background information needed for identifying cross-connections, understanding how backflows occur and the dangers they present.

Methods used to control backflows and recommended applications for each type of backflow assembly, interpreting plumbing codes and local ordinances, and inspecting a facility for cross-connections were also taught.

## Omnibus

Multiple topics were covered in the five days of class. Each day brought new technical information presented by five different representatives of products that are

used in our piping industry. This years subjects included Synthetic Piping Materials, Cast Iron Piping and Fittings, Firestop, Hangers, Brackets, Mounting Devices, and, Tubing Compression Fittings, Valves and Gauges.





# Trade Teaching Overview and Conditions for Learning



This course is the introductory professional course for United Association (UA) trade teachers. It provided students with an understanding of trade education, and the goals of trade education, the uniqueness of education, and the responsibilities good teachers have in structuring a learning environment where change takes place.



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Students recognized differences in learning outcomes, developed skill in the design of instruction to meet different learning needs, developed a strategy for analyzing the content requirements of trade related learning, and lesson plans to articulate their design of a learning environment. Students were also exposed to the services that are currently available through the UA Training Department.

## Structures for Learning

Structured learning combines the need of setting objectives for what students will learn and the need to measure what they have learned.

The first part of the course focused on the levels of objectives in trade education; the role of setting objectives for daily instruction; the nature of behavioral objectives; identifying the elements of behavior/skills; and identifying consistent standards of performance. The second part of the course focused on the principles of evaluating learner progress and the nature of measurement, testing and



evaluation. The students also learned the qualities of a good test; the process of test construction; developing multiple-choice questions as well as matching/written items; and avoiding bias on grading.



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## Using UA Resources



This course provided students with the technology to teach with Blackboard, Microsoft Office and using available resources through UANET.



