

REGIONAL TRAINING COURSE CATALOG

“COMING TOGETHER BY DISTRICT IN TRAINING FOR THE FUTURE”

2014

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December 2013

Dear Brothers and Sisters

As we count down to the end of 2013, the UA Training Department staff can look back at the year with satisfaction at all we achieved and offer our appreciation to each and every one of you for your support throughout the year. Now we are looking ahead to 2014, and the Training Department has been working over the past few months to ensure that the coming year is just as successful as this year was. Everyone involved in training works hard designing courses and providing a variety of opportunities for instructors to promote our industry-leading training. In this catalog, you will find a large number of classes available for every sector of our trade. As always, we have endeavored to introduce new classes in our regional training format along with offering a variety of classes to benefit instructors in all of the UA crafts.

This year's catalog is segmented into class offerings by district as well as courses offered online. Classes are also available throughout the year at the UA's Great Lakes Training Center at Washtenaw Community College. These courses have been designed to help our instructors improve their teaching techniques, diversify their mechanical skills, and enhance their knowledge of the technical aspects of the trades. Classes are offered to instructors at local training centers; however, when a specific industry need is identified, these classes may be offered to non-instructors.

We are also continuing to strengthen our relationship with Washtenaw Community College as we provide new classes for our instructors, such as MicroTurbine, Victaulic FireLock Fire Protection Valves, and Centrifugal Compressor Fundamentals to name a few. When instructors participate in one or more of our classes, they receive college credit for these courses, which in turn can lead to Associate's or Bachelor's degrees. UA members can also earn college credit for their apprenticeship for courses that are taught by instructors at their local union training center, as outlined in the UA's Apprenticeship Standards.

We encourage you to take time to look through the courses that are listed in this catalog and take advantage of the various training programs that are being offered. Class sizes are limited; however, most classes require a minimum number of students in attendance to warrant holding the class.

We look forward to seeing you in 2014.

Fraternally,



Christopher A. Haslinger
United Association Director of Training
International Training Fund

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Our Mission Statement

The mission of the UA Training Department is to equip United Association locals with educational resources for developing the skills of their apprentices and journeymen. By thus facilitating the training needs of the membership, we maximize their employability and prepare them for changes in the industry. We are committed to making training opportunities available across North America, allowing members to acquire new skills and remain competitive in the industry regardless of geography. In this way, we are determined to meet the needs of the piping industry and enhance employment opportunities for our members, while remaining fiscally responsible to the beneficiaries of the fund.

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PREPARING FOR YOUR CAREER

The International Training Fund provides local union instructors with the educational resources they need to maintain the high level of achievement for United Association apprentices and journeymen and prepare them for their work in the piping industry.



District No. 1

Connecticut, Delaware, Maine, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island and Vermont

District No. 2

District of Columbia, Indiana, Kentucky, Maryland, Michigan, Ohio, Pennsylvania, Virginia and West Virginia

District No. 3

Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee and Texas

District No. 4

Illinois, Iowa, Kansas, Minnesota, Missouri, Montana, Nebraska, North Dakota, South Dakota, Wisconsin and Wyoming

District No. 5

Alaska, Arizona, California, Colorado, Hawaii, Idaho, Nevada, New Mexico, Oregon, Utah and Washington

Online Courses

Great Lakes Regional Training Center (GLRTC)


A CLOSER LOOK

The International Training Fund offers a number of regional training opportunities throughout the year. These courses are offered at various local unions within the five Districts of the UA; in addition, courses are available online, and at the Great Lakes Training Center. These courses are listed by district for easier navigation, but you may register for courses in any district.

NEW COURSES OFFERED IN 2014

- 103 Planning, Teaching & Assessing Effective Lessons: Advanced
- 269 Victaulic FireLock Fire Protection Valves
- 307 Introduction to Microturbines
- 320 Centrifugal Compressor Fundamentals
- 321 Centrifugal Disassembly & Reassembly
- 322 30 Series Screw and Scroll Chiller Fundamentals
- 323 23XRV Liquid Chiller Screw Chiller Service and Operator Course

COURSE REGISTRATION

Course Registration is available online at <https://uanet.org> under *UA Info – Training – Regional Training* and through the UA Members Portal at https://uanet.org/members/course_schedule.asp. You will find a complete listing of courses catalogued by course name, number, format, date, location, and instructor. Each course name is a link to the description for that course where you can find out more information about the course as well as information about the **Credential Form**, which must be filled out by the Local Union Training Director/Coordinator for all UA Training Department courses. To view and complete the registration form for a course, click on the  icon at the end of the course row. Courses are only confirmed when the minimum number of students have registered. Please refrain from making travel or other arrangements until you receive confirmation.



CERTIFICATION FEES

All certification course fees are the responsibility of the student. Fees are due prior to the beginning of the class, upon registration for a class due dates will be provided. Listed below are the fee rates:

Backflow Certification Fees:

(Payable to ASSE)
Tester Certification = \$110.00
Repair & Survey Certification = \$110.00
Recertification Fee = \$65.00

Medical Gas Certification Fees:

(Payable to NITC)
Certification = \$114.00
Recertification = \$46.65
Price increase July 1, 2014
Certification = \$115.00
Recertification = \$47.65

UA Star Exam Fees:

(Payable to NITC)
Certification = \$134.00
Recertification = \$81.65
Price increase July 1, 2014
Certification = \$135.00
Recertification = \$82.65

CWI® Certification Fees:

(Payable to American Welding Society)
CWI = \$1065.00 (non AWS members) /
\$850.00 (AWS members)
CWI/CWE Combo = \$1205.00 (non AWS members) /
\$990.00 (AWS members)
Re-Exams = \$275.00 per part / \$595.00 all parts
Additional Endorsements = \$275.00

Ohio State University Course Fees:

TBD

OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA)

Review the course requirements carefully. The OSHA requirements were changed September 1, 2011 therefore all new instructors **must take UA Course 471 - OSHA 510 OSHA Standards for the Construction Industry prior to taking UA Instructor Course 470 - OSHA 500 Trainer Course for the Construction Industry.**

Each instructor enrolled in UA Course 471 OSHA 500 or UA Course 474 OSHA 502 courses must complete, sign and submit the **NRC/CPWR Prerequisite Verification Form** in order to attend either class. Click on the [NPC/CPWR Prerequisite Verification Form](#), to electronically view or complete this form. This form must be brought to class as OSHA will audit our use of these forms. It is essential that the form be submitted by all students on the first day of class.

471-OSHA 510 OSHA Standards for the Construction Industry

470- OSHA 500 Trainer Course for the Construction Industry

472-OSHA 502 Update for Construction Industry Outreach Trainers

Due to this change OSHA is requiring us to ensure this prerequisite is met, along with the longstanding prerequisite of instructors possessing five years of safety and health experience in the construction industry.



The United Association Training Department is pleased to offer four new HVACR Industry courses in an agreement with Carrier Corporation through the 2014 Regional Training System. These courses will be taught by Carrier University Faculty and have limited availability. It is our goal to provide the best possible training for the UA local unions to meet the current industry needs. **Admittance into this course is subject to Carrier Corporations Registration Policies.** UA active instructors will be given first preference into the course; if space is available members may participate.

320 Centrifugal Compressor Fundamentals (Carrier Course) (32 hours)

In this course, students learn how to operate, maintain, troubleshoot and service 19 Series low and high-pressure machines (including PIC controls on newer models). Learning is tested in our labs. Studies include: refrigeration cycles, compressor theory, lubrication cycles, purge operation, refrigerants, heat exchangers and heat transfer. The course also covers troubleshooting techniques and equipment needed to: record and analyze machine temperatures and pressures; determine performance using heat exchange approaches; waterside flow rate analysis; maintenance requirements; and logging machine data.

Course Date

February 18-21, 2014

Carrier Corp, Syracuse, NY (limit 16)

321 Centrifugal Disassembly & Reassembly (32 hours)

Prerequisite: Centrifugal Compressor Fundamentals

CDR is designed to teach experienced service mechanics how to properly disassemble both low and high-pressure centrifugal compressors, including Models 19XL, XR and EX. Techniques and procedures for using precision instruments are taught for determining clearances, fits, and tolerances of various bearings, seals and components. Students also review compressor lubrication, motor cooling, and capacity control. Because this course is lab oriented with enhanced student/instructor contact, attendance is limited and early registration is recommended.

Course Dates

February 24-27, 2014

Carrier Corp, Syracuse, NY (limit 8)

September 30 - October 3, 2014

Carrier Corp, Syracuse, NY (limit 8)

322 30 Series Screw and Scroll Chiller Fundamentals (36 hours)

In one weeks' time you'll learn to operate, maintain, troubleshoot and service Carrier's complete line of 30 series air-cooled and water-cooled chillers, models include 30GX/HX, RA/RB, XA/XW. This course is a must for any technician whose job it is to service the complete line of 30 series chillers. Studies include chiller refrigeration cycle, compressor theory, cooler heat transfer, water and air-cooled condensers. You'll also learn how to analyze performance by recording and analyzing refrigerant and water pressures and temperatures.

Course Dates

March 4-6, 2014

Ann Arbor, MI (limit 20)

October 7-9, 2014

Ann Arbor, MI (limit 20)

323 23XRV Liquid Chiller Screw Chiller Service and Operator Course (16 hours)

This two day course is targeted at service technicians who operate or service 23XRV chillers. This class will cover the chiller refrigeration cycle, compressor theory, drive theory, cooler heat transfer, water cooled condensers. Operation and function of the compressors, muffler, condenser, coolers, economizers, metering devices, oil concentrator and accessories are covered. You will learn how to analyze performance by recording and analyzing refrigerant and water pressures and temperatures. Service technicians will be able to distinguish between chiller and system problems and to quickly diagnose problems using service logs. The class also covers the unit controls and how to set-up and adjust the controls for optimum system performance. In addition, recommended pre-start and start-up procedures, operational and field issues will be covered.

Course Dates

March 11-12, 2014

Ann Arbor, MI (limit 20)

October 14-15, 2014

Ann Arbor, MI (limit 20)

NINE YEAR RECERTIFICATION FOR CWI®

A minimum of eighty (80) Professional Development Hours (PDHs) must be earned (training received or instruction delivered) during the nine certification period and twenty (20) of the eighty (80) PDHs must be earned in the final three-year period of your nine-year certification period.

Instructors who want to substitute teaching hours for the required PDHs shall submit documentation of the hours of training performed. Such documentation shall include a complete syllabus of subjects taught, a copy of the certificates of attendance or completion issued, the number of students attending, the dates of the training provided, and documentation that the training was a formal offering and not personal coaching, tutoring, or individual instruction delivered to meet job requirements.

A maximum of eighty (80) PDHs are allowed for any one course.

Credit for a particular course may only be granted once in a nine-year period. (Example: a single 40-hour course taught any number of times can only be used to fulfill 40 hours of the 80 hours required for recertification without examination.)

Trainers who want to substitute teaching hours for the required PDHs shall submit documentation of the hours of training performed. Such documentation shall include a complete syllabus of subjects taught, a copy of the certificates of attendance or completion issued, the number of students attending, the dates of the training provided, and documentation that the training was a formal offering and not personal coaching, tutoring, or individual instruction delivered to meet job requirements. For more information please visit <http://www.aws.org>.

The following UA Courses are acceptable to use as PDH:

206	Arc Welding Practical Fundamentals and Theory	390	Authorized Testing Representative Refresher
213	Applied Metallurgy	430	Authorized Testing Representative
247	ASME Section B31.1 Code	476	Methods in Teaching Advanced Orbital Welding
274	Teaching Ox-Acetylene Cutting and Welding	477	Certified Wire Feed Machine Orbital Welding
276	Teaching Advanced Orbital Welding	478	Gold Track GTAW – Wire Feed Machine Welding
279	Machine Cutting, Severing and Beveling	478	Wire Feed “Remote Video” Welding Systems
280	Teaching Aluminum Pipe Welding	479	UA Machine Cutting, Severing and Beveling
280	ASME Section B31.1 Code	480	Radiographic Film Interpretation
274	Teaching Oxy Acetylene Cutting & Welding	482	Teaching Orbital Wire Feed Welding
276	Teaching Advanced Orbital Welding	483	Troubleshooting and Basic Repair of the AMI 207 Orbital Welding Machines
279	Machine Cutting, Severing and Beveling	491	Basic Non-Destructive Testing
280	Teaching Aluminum Pipe Welding	493	AWS-CWI® Preparation Course
286	Teaching Downhill Welding	494	Heavy Wall Welding, Heat Treat Technician Training and Pipe Joint Machine Overview
288	Teaching Shielded Metal Arc Welding	600	Principles of Arc Welding Processes, Welder and Weld Process Qualification & Metallurgy NPE through Ohio State University
290	Teaching Gas Tungsten Arc Welding	601	Weld Metallurgy, Defects, and Discontinuities for Process Piping Materials through Ohio State University
346	Wire Feed OrbiMig Welding Systems	602	NDE for Process Piping through Ohio State University
350	Heat Treat Technician Training		
353	ASME Section IX Welding Code		
355	Quality Control Inspection		
356	Teaching Advanced GTAW		
357	Tip Tig Wire Feed Welding		
358	Teaching Advanced SMAW		
359	Teaching Advanced GMAW		
360	Teaching Submerged Arc Welding		

UA/OHIO STATE UNIVERSITY PROGRAM: ADVANCED WELD ENGINEERING CERTIFICATE PROGRAM

A Weld Engineering Certificate Program has been developed for the United Association by The Ohio State University Weld Engineering Program. The Ohio State University (OSU) and their Weld Engineering Department will be instructing to United Association instructors, three (3) twenty hour courses that upon successful completion would result in the participants receiving a Weld Engineering Certificate from OSU. The Ohio State University is recognized as having the premier program for Weld Engineering. This program has been developed with the intention of providing an opportunity for individuals to increase their knowledge in the welding field as the United Association continues to promote its workforce as the most qualified and trained workforce in the world. The courses would be “hybrid” customized courses built around the B31.3 ASME Pressure Piping Code “Process Piping”. These “hybrid” courses would be designed for the level of an inspector and/or weld technician/specialist. Due to the specialized nature of this course, upon successful completion of the course, individuals will receive a certificate. There may be certain costs associated with a course. The courses may be offered as lectures or in an online format (being developed). The certificate program would be composed of the following courses:

600 Principals of Arc Welding Processes, Welder and Weld Process Qualification (*Only offered at ITP*)

Prerequisite: Attendees must hold current credentials as an AWS Certified Welding Inspector (CWI®)

This first course would focus on the fundamentals and principals of the welding processes used for pressure piping - mainly the arc welding processes and the important issues regarding welder and weld process qualification. General characteristics of the processes, arc fundamentals and arc physics, power supplies, equipment, and applications would be some of the topics covered. The weld process and welder qualification would focus on the requirements specified in ASME Section IX.

601 Weld Metallurgy, Defects, and Discontinuities for Process Piping Materials

Prerequisite: Attendees must hold current credentials as an AWS Certified Welding Inspector (CWI)

This course would build off of the first course, but focus on the weld metallurgy of important B31.3 materials such as plain carbon and low alloy steels, stainless/corrosion resistant steels, and nickel base alloys. In addition to building an understanding of metallurgical issues pertaining to the welding of these materials, the course will include an emphasis on the typical defects and discontinuities that are encountered during welding, and how they can be prevented.

602 NDE for Process Piping

Prerequisite: Attendees must hold current credentials as an AWS Certified Welding Inspector (CWI®)

This course will focus on the principles and application of all of the NDE techniques used for process piping including visual, magnetic particle, liquid penetrant, x-ray, and ultrasonics. A particular emphasis will of course be placed on how these techniques are used to detect weld discontinuities and defects.

UA-EPRI-IBEW INSTRUMENTATION INTRODUCTION TO TESTING

Level I - The Written Test

To pre-qualify for Level 1 Certification, individuals must have attended and completed an approved UA or IBEW instrumentation class, or the individual must hold a Level II ISA certification and have a minimum of five (5) years of instrumentation "Calibration" experience.

Once pre-qualified, those seeking certification must sit for a written test. This open book, open note exam is comprised of 200 questions covering the various aspects of instrumentation, electrical and mechanical theory and instrument calibration. A three and a half (3.5) hour time period is allowed for completion of this exam. There is no "Grand-fathering." Anyone requesting to certify is required to take the test.

In addition, the UA and IBEW, along with EPRI are developing an "online" version of the exam which should be available in the fall. This method will allow a journeyworker to instantly receive "feedback" with their results for the exam. The same prerequisites apply to this exam and the content will be identical to the written version.

Level II - The Practical Test

Once an individual has successfully completed the written certification test, he or she is eligible to take the Level 2 - Practical Exam. The Practical Exam is a hands-on proficiency test. Participants will be required to perform various calibrations on an assortment of different instruments using the test and calibration equipment provided. This portion of the exam is performed on a one-on-one basis with a Test Administrator. The Test Administrator will be observing and validating the process that is used to ensure that the procedures are performed according to recognized industry standards. There is no "Grand-fathering".

Practical Test Format

This test may contain two types of steps: discussion (D) or performance (P). Discussion steps are administered to the examinee simply by asking them the appropriate questions written in the exercise. Performance steps are administered by having the examinee actually perform the steps using the necessary tools and equipment.

The evaluation is a pass/fail test. The calibration equipment and instrumentation listed below will be provided for the test. You will be expected to select the appropriate test equipment from the test equipment listed when performing a calibration on the transmitters and field equipment during the exam. This exam is strictly an evaluation of the calibration process and does not cover the mounting or installation of the devices.

Calibration Equipment:

- Transmation PneuXal IV - Process Calibrator
- Fluke 700P06 - Pressure Module
- Transcat 23232E - DC Power Supply
- Fluke 744 - Process Calibrator
- Fluke 87 - Digital Multimeter
- Altek 334A - Milliamper Calibrator
- Rosemount (HART) Communicator

Transmitters and Field Devices:

- Rosemount 1151 - Differential Pressure Transmitter (Smart and Analog)
- Asco Pressure Switch
- Rosemount I/P (current to pressure) Transducer
- Rosemount 3051 - Differential (Gauge) Pressure Transmitter
- Rosemount 3144P - Temperature Transmitter

Additional information for [UA-EPRI-IBEW Instrumentation Certification](http://uanet.org) is available on <http://uanet.org>.

UA/EPRI INDUSTRIAL RIGGING CERTIFICATION EXAMINATION COURSE



Prerequisites to Registering

Several years ago, under the leadership of General President Hite, the United Association in association with the Electrical Power Research Institute (EPRI) established the Industrial Rigging Examination/Certification Program. A major emphasis of the program is the UA's commitment to continually improve the methods of training and qualifying its members.

It is with this commitment in mind, that members registering to take the UA/EPRI Industrial Rigging Certification Examination Course 420 must have completed the 40 hour UA training course on Industrial Rigging Technology. This course (419 Industrial Rigging Technologies) will ensure that individuals are trained in the planning and precautions required when lifting materials and equipment; proper and safe rigging of loads; proper applications of slings and rigging hardware; advantages & disadvantages of each piece of rigging gear; uses of rigging hardware; determination/calculations of rigging loads & equipment; proper maintenance of rigging equipment and rigging personal protective equipment.

Only those individuals who have completed Course 419 Industrial Rigging Technologies are eligible to take the UA/EPRI Industrial Rigging Certification Examination Course. The certification examination consists of a multiple choice written examination and a hands-on performance examination, developed under the strict requirements of the EPRI-Standard Task Evaluation Program. A score of 80% or above must be achieved on the written examination. During the performance examination individuals must plan and execute a critical lift utilizing a complicated piping assembly, perform a load inversion and load transfer. All elements of the hands-on performance examination must be completed satisfactorily to pass.

The implementation of these changes to the UA/EPRI Industrial Rigging Certification Program is a continuation of the United Association's commitment to assure that the best trained and qualified personnel are available for all future rigging requirements in the construction industry.



Course #	Name	Date	Location	District
103	Planning Teaching & Assessing Effective Lessons: Advance	March 3 – April 14	Blackboard™	Online
105	Problem Solving & Innovations in Trade Teaching	April 7 – May 19	Blackboard™	Online
105	Problem Solving & Innovations in Trade Teaching	October 6 – November 17	Blackboard™	Online
228	Online Teaching Techniques Using Blackboard™	March 3 – April 14	Blackboard™	Online
228	Online Teaching Techniques Using Blackboard™	October 6 – November 17	Blackboard™	Online
269	Victaulic FireLock Fire Protection Valves	March	St. Louis, MO	4
269	Victaulic FireLock Fire Protection Valves	TBA	Hayward, CA	5
269	Victaulic FireLock Fire Protection Valves	TBA	Millburn, NJ	1
269	Victaulic FireLock Fire Protection Valves	TBA	Whittier, CA	5
292	Level II Instrumentation Technician/ Administrator Certification	March 17-21	Pittsburgh, PA	2
299	Industrial Instrument Technician	April 14-19	Ann Arbor, MI	GLRTC
299	Industrial Instrument Technician	October 20-25	Ann Arbor, MI	GLRTC
307	Introduction to MicroTurbines	October	Ann Arbor, MI	GLRTC
320	Centrifugal Compressor Fundamentals	February 18-21	Syracuse, NY	1
321	Centrifugal Disassembly & Reassembly	February 24-27	Syracuse, NY	1
321	Centrifugal Disassembly & Reassembly	September 30 – October 3	Syracuse, NY	1
322	30 Series Screw and Scroll Chiller Fundamentals	March 4-6	Ann Arbor, MI	GLRTC
322	30 Series Screw and Scroll Chiller Fundamentals	October 7-9	Ann Arbor, MI	GLRTC
323	23XRV Liquid Chiller Screw Chiller Service & Operator Course	March 11-12	Ann Arbor, MI	GLRTC
323	23XRV Liquid Chiller Screw Chiller Service & Operator Course	October 14-15	Ann Arbor, MI	GLRTC
331	Medical Gas Refresher	October 7-8	Ann Arbor, MI	GLRTC
332	Admin. Of an Accelerated Welder Training Program	February 25-26	Ann Arbor, MI	GLRTC
346	Wire Feed Orbimig Welding Systems	April 15-17	Ann Arbor, MI	GLRTC
350	Heat Treat Technician Training	April 8-10	Ann Arbor, MI	GLRTC
356	Methods in Teaching Advanced Gas Tungsten Arc Welding (GTAW)	October 27-31	Ann Arbor, MI	GLRTC
357	Tip Tig Wire Feed Welding	January 21-23	Concord, NC	3
357	Tip Tig Wire Feed Welding	April 15-17	Renton, WA	5
357	Tip Tig Wire Feed Welding	June 24-26	Orchard Park, NY	1
357	Tip Tig Wire Feed Welding	September 16-18	Wichita, KS	4
357	Tip Tig Wire Feed Welding	October 28-30	Landover, MD	2
358	Methods in Teaching Adv. Shielded Metal Arc Welding (SMAW)	April 7-11	Ann Arbor, MI	GLRTC
359	Methods in Teaching Gas Metal Arc Welding (GMAW)	February 17-21	Ann Arbor, MI	GLRTC
359	Methods in Teaching Gas Metal Arc Welding (GMAW)	June 9-13	Ann Arbor, MI	GLRTC
371	Crane Signalperson Practical Examiner Accreditation	March 17-19	Van Nuys, CA	5
382	Teaching the HVACR UA Star Certification	March 3 – April 14	Blackboard™	Online
382	Teaching the HVACR UA Star Certification	October 6 – November 17	Blackboard™	Online
419	Industrial Rigging Technologies	March 17-21	Ann Arbor, MI	GLRTC
419	Industrial Rigging Technologies	September 22-26	Ann Arbor, MI	GLRTC
420	Industrial Rigging Certification for Instructors	March 31 – April 4	Ann Arbor, MI	GLRTC
420	Industrial Rigging Certification for Instructors	October 13-17	Ann Arbor, MI	GLRTC
430	Authorized Testing Representative (ATR) Training	January 21-23	Omaha, NE	4
430	Authorized Testing Representative (ATR) Training	February 25-27	Cincinnati, OH	2
430	Authorized Testing Representative (ATR) Training	April 15-17	Renton, WA	5
430	Authorized Testing Representative (ATR) Training	May 13-15	Ann Arbor, MI	GLRTC
430	Authorized Testing Representative (ATR) Training	June 10-12	Kansas City, MO	4
430	Authorized Testing Representative (ATR) Training	September 23-25	Houston, TX	3
430	Authorized Testing Representative (ATR) Training	October 14-16	Syracuse, NY	1
430	Authorized Testing Representative (ATR) Training	November 18-20	Charleston, WV	2
430	Authorized Testing Representative (ATR) Training	December 9-11	Baton Rouge, LA	3

<u>Course #</u>	<u>Name</u>	<u>Date</u>	<u>Location</u>	<u>District</u>
442	Refrigerant Controls Online Course	February 3 – April 28	Blackboard™	Online
444	Electrical Controls Online Course	September 15 – December 8	Blackboard™	Online
452	Introduction to Computer Aided Drafting (CAD)	February 3 – April 14	Blackboard™	Online
452	Introduction to Computer Aided Drafting (CAD)	September 8 – December 1	Blackboard™	Online
462	Valve Repair Instructor Course	January 13-17	Cedar Rapids, IA	4
462	Valve Repair Instructor Course	November 3-7	Metairie, LA	3
468	Medical Gas Instructor Course	March 17-21	Ann Arbor, MI	GLRTC
470	OSHA 500 Trainer Course for the Construction Industry	April 14-18	Ann Arbor, MI	GLRTC
470	OSHA 500 Trainer Course for the Construction Industry	November 3-7	Ann Arbor, MI	GLRTC
471	OSHA 510 OSHA Standards for the Construction Industry	March 24-28	Ann Arbor, MI	GLRTC
471	OSHA 510 OSHA Standards for the Construction Industry	August 4-8	Ann Arbor, MI	GLRTC
471	OSHA 510 OSHA Standards for the Construction Industry	October 6-10	Ann Arbor, MI	GLRTC
474	OSHA 502 Update Construction Industry Outreach Trainer	February 18-20	Long Island City, NY	1
474	OSHA 502 Update Construction Industry Outreach Trainer	June 17-19	Des Moines, IA	4
474	OSHA 502 Update Construction Industry Outreach Trainer	December 9-11	Ann Arbor, MI	GLRTC
476	Orbital Tube Welding	May 12-16	Ann Arbor, MI	GLRTC
478	Wire Feed “Remote Video” Welding Systems	February 24-28	Ann Arbor, MI	GLRTC
478	Wire Feed “Remote Video” Welding Systems	November 17-21	Ann Arbor, MI	GLRTC
479	UA Machine Cutting, Severing & Beveling	May 19-23	Cedar Rapids, IA	4
480	Radiographic Film Interpretation	February 24-26	Ann Arbor, MI	GLRTC
480	Radiographic Film Interpretation	October 27-29	Austin, TX	3
482	Teaching Orbital Wire Feed Welding	February 24-28	Ann Arbor, MI	GLRTC
482	Teaching Orbital Wire Feed Welding	November 10-14	Ann Arbor, MI	GLRTC
483	Troubleshooting & Basic Repair of the AMI 207 Orbital Welding Machine	June 16-20	Ann Arbor, MI	GLRTC
491	Basic Non-Destructive Testing	March 10-14	Phoenix, AZ	5
491	Basic Non-Destructive Testing	November 17-21	Kaukauna, WI	4
493	AWS-CWI® Preparation Course and Exam	January 11-18	Augusta, GA	3
493	AWS-CWI® Preparation Course and Exam	February 8-15	Ann Arbor, MI	GLRTC
493	AWS-CWI® Preparation Course and Exam	March 15-22	Pittsburgh, PA	2
493	AWS-CWI® Preparation Course and Exam	March 29 – April 5	Tulsa, OK	3
493	AWS-CWI® Preparation Course and Exam	April 26 – May 3	Latham, NY	1
493	AWS-CWI® Preparation Course and Exam	May 10-17	Wichita, KS	4
493	AWS-CWI® Preparation Course and Exam	June 7-14	Burlington, WA	5
493	AWS-CWI® Preparation Course and Exam	June 21-28	Landover, MD	2
493	AWS-CWI® Preparation Course and Exam	July 12-19	Oakland, CA	5
493	AWS-CWI® Preparation Course and Exam	August 2-9	Ann Arbor, MI	GLRTC
493	AWS-CWI® Preparation Course and Exam	September 6-13	Garland, TX	3
493	AWS-CWI® Preparation Course and Exam	September 20-27	Parkersburg, WV	2
493	AWS-CWI® Preparation Course and Exam	October 11-18	Metairie, LA	3
493	AWS-CWI® Preparation Course and Exam	November 15-22	Winslow, NJ	1
493	AWS-CWI® Preparation Course and Exam	December 13-20	Terre Haute, IN	2
522	Labor History and the UA: 1800 to the Present	February 3 – April 14	Blackboard™	Online
522	Labor History and the UA: 1800 to the Present	October 6 – December 15	Blackboard™	Online
601	Weld Metallurgy	May 12-16	OSU	2
602	NDE for Process Piping	May 12-16	OSU	2
800	NCCCO Signaller Practical Examiner Refresher	March 24	Ann Arbor, MI	GLRTC

GLRTC - Great Lakes Regional Training Center

SAFETY REQUIREMENTS

Students must bring their own safety equipment. These items will not be supplied. Safety equipment and protective clothing is required for all shop classes. Safety requirements will be strictly enforced. Any student who fails to meet safety requirements will be removed from class.

1. Eye & Face Protection (OSHA-1926 1926.102)

Goggles or spectacles conforming to ANSI Z87.1-1968 shall be used as primary protection. Safety glasses will be required in all shop classes.

2. Face Shields

Face shields shall be used as secondary protection when the faculty instructor requires it.

3. Welding Shields

Welding shields and head covering must meet industry standards and be approved by the faculty instructor. You must bring welding hoods for welding classes.

4. Hand Protection

Appropriate gloves must be worn when doing hot work or working with sharps as approved by the faculty instructor. You must bring gloves for welding classes.

5. Arms and Torso Protection

Welders must use appropriate protective jackets, sleeves, and/or other protective gear. All protective gear must be approved by the faculty instructor. Long sleeve shirts will be required in all shop classes. You must bring welding jackets for classes.

6. Foot Protection

Work shoes must be made of leather or other similarly strong materials, and are required in all shop classes (No sneakers or sandals will be permitted).

7. Leg Protection

Long pants will be required in all shop classes (No shorts will be permitted).

Facilities

Built in 2003, the Great Lakes Regional Training Center (GLRTC) is the most recent addition to the UA training center system. This facility is the home base for the annual United Association Instructor Training Program. This five year program trains nearly two thousand UA instructors with 200 hours of classroom and hands-on training experience. Upon graduation, instructors then become certified to teach apprentices and journeyworkers at their home local.



The 15,000 square foot Great Lakes Regional Training Center is a flexible facility designed to accommodate lab activities, computer-based learning, and classroom training.

What We Do

The Great Lakes Regional Training Center:

- Answers any questions you have about training center services
- Assists students in web-based classes using Blackboard™
- Helps instructors develop online classes
- Facilitates student participation in College on Demand® courses
- Provides academic advising for WCC Associates Degrees
- Evaluates transfer credits from other academic institutions
- Facilitates various onsite training courses throughout the year.

Over 27,000 UA apprentices and 3,000 instructors and journeyworkers participate in college credit programs at Washtenaw Community College. Each year the Great Lakes Regional Training Center awards over 170,000 college credits to UA members.

Staff

Rodrigo Jara, Administrator, Great Lakes Regional Training Center

Scott Klapper, UA Programs Administrator

Kim Billings, Logistics Director

Steve Guerriero, UA Programs Assistant

Laurel Keller, UA Distance Learning Coordinator

Mike Griffith, WCC-UA Student Services Coordinator

Address

UA Great Lakes Regional Training Center

4800 East Huron River Drive

Ann Arbor, MI 48105

(734)-973-3300

299 Industrial Instrumentation Technician

This course is designed to assist instructors looking for help preparing apprentices and journeymen for the UA Industrial Instrument Technician Certification examination. Instructors taking this course should have a strong background in the fundamentals of industrial instrumentation and calibration. This course consists of basic sciences and fundamentals related to instrumentation and controls, as applied to the UA certification.

Required text for this course: *Instrumentation Manual*

Course Dates

April 14-19, 2014

October 20-25, 2014

307 Introduction to Microturbines

This course will provide an overview of the fundamentals involved with the installation, operation and maintenance involved in Microturbines. Additionally, students will be given instruction on how Microturbines can be used as part of a Trigeneration system. Instruction will be done on a CCHP (Combined, Cool, Heat Power) system utilizing a new equipment installed in Washtenaw Community College and the Great Lakes Training Center which includes two 65kW Capstone Microturbines, an absorber and cooling tower.

Course Date

October 2014

322 30 Series Screw and Scroll Chiller Fundamentals

In one weeks' time you'll learn to operate, maintain, troubleshoot and service Carrier's complete line of 30 series air-cooled and water-cooled chillers, models include 30GX/HX, RA.RB, XA.XW. This course is a must for any technician whose job it is to service the complete line of 30 series chillers. Studies include chiller refrigeration cycle, compressor theory, cooler heat transfer, water and air-cooled condensers. You'll also learn how to analyze performance by recording and analyzing refrigerant and water pressures and temperatures. Admittance into this course is subject to Carrier Corporations Registration Policies.

Course Dates

March 4-6, 2014

October 7-9, 2014

323 23XRV Liquid Chiller Screw Chiller Service and Operator Course

This two day course is targeted at service technicians who operate or service 23XRV chillers. This class will cover the chiller refrigeration cycle, compressor theory, drive theory, cooler heat transfer, water cooled condensers. Operation and function of the compressors, muffler, condenser, coolers, economizers, metering devices, oil concentrator and accessories are covered. You will learn how to analyze performance by recording and analyzing refrigerant and water pressures and temperatures. Service technicians will be able to distinguish between chiller and system problems and to quickly diagnose problems using service logs. The class also covers the unit controls and how to set-up and adjust the controls for optimum system performance. In addition, recommended pre-start and start-up procedures, operational and field issues will be covered. Admittance into this course is subject to Carrier Corporations Registration Policies.

Course Dates

March 11-12, 2014

October 14-15, 2014

331 Medical Gas Refresher

All fees are the responsibility of the student and must be paid by the first day class. See fee schedule.

This course will bring current Certified Medical Gas Instructors up-to-date on the latest editions of the standards governing the installation of medical gas and medical-surgical vacuum piping systems. This class covers the significant changes that have occurred between the NFPA 2005 standard and the NFPA 2012 standard. A proctored online exam will be administered at the completion of the course. Successful individuals will extend their instructor's certification as a Certified Medical Gas Instructor of the United Association by the NITC.

Required text for this course: *NFPA-99 2012 Edition Health Care Facilities; NFPA 2012 Edition Medical Gas and Vacuum Systems Installation Handbook; ASSE Series 6000 Medical Gas Professional Qualifications Standard.*

Course Date

October 7-8, 2014

332 Administration of an Accelerated Welder Training Program

This course is designed for any local union training center interested in establishing an Accelerated Welder Training Program. Instructors will acquire a comprehensive understanding of the requirements for proper and effective implementation of the program. Emphasis will be on the execution of policies and procedures, utilization of program curriculum, usage of program documentation and execution of financials specific to this program. The course also focuses on legalities of the program pertaining to both the local union and the students. This course will be a requirement for any local union training center requesting financial assistance from the UA Training Department in the funding of their Accelerated Welder Training Program. **Instructors will be required to bring a calculator to class.**

Required text for this course: *Gas Tungsten Set; Job Safety Manual; Oxy-Fuel Cutting & Welding; Shielded Metal Arc Welding*

Course Date

February 25-26, 2014

346 Wire Feed OrbiMig Welding Systems

This course is focused on train-the-trainer and will provide the instructor with an understanding of how to teach the orbital pipe Flux Core welding process at the local level. The course covers the operation, technology, and equipment set-up and safety issues associated with these types of advanced welding systems. This course also explains process variables including various mig arc transfers, pulsed mig, and root pass welding with the STT, RMD and CMT process along with wire and gas selections. The course is structured to provide instructors a hands-on training approach using the Liburdi Dimetrics Orbi Mig 2 with "K" Weld Head to fill and cap carbon steel pipe in 2G and 5G positions. **Students must bring their own welding hoods, welding jackets, welding gloves, work shoes, and wear proper protective clothing, refer to 2014 Safety Requirements.**

Course Date

April 15-17, 2014

350 Heat Treat Technician Training

Prerequisite: Minimum 5 years' experience with GTAW and SMAW

This twenty hour Train the Trainer course is designed to provide a hands-on practical understanding of the heat treating with focus on the latest induction heating system technologies. This course will cover the operation for heat treatment equipment.

Course Date

April 8-10, 2014

356 Methods in Teaching Advanced Gas Tungsten Arc Welding (GTAW)

Prerequisite: Certified Welder in the GTAW welding process

This course is specifically designed for local union welding instructors, and covers advanced pipe welding teaching techniques used in such applications as welding high alloys materials and process piping. The course focuses on how to teach advanced techniques of gas tungsten arc welding (GTAW) and process variables for a variety of materials. The piping industry is turning to the use of more advanced welding equipment and techniques. This course provides local unions a means of preparing their members in developing the skills necessary to address industry's welding needs. **Students must bring their own welding hoods, jackets, and gloves. Proper work clothing and safety shoes are mandatory, refer to 2014 Safety Requirements.**

Course Date

October 27-31, 2014

358 Methods in Teaching Advanced Shielded Metal Arc Welding (SMAW)

Prerequisite: Certified Welder in the SMAW welding process

This train-the-trainer course, specifically designed for local union welding instructors, covers advanced pipe welding techniques used in such applications as heavy wall piping and welding alloys. The course focuses on "how to teach" advanced techniques of shielded metal arc welding (SMAW) and process variables for a variety of materials. The piping industry is turning to the use of more advanced welding equipment and techniques; this course provides local unions a means of preparing their apprentices and journeyworkers in developing the skills necessary to address the industry's welding needs. Enrollment is limited to local union welding instructors who hold current SMAW UA Weld Certifications. Students must bring their own welding hoods, jackets, and gloves. All courses are train-the-trainer and center around methods of teaching. Only a small portion of the course will involve hands-on training, although proper work clothing and safety shoes are still mandatory for that time. **Students must bring their own welding hoods, jackets, and gloves. Proper work clothing and safety shoes are mandatory, refer to 2014 Safety Requirements.**

Course Date

April 7-11, 2014

359 Methods in Teaching Gas Metal Arc Welding (GMAW)

Prerequisite: Certified Welder in the GMAW welding process

This course is designed for local union welding instructors, and covers advanced gas metal arc welding equipment and techniques. The course focuses on how to teach advanced techniques of gas metal arc welding (GMAW) and process variables for a variety of materials. More and more, the piping industry is turning to the use of advanced welding equipment and techniques. This course provides local unions a means of preparing their members in developing the skills necessary to address industry's welding needs. **Students must bring their own welding hoods, jackets, and gloves. Proper work clothing and safety shoes are mandatory, refer to 2014 Safety Requirements.**

Course Dates

February 17-21, 2014

June 9-13, 2014

419 Industrial Rigging Technologies

This course will ensure that individuals are trained in the planning and precautions required when lifting materials and equipment; proper and safe rigging of loads; proper applications of slings and rigging hardware; advantages and disadvantages of each piece of rigging gear; uses of rigging hardware; determination/calculations of rigging loads and equipment; and proper maintenance of rigging equipment and rigging personal protective equipment. All courses are train-the-trainer and center around methods of teaching. **Only a small portion of the course will involve hands-on training, although proper work clothing and safety (STEEL TOE) boots are mandatory, refer to 2014 Safety Requirements.**

Required text for this course: *UA Rigging Manual; IPT Crane & Rigging Handbook*

Course Dates

March 17-21, 2014

September 22-26, 2014

420 Industrial Rigging Certification for Instructors

Prerequisite: Course #419 Industrial Rigging Technologies

Industrial Rigging Certification for the instructor is a train-the-trainer course that teaches a theoretical and a practical component covering the best rigging practices calculating centers of gravity, sling stress, crane set up, and use of the tuggers, jacks, and rollers. There will be hands on performance evaluation. Participants rigging skills are evaluated by means of a certification examination consisting of a multiple choice written exam and a hands-on performance exam. The hands-on performance exam consists of performance steps that are administered by having the examinee actually perform a sequence of lifts using the necessary tools and equipment. **Students must bring an 8GB flash drive and calculator to class. Proper work clothing and safety shoes are mandatory, refer to 2014 Safety Requirements.**

Required text for this course: *Rigging Manual (R/04); IPT Crane and Rigging Handbook; Students must read pages 1 to 163 in the IPT Crane and Rigging Handbook and all of the Rigging Manual prior to class and have a clear understanding of both books.*

Course Dates

March 31 – April 4, 2014

October 13-17, 2014

430 Authorized Testing Representative (ATR) Training

This course is designed to provide participants an understanding of the fundamentals of the UA Welder Certification Program. Participants will be able to perform the duties and responsibilities of an ATR as defined in the program, from administrative functions to performing visual inspection of welded coupons to determine their acceptability and verifying compliance of radiographic examinations to the program. It is recommended to bring a calculator to this class for figuring qualification ranges of welders. To achieve the position of ATR an individual must complete and satisfy the mandatory requirements: letter of recommendation from local union management, and high school diploma. This class will also serve as a refresher class for those who are already ATRs. **Students should bring a calculator to class.**

Course Date

May 13-15, 2014

468 Medical Gas Instructor

Prerequisite: Current Medical Gas Installer and Medical Gas Brazier Certifications

All fees are the responsibility of the student and must be paid by the first day class. See fee schedule.

This train-the-trainer course covers the NFPA 2012 codes and ASSE Series 6000 standards that govern medical gas and medical-surgical vacuum piping system installation and testing, requirements for installer qualification, and requirements for brazer qualification in accordance with ASME Section IX. A written exam will be administered at the end of the course. UA instructors who successfully pass the course and exam will receive the certification of a Medical Gas Instructor of the United Association issued by NITC.

Required text for this course: *NFPA-99 2012 Edition Health Care Facilities; NFPA 2012 Edition Medical Gas and Vacuum Systems Installation Handbook; ASSE Series 6000 Medical Gas Professional Qualifications Standard.*

Course Date

March 17-21, 2014

470 OSHA 500 Trainer Course for the Construction Industry

Prerequisite: Course 471, OSHA 510

This course certifies UA instructors to teach the OSHA 10-hour and OSHA 30-hour construction safety and health outreach programs at their respective locals. Special emphasis is placed on adult learning principals and training techniques to clearly identify, define, and explain construction industry hazards and acceptable corrective measures as required in the programs using 29 CFR 1926 OSHA Construction Standards as a guide. This course also covers the effective use of electronic visual aids and handouts. After successful completion of the course the student will be given a bag containing hands on training materials to use in class, i.e. eye, ear, head and hand protection items.

Required text for this course: *OSHA 500 Manual; CFR 1926; Disaster Response DVD; OSHA Six-Disk Set*

Course Dates

April 14-18, 2014

November 3-7, 2014

471 OSHA 510 OSHA Standards for the Construction Industry

This is the prerequisite course for Course 470, OSHA 500. This course covers the construction safety and health principles and OSHA policies, procedures and standards, as they apply to the construction industry. Topics include scope and application of the OSHA construction standards. Special emphasis is placed on those areas that are the most hazardous, using OSHA standards as a guide. As of September 1, 2011 all new instructors must have taken the OSHA 510 PRIOR to taking the OSHA 500 course. OSHA is requiring this to ensure this prerequisite is met, along with the long-standing prerequisite of instructors possessing five years of safety and health experience in the construction industry. Effective immediately, each instructor attending an OSHA 500 or 502 courses must fill out the form to verify these prerequisites.

Required text for this course: *OSHA 510 Training Binder; CFR 1926; Disaster Response DVD*

Course Dates

March 24-28, 2014

August 4-8, 2014

October 6-10, 2014

474 OSHA 502 Update for Construction Industry Outreach Trainers

Prerequisite: Course 470, OSHA 500

This course is designed for instructors who have completed the Basic Instructor Course in Occupational Safety and Health Standards for the Construction Industry (OSHA 500) Course. OSHA requires that these instructors stay current on OSHA standards and they must take the OSHA 502 update course every four years to maintain their status. Course participants will be provided updates on such topics as OSHA construction standards, policies and regulations. After completion of the course, each participant will receive a certificate. OSHA will be notified that they have completed this course and met their obligation to stay current.

Required text for this course: *OSHA 502 Training Binder; CFR 1926; Disaster Response DVD*

Course Date

December 9-11, 2014

476 Methods in Teaching Orbital Tube Welding

Prerequisite: UA18 and a GTAW Certification

This course is designed to provide each local the opportunity to qualify orbital tube welders at a local level. Our aim is to assist each local in the expertise needed to improve their teaching techniques and expand their technical knowledge giving each local the ability to train quality craftworkers. In an effort to standardize the UA Orbital Tube Welding Program each participant passing this course will become a UA Certified Instructor in Orbital Tube Welding. Anyone wishing to participate in this course must hold the UA Orbital Tube Welder Certification (UA 18-A) and at least one of the following: UA GTAW Welder Certifications (UA-13, UA-14, UA-22, UA-41, UA-42, UA-43 or UA-45). Upon satisfactory completion of this course, instructors will be given the necessary training material to instruct this course. **Instructors must bring their own calculator. Proper work clothing and safety shoes are mandatory, refer to 2014 Safety Requirements.**

Required material for this course: *Orbital Welding CD*

Course Date

May 12-16, 2014

478 Wire Feed "Remote Video" Welding Systems

Prerequisite: Certified Welder in the Gas Tungsten Arc Welding (GTAW) process

This course is focused on train-the-trainer and will provide the instructor with an understanding of how to teach the orbital wire feed remote welding process at the local level. The course covers the operation, technology, and equipment set-up and safety issues associated with these types of advanced welding systems. Additionally, this course covers process variables, system programmer control functions and weld parameter selection which provides the theoretical basis for weld program development. The course is structured to provide instructors with a hands-on training approach using the Remote Video AMI 415 and Liburdi Gold Track Fire View orbital wire feed welding systems. **Students must bring their own welding hoods, welding jackets, welding gloves, work shoes, and wear proper protective clothing, refer to 2014 Safety Requirements.**

Course Dates

February 24-28, 2014

November 17-21, 2014

480 Radiographic Film Interpretation

This course covers the basic skills and techniques required when viewing and interpreting radiographic films (x-rays). The course will involve theory and hands-on practical labs interpreting x-ray films of piping welds. The course instructors are highly experienced in radiographic examination and its uses in the inspection of piping welds and materials. It is recommended class attendees hold the AWS CWI® credential. All courses are train-the-trainer and center around methods of teaching. Only a small portion of the course will involve hands-on training, although proper work clothing and safety shoes are mandatory, refer to 2014 Safety Requirements.

Course Date

February 24-26, 2014

482 Teaching Orbital Wire Feed Welding

Prerequisite: Certified Welder in the Gas Tungsten Arc Welding (GTAW) process

This course provides UA instructors with an understanding of how to teach the orbital wire feed welding process at the local level. The course covers the operation, technology, equipment set-up, and safety issues associated with these types of advanced welding systems. Additionally, this course will cover process variables, system programmer control functions, and weld parameter selection, and gives the theoretical basis for weld program development. The course provides instructors with a hands-on approach in using the AMI 227 and Liburdi Gold Track orbital wire feed welding systems. **Students must bring their own welding hoods, welding jackets, welding gloves, work shoes, and wear proper protective clothing, refer to 2014 Safety Requirements.**

Course Dates

February 24-28, 2014

November 10-14, 2014

483 Troubleshooting & Basic Repair of the AMI 207 Orbital Welding Machine

Prerequisite: Hold current UA-18A Orbital welder certification

This course covers the basics of troubleshooting and repairing of orbital welding equipment typically used for fusion welding stainless steel tubing. The course will demonstrate how to dismantle, repair, and calibrate the machine with its various size weld heads. **Proper work clothing and safety shoes are mandatory, refer to 2014 Safety Requirements.**

Course Date

June 16-20, 2014

493 AWS-CWI® Preparation Course and Exam*Prerequisite: 5 Years Welding Experience***All fees are the responsibility of the student. See fee schedule.**

This course will provide welding inspectors with the knowledge of welding and inspection fundamentals useful on the jobsite. It involves great responsibility and remarkable skill demonstration. The CWI® is widely recognized, both nationally and internationally. This intensive course covers information on nondestructive examination methods applicable to common welding processes and general provisions of API 1104, which includes qualification of welding procedures for welds containing filler-metal additions, design and preparation of the joint for production welding, nondestructive testing and acceptance standards, and automatic welding with and without filler-metal additions. You must be a high school graduate or hold an equivalency diploma and have a minimum of five (5) years' experience in the welding field.

Course Dates**February 8-15, 2014****August 2-9, 2014****800 NCCCO Signalperson Practical Examiner Refresher Course**

This refresher is for instructors who previously attended the NCCCO Signalperson Practical Examiner Course, but have yet to administer an exam, or haven't given an exam in the last 12 months. It will cover the signalperson examination process as well as update you on any changes to the program. Once completed, you will again be eligible to offer NCCCO Signalperson Exams at your local. Please note, only those who have previously attended an NCCCO Signalperson Practical Examiner-Instructor course are eligible to take this refresher. Although the Training Department paid the cost of the initial examiner course, the fees for the refresher are the responsibility of the instructor's local union training center. The approximate cost is \$350.00 per student and will be billed to the individuals training center upon completion.

Course Date**March 24, 2014**

269 Victaulic FireLock Fire Protection Valves

Participants will gain a complete working knowledge of the installation, troubleshooting, and repair of Victaulic FireLock Protection Valves, and will develop the essential skills to train UA apprentices and journeyworkers in these subjects. Victaulic will issue certifications for those who successfully complete the course.

Course Date

TBA

Local Union 696 Training Center
41-43 E Willow Street, Millburn, NJ 07041

320 Centrifugal Compressor Fundamentals (Carrier Corporation Course)

In this course, students learn how to operate, maintain, troubleshoot and service 19 Series low and high-pressure machines (including PIC controls on newer models). Learning is tested in our labs. Studies include: refrigeration cycles, compressor theory, lubrication cycles, purge operation, refrigerants, heat exchangers and heat transfer. The course also covers troubleshooting techniques and equipment needed to: record and analyze machine temperatures and pressures; determine performance using heat exchange approaches; water-side flow rate analysis; maintenance requirements; and logging machine data. **Admittance into this course is subject to Carrier Corporations Registration Policies.**

Course Date

February 18-21, 2014

Carrier Corporation
6540 Old Collamer Road S.; E. Syracuse, NY 13057

321 Centrifugal Disassembly & Reassembly (CDR) (Carrier Corporation Course)

Prerequisite: Course 320, Centrifugal Compressor Fundamentals

CDR is designed to teach experienced service mechanics how to properly disassemble both low and high-pressure centrifugal compressors, including Models 19XL, XR and EX. Techniques and procedures for using precision instruments are taught for determining clearances, fits, and tolerances of various bearings, seals and components. Students also review compressor lubrication, motor cooling, and capacity control. Because this course is lab oriented with enhanced student/instructor contact, attendance is limited and early registration is recommended. **Admittance into this course is subject to Carrier Corporations Registration Policies.**

321 Centrifugal Disassembly & Reassembly (Carrier Corporation Course) (continued)Course Dates

February 24-27, 2014

Carrier Corporation
6540 Old Collamer Road S.; E. Syracuse, NY 13057

September 30-October 3, 2014

Carrier Corporation
6540 Old Collamer Road S.; E. Syracuse, NY 13057

357 Tip Tig Wire Feed Welding Process

This "train-the-trainer" course is specifically designed for local union welding instructors that provide a detail 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 covers the safety, operation, technology and equipment set-up associated with this type of advanced welding system. In addition, the course covers process variables, system control functions and weld parameter selection for a variety of material. Enrollment shall be limited to local union instructors with a minimum of 5 years' experience with the GTAW and GMAW welding processes. **Students must bring their own welding hoods, jackets, and gloves. Proper work clothing and safety shoes are mandatory, refer to 2014 Safety Requirements.**

Course Date

June 24-26, 2014

Local Union 22
3651 California Road, Orchard Park, NY 14127

430 Authorized Testing Representative (ATR) Training

This course is designed to provide participants an understanding of the fundamentals of the UA Welder Certification Program. Participants will be able to perform the duties and responsibilities of an ATR as defined in the program, from administrative functions to performing visual inspection of welded coupons to determine their acceptability and verifying compliance of radiographic examinations to the program. It is recommended to bring a calculator to this class for figuring qualification ranges of welders. To achieve the position of ATR an individual must complete and satisfy the mandatory requirements: letter of recommendation from local union management, and high school diploma. This class will also serve as a refresher class for those who are already ATRs. **Students should bring a calculator to class.**

Course Date

October 14-16, 2014

Local Union 267 Training Center
150 Midler Park Drive, Syracuse, NY 13206

474 OSHA 502 Update for Construction Industry Outreach Trainers

Prerequisite: Course 470, OSHA 500

This course is designed for instructors who have completed the Basic Instructor Course in Occupational Safety and Health Standards for the Construction Industry (OSHA 500) Course. OSHA requires that these instructors stay current on OSHA standards and they must take the OSHA 502 update course every four years to maintain their status. Course participants will be provided updates on such topics as OSHA construction standards, policies and regulations. After completion of the course, each participant will receive a certificate. OSHA will be notified that they have completed this course and met their obligation to stay current.

Required text for this course: *OSHA 502 Training Binder; CFR 1926; Disaster Response DVD*

Course Date**February 18-20**

Local Union 638 Training Center
48-03 - 32nd Place, Long Island City, NY 11101

493 AWS-CWI® Preparation Course and Exam

Prerequisite: 5 Years Welding Experience

All fees are the responsibility of the student. See fee schedule.

This course will provide welding inspectors with the knowledge of welding and inspection fundamentals useful on the jobsite. It involves great responsibility and remarkable skill demonstration. The CWI® is widely recognized, both nationally and internationally. This intensive course covers information on nondestructive examination methods applicable to common welding processes and general provisions of API 1104, which includes qualification of welding procedures for welds containing filler-metal additions, design and preparation of the joint for production welding, nondestructive testing and acceptance standards, and automatic welding with and without filler-metal additions. You must be a high school graduate or hold an equivalency diploma and have a minimum of five (5) years' experience in the welding field.

Course Dates**April 26-May 3, 2014**

Local Union 7 Training Center
18 Avis Drive; Latham, NY 12110

November 15-22, 2014

Local Union 322 Training Center
534 South Route 73; Winslow, NJ 08095

292 Level II Instrumentation Technician/Administrator Certification

This certification is designed for instructors looking to receive the Level II Instrumentation Technician/Administrator Certification. The Level II UA/IBEW/EPRI Instrumentation Technician/Administrator certification is a performance exam. Participants will be tested upon their ability to perform the hands-on portion of the Level II Certification exam, asked to explain in detail the operation of any of the devices used for examination purposes, and perform calibrations with all the equipment used for the exam. **The only prerequisite is to be Level I certified before attending the Level II administration course.** This exam will be 2 of the 4 days specified. This is a **test only**, no class is given.

If you have an instructor interested in attending this course please contact Carrie King, Certification Manager at 410-269-2000 ext. 4023 or by email carriek@uanet.org.

Course Date**March 17-21, 2014**

IBEW Local Union 5

5 Hot Metal Street; Pittsburgh, PA 15203

357 Tip Tig Wire Feed Welding Process

This "train-the-trainer" course is specifically designed for local union welding instructors that provide a detail 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 covers the safety, operation, technology and equipment set-up associated with this type of advanced welding system. In addition, the course covers process variables, system control functions and weld parameter selection for a variety of material. Enrollment shall be limited to local union instructors with a minimum of 5 years' experience with the GTAW and GMAW welding processes. **Students must bring their own welding hoods, jackets, and gloves. Proper work clothing and safety shoes are mandatory, refer to 2014 Safety Requirements.**

Course Dates**October 28-30, 2014**

Local Union 602 Training Center

8421 Ardwick Ardmore Road; Landover, MD 20785

430 Authorized Testing Representative (ATR) Training

This course is designed to provide participants an understanding of the fundamentals of the UA Welder Certification Program. Participants will be able to perform the duties and responsibilities of an ATR as defined in the program, from administrative functions to performing visual inspection of welded coupons to determine their acceptability and verifying compliance of radiographic examinations to the program. It is recommended to bring a calculator to this class for figuring qualification ranges of welders. To achieve the position of ATR an individual must complete and satisfy the mandatory requirements: letter of recommendation from local union management, and high school diploma. This class will also serve as a refresher class for those who are already ATRs. **Students should bring a calculator to class.**

Course Dates**February 25-27, 2014**

Local Union 392 Training Center

1300 Century Circle N; Cincinnati, OH 45246

November 18-20, 2014

Local Union 625 Training Center

3601 James Street, Charleston, WV 25387

493 AWS-CWI® Preparation Course and Exam*Prerequisite: 5 Years Welding Experience***All fees are the responsibility of the student. See fee schedule.**

This course will provide welding inspectors with the knowledge of welding and inspection fundamentals useful on the jobsite. It involves great responsibility and remarkable skill demonstration. The CWI® is widely recognized, both nationally and internationally. This intensive course covers information on nondestructive examination methods applicable to common welding processes and general provisions of API 1104, which includes qualification of welding procedures for welds containing filler-metal additions, design and preparation of the joint for production welding, nondestructive testing and acceptance standards, and automatic welding with and without filler-metal additions. You must be a high school graduate or hold an equivalency diploma and have a minimum of five (5) years' experience in the welding field.

**493 AWS-CWI® Preparation Course and Exam -
(continued)****Course Dates****March 15-22, 2014**Local Union 449 Training Center
1459 Woodruff Street; Pittsburgh, PA 15220**June 21-28, 2014**Local Union 602 Training Center
8421 Ardwick-Ardmore Road; Landover, MD 20785**September 20-27, 2014**Local Union 565 Training Center
593 Cedar Grove Road; Parkersburg, WV 26104**December 13-20, 2014**Local Union 157 Training Center
8707 East Milner Avenue; Terre Haute, IN 47803**602 NDE for Process Piping***Prerequisite: Course 600 and be a Certified Welding Inspector***All fees are the responsibility of the student. See fee schedule.**

This course will focus on the principles and application of all of the NDE techniques used for process piping including visual, magnetic particle, liquid penetrant, x-ray, and ultrasonic. A particular emphasis will of course be placed on how these techniques are used to detect weld discontinuities and defects.

Course Date**May 12-16, 2014**Ohio State University
Columbus, OH**601 Weld Metallurgy, Defects and
Discontinuities for Process Piping Materials***Prerequisite: Course 600 and be a Certified Welding Inspector***All fees are the responsibility of the student. See fee schedule.**

This course would build off of course 600, but focus on the weld metallurgy of important B31.3 materials such as plain carbon and low alloy steels, stainless/corrosion resistant steels, and nickel base alloys. In addition to building an understanding of metallurgical issues pertaining to the welding of these materials, the course will include an emphasis on the typical defects and discontinuities that are encountered during welding, and how they can be prevented.

Course Date**May 12-16, 2014**Ohio State University
Columbus, OH

357 Tip Tig Wire Feed Welding Process

This “train-the-trainer” course is specifically designed for local union welding instructors that provide a detail 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 covers the safety, operation, technology and equipment set-up associated with this type of advanced welding system. In addition, the course covers process variables, system control functions and weld parameter selection for a variety of material. Enrollment shall be limited to local union instructors with a minimum of 5 years’ experience with the GTAW and GMAW welding processes. **Students must bring their own welding hoods, jackets, and gloves. Proper work clothing and safety shoes are mandatory, refer to 2014 Safety Requirements.**

Course Date**January 21-23, 2014**Local Union 421 Training Center
285 Litaker Lane; Concord, NC 28079**430 Authorized Testing Representative (ATR) Training**

This course is designed to provide participants an understanding of the fundamentals of the UA Welder Certification Program. Participants will be able to perform the duties and responsibilities of an ATR as defined in the program, from administrative functions to performing visual inspection of welded coupons to determine their acceptability and verifying compliance of radiographic examinations to the program. It is recommended to bring a calculator to this class for figuring qualification ranges of welders. To achieve the position of ATR an individual must complete and satisfy the mandatory requirements: letter of recommendation from local union management, and high school diploma. This class will also serve as a refresher class for those who are already ATRs. **Students should bring a calculator to class.**

Course Dates**September 23-25, 2014**Local Union 211 Training Center
2507 Old Galveston Road, Houston, TX 77017**December 9-11, 2014**Local Union 198 Training Center
5655 Greenwell Street, Baton Rouge, LA 70805**462 Valve Repair Instructor Course***Prerequisite: EPRI General Valve Certification*

This course covers methods in teaching valve repair, advanced valve repair, and valve recertification to apprentices and journeymen with an emphasis on classroom instruction, textbook materials, and hands-on experience. This intensive course prepares instructors for the challenges associated with valve repair. Topics include the disassembly, inspection, repair and reassembly of different types of valves found in power plants and other industrial facilities. In the process, UA instructors will learn how to use valve reconditioning equipment, and become skilled in the application of precision measuring devices (e.g. micrometers, dial indicators). This course will also focus on the *Valve Repair Student Manual*, how to develop course outlines and schedules for the valve class, how and what lab to set up, equipment and tools required, proper record keeping, test taking with Blackboard™, and a refresher on precision measuring tools. There will be a practical exam conducted during the course. The student upon returning to their training center will have 30 days to complete the written portion on Blackboard™ by passing both portions will certify the individual with the Advanced Valve Certification.

Required text for this course: *Advanced Valve Repair Student Manual & CD; “Recommended” Basic Valve Repair Manual*

Course Date**November 3-7, 2014**Local Union 60 Training Center
2541 N. Armoult Road; Metairie, LA 70002**480 Radiographic Film Interpretation**

This course covers the basic skills and techniques required when viewing and interpreting radiographic films (x-rays). The course will involve theory and hands-on practical labs interpreting x-ray films of piping welds. The course instructors are highly experienced in radiographic examination and its uses in the inspection of piping welds and materials. It is recommended class attendees hold the AWS CWI® credential. **All courses are train-the-trainer and center around methods of teaching. Only a small portion of the course will involve hands-on training, although proper work clothing and safety shoes are mandatory, refer to 2014 Safety Requirements.**

Course Date**October 27-29, 2014**Local Union 286 Training Center
814 Airport Blvd, Austin, TX 78702

493 AWS-CWI® Preparation Course and Exam*Prerequisite: 5 Years Welding Experience***All fees are the responsibility of the student. See fee schedule.**

This course will provide welding inspectors with the knowledge of welding and inspection fundamentals useful on the jobsite. It involves great responsibility and remarkable skill demonstration. The CWI® is widely recognized, both nationally and internationally. This intensive course covers information on nondestructive examination methods applicable to common welding processes and general provisions of API 1104, which includes qualification of welding procedures for welds containing filler-metal additions, design and preparation of the joint for production welding, nondestructive testing and acceptance standards, and automatic welding with and without filler-metal additions. You must be a high school graduate or hold an equivalency diploma and have a minimum of five (5) years' experience in the welding field.

Course Dates**January 11-18, 2014**

Local Union 150 Training Center
1211 Telfair Street; August, GA 30901

March 29-April 5, 2014

Local Union 798 Training Center
4823 S. 83rd East Avenue; Tulsa, OK 74147

September 6-13, 2014

Local Union 100 Training Center
3541 W. Miller Road; Garland, TX 75041

October 11-18, 2014

Local Union 60 Training Center
2541 N. Arnoult Road; Metairie, LA 70002

269 Victaulic Firelock Fire Protection Valves

Participants will gain a complete working knowledge of the installation, troubleshooting, and repair of Victaulic FireLock Protection Valves, and will develop the essential skills to train UA apprentices and journeyworkers in these subjects. Victaulic will issue certifications for those who successfully complete the course.

Course Date**March 2014**

Local Union 268 Training Center
1544 S. 3rd Street, St. Louis, MO 63104

357 Tip Tig Wire Feed Welding Process

This “train-the-trainer” course is specifically designed for local union welding instructors that provide a detail 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 covers the safety, operation, technology and equipment set-up associated with this type of advanced welding system. In addition, the course covers process variables, system control functions and weld parameter selection for a variety of material. Enrollment shall be limited to local union instructors with a minimum of 5 years’ experience with the GTAW and GMAW welding processes. **Students must bring their own welding hoods, jackets, and gloves. Proper work clothing and safety shoes are mandatory, refer to 2014 Safety Requirements.**

Course Date**September 16-18, 2014**

Local Union 441 Training Center
1330 E. First Street; Wichita, KS 67214

430 Authorized Testing Representative (ATR) Training

This course is designed to provide participants an understanding of the fundamentals of the UA Welder Certification Program. Participants will be able to perform the duties and responsibilities of an ATR as defined in the program, from administrative functions to performing visual inspection of welded coupons to determine their acceptability and verifying compliance of radiographic examinations to the program. It is recommended to bring a calculator to this class for figuring qualification ranges of welders. To achieve the position of ATR an individual must complete and satisfy the mandatory requirements: letter of recommendation from local union management, and high school diploma. This class will also serve as a refresher class for those who are already ATRs. **Students should bring a calculator to class.**

430 Authorized Testing Representative (ATR) Training (continued)Course Date**January 21-23, 2014**

Local Union 464 Training Center
13505 B Street, Omaha, NE 68144

June 10-12, 2014

Local Union 533 Training Center
9876 Hickman Mills Drive, Kansas City, MO 64137

462 Valve Repair Instructor Course*Prerequisite: EPRI General Valve Certification*

This course covers methods in teaching valve repair, advanced valve repair, and valve recertification to apprentices and journeyworkers with an emphasis on classroom instruction, textbook materials, and hands-on experience. This intensive course prepares instructors for the challenges associated with valve repair. Topics include the disassembly, inspection, repair and reassembly of different types of valves found in power plants and other industrial facilities. In the process, UA instructors will learn how to use valve reconditioning equipment, and become skilled in the application of precision measuring devices (e.g. micrometers, dial indicators). This course will also focus on the *Valve Repair Student Manual*, how to develop course outlines and schedules for the valve class, how and what lab to set up, equipment and tools required, proper record keeping, test taking with Blackboard™, and a refresher on precision measuring tools. There will be a practical exam conducted during the course. The student upon returning to their training center will have 30 days to complete the written portion on Blackboard™ by passing both portions will certify the individual with the Advanced Valve Certification.

Required text for this course: *Advanced Valve Repair Student Manual & CD; “Recommended” Basic Valve Repair Manual*

Course Date**January 13-17, 2014**

Local Union 125 Training Center
5101 J Street SW, Cedar Rapids, IA 52404

474 OSHA 502 Update for Construction Industry Outreach Trainers

Prerequisite: Course 470, OSHA 500

This course is designed for instructors who have completed the Basic Instructor Course in Occupational Safety and Health Standards for the Construction Industry (OSHA 500) Course. OSHA requires that these instructors stay current on OSHA standards and they must take the OSHA 502 update course every four years to maintain their status. Course participants will be provided updates on such topics as OSHA construction standards, policies and regulations. After completion of the course, each participant will receive a certificate. OSHA will be notified that they have completed this course and met their obligation to stay current.

Required text for this course: *OSHA 502 Training Binder; CFR 1926; Disaster Response DVD*

Course Date**June 17-19, 2014**

Local Union 33 Training Center
2501 Bell Avenue, Des Moines, IA 50321

479 UA Machine Cutting, Severing & Beveling

This course covers the proper methods of machining the various joint designs used in the piping industry today. Each instructor will be trained in the Mathematical Set Back Formulas for these joint designs required by the different welding processes in our industry. This course will train the UA instructor in the safety, setup, operation and minor repair of each of the following machining equipment: 204B Bevelmaster, 206B Bevelmaster, 206B Flange Facer, 206B Elbow Mandrel, 212B Single Point, 606SB Clamshell, Counterbore II, and 616SB Clamshell. **Proper safety shoes, safety glasses and work clothing are mandatory, refer to 2014 Safety Requirements. Class is daily from 7:00am to 5:00pm.**

Course Date**May 19-23, 2014**

Local Union 125 Training Center
5101 J Street SW, Cedar Rapids, IA 52404

491 Basic Non Destructive Testing

This course covers the basic Non-Destructive Examination (NDE) methods of Liquid Penetrate (PT) using the solvent removable visible dye technique, and Magnetic Particle (MT) using the dry particle electromagnetic yoke technique. The course will involve theory and hands-on practical application of both the PT and MT methods. It is recommended class attendees hold the AWS CWI® credential. A certification will be issued upon completing all paperwork, including logs demonstrating experience and passing of the exams given at the end of this course. **Proper work clothing and safety shoes are mandatory, refer to 2014 Safety Requirements.**

Course Date**November 17-21, 2014**

Local Union 400 Training Center
2700 Northridge Drive, Kaukauna, WI 54130

493 AWS-CWI® Preparation Course and Exam

Prerequisite: 5 Years Welding Experience

All fees are the responsibility of the student. See fee schedule.

This course will provide welding inspectors with the knowledge of welding and inspection fundamentals useful on the jobsite. It involves great responsibility and remarkable skill demonstration. The CWI® is widely recognized, both nationally and internationally. This intensive course covers information on nondestructive examination methods applicable to common welding processes and general provisions of API 1104, which includes qualification of welding procedures for welds containing filler-metal additions, design and preparation of the joint for production welding, nondestructive testing and acceptance standards, and automatic welding with and without filler-metal additions. You must be a high school graduate or hold an equivalency diploma and have a minimum of five (5) years' experience in the welding field.

Course Date**May 10-17, 2014**

Local Union 441 Training Center
1330 E. First Street; Wichita, KS 67214

269 Victaulic Firelock Fire Protection Valves

Participants will gain a complete working knowledge of the installation, troubleshooting, and repair of Victaulic FireLock Protection Valves, and will develop the essential skills to train UA apprentices and journeyworkers in these subjects. Victaulic will issue certifications for those who successfully complete the course.

Course Dates**TBA**

Local Union 483 Training Center
2531 Barrington Court, Hayward, CA 94545

TBA

Local Union 709 Training Center
12140 Rivera Road, Suite B, Whittier, CA 90606

357 Tip Tig Wire Feed Welding Process

This “train-the-trainer” course is specifically designed for local union welding instructors that provide a detail 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 covers the safety, operation, technology and equipment set-up associated with this type of advanced welding system. In addition, the course covers process variables, system control functions and weld parameter selection for a variety of material. Enrollment shall be limited to local union instructors with a minimum of 5 years’ experience with the GTAW and GMAW welding processes. **Students must bring their own welding hoods, jackets, and gloves. Proper work clothing and safety shoes are mandatory, refer to 2014 Safety Requirements.**

Course Date**April 15-17, 2014**

Local Union 32 Training Center
595 Monster Road SW, Renton, WA 98057

371 Crane Signalperson Practical Examiner Accreditation

This is an intensive course that includes Signalperson Candidate Training, Signalperson Certification Written and Practical Examinations, and the Signalperson Practical Examiner Accreditation Workshop. The course covers all the pertinent rules specified in OSHA Federal Regulation 29 CFR Part 1926 - Cranes and Derricks in Construction, and in ASME Standards B30.5, B30.3 and B30.23. Also covered are theoretical and practical components of signaling, and will use a combination of animations and videos to illustrate all the standard hand signals, crane characteristics, and crane limitations. Numerous examples and practice scenarios are included in the course, so the instructor can practice until signaling becomes second nature. During the Practical Examiner Accreditation Workshop the candidate’s performance as an examiner will be observed and evaluated, and both a written and practical exam will be taken. Instruction will also include a comprehensive review of National Commission for the Certification of Crane Operators (NCCCO) policies and procedures, as well as in-depth coverage of the computer-delivered Signalperson Practical Exam. At the conclusion of these sessions, successful instructors will have obtained their NCCCO Signalperson Certification, as well as their NCCCO accreditation as a Signalperson Practical Examiner that authorizes them to administer NCCCO Signalperson Practical exams nationwide. The NCCCO Accreditation is good for five (5) years.

Required text for this course: *Signal Person Training Student and Instructor Manual with CD*

Course Date**March 17-19, 2014**

A&J Training Center
7850 Haskell Avenue; Van Nuys, CA 91406

430 Authorized Testing Representative (ATR) Training

This course is designed to provide participants an understanding of the fundamentals of the UA Welder Certification Program. Participants will be able to perform the duties and responsibilities of an ATR as defined in the program, from administrative functions to performing visual inspection of welded coupons to determine their acceptability and verifying compliance of radiographic examinations to the program. It is recommended to bring a calculator to this class for figuring qualification ranges of welders. To achieve the position of ATR an individual must complete and satisfy the mandatory requirements: letter of recommendation from local union management, and high school diploma. This class will also serve as a refresher class for those who are already ATRs. Students should bring a calculator to class.

Course Date**April 15-17, 2014**

Local Union 32 Training Center
595 Monster Road SW; Renton, WA 98057

491 Basic Non Destructive Testing

This course covers the basic Non-Destructive Examination (NDE) methods of Liquid Penetrate (PT) using the solvent removable visible dye technique, and Magnetic Particle (MT) using the dry particle electromagnetic yoke technique. The course will involve theory and hands-on practical application of both the PT and MT methods. It is recommended class attendees hold the AWS CWI® credential. A certification will be issued upon completing all paperwork, including logs demonstrating experience and passing of the exams given at the end of this course. **Proper work clothing and safety shoes are mandatory, refer to 2014 Safety Requirements.**

Course Date**March 10-14, 2014**

Local Union 469 Training Center
2950 W Thomas Road, Phoenix, AZ 85017

493 AWS-CWI® Preparation Course and Exam

Prerequisite: 5 Years Welding Experience

All fees are the responsibility of the student. See fee schedule.

This course will provide welding inspectors with the knowledge of welding and inspection fundamentals useful on the jobsite. It involves great responsibility and remarkable skill demonstration. The CWI® is widely recognized, both nationally and internationally. This intensive course covers information on nondestructive examination methods applicable to common welding processes and general provisions of API 1104, which includes qualification of welding procedures for welds containing filler-metal additions, design and preparation of the joint for production welding, nondestructive testing and acceptance standards, and automatic welding with and without filler-metal additions. You must be a high school graduate or hold an equivalency diploma and have a minimum of five (5) years' experience in the welding field.

Course Dates**June 7-14, 2014**

Local Union 26 Training Center
780 Chrysler Drive; Burlington, WA 98233

July 12-19, 2014

Local Union 342 Training Center
935 Detroit Avenue; Oakland, CA 94518

These classes are provided through the Blackboard™ Learning System at Washtenaw Community College. Participants must have high speed Internet access and be familiar with a computer, navigating the Internet and using email. Participants with little or no experience should enroll and complete course Introduction to Online Learning offered by WCC at no cost to UA members.

To enroll through the Blackboard™ Learning System go to:

www.wccnet.edu/uauniversity/reginfo.php.

103 Planning, Teaching & Assessing Effective Lessons: Advance

This course builds on the lessons and skills learned in 102 and practiced in the RTAs. Instructors will focus on developing reading and video guides as a way to expand their knowledge of lesson planning. Instructors will also learn how to ask questions to get students involved in discussion, how to support their learning of large amounts of information (such as codes), and how to get them to participate actively in classes. The Instructor will continue to practice using technology in the classroom and designing in-depth learning assessments. As in 101 and 102, instructors should leave this course with specific lesson plans and assessments to use in teaching at their local union. **Instructors should also bring course materials for a course they expect to teach.**

Reflective Teaching Assignments (RTAs)

As with previous RTA's, upon returning to the local union training center, the instructor will be expected to demonstrate the specific skills in teaching and assessment from 103 and write a short assessment, noting changes. These are required assignments and must be submitted to the online portfolio.

Course Date

March 3 – April 14, 2014

105 Problem Solving & Innovations in Trade Teaching

Prerequisite: Course 104, Techniques in Interaction & Discussion (Those enrolled in ITP prior to 2010)

UA instructors taking this course will focus on solving training problems and implementing innovative solutions in the local school. Topics include: problem solving techniques to analyze teaching challenges, recognizing student learning disabilities, the nature of performance evaluation, and implementing innovative solutions in the local school. Instructors should come prepared to share innovations and challenges from their local school, and each UA instructor must have a valid email address and UA card number.

Course Dates

April 7 – May 19, 2014

October 6 – November 17, 2014

228 Online Teaching Techniques Using Blackboard™

Prerequisite: Must have computer experience

This course covers the use of the Blackboard™ Course Management System and Internet in teaching. Forums, online teaching, chat rooms, online and Blackboard™ assignments, email and other features will be explained and demonstrated. These teaching techniques can be used with courses offered online or to supplement traditional classroom courses.

Course Dates

March 3 – April 14, 2014

October 6 – November 17, 2014

382 Teaching the HVACR UA Star Certification

All fees are the responsibility of the student and must be paid by the first day of class. See fee schedule.

This course will familiarize you with the UA STAR HVACR Technician Certification exam and prepare you to take the exam through your local union. All of the categories covered by the exam will be reviewed online. Using the Blackboard™ On-line Training Platform, you will complete reading assignments, posts questions to other participants and your instructors and take practice quizzes. You will have access to online material to help you prepare your own review classes at your local union. The NITC proctored UA STAR HVACR Certification exam will be conducted by your local union.

Course Dates

March 3 – April 14, 2014

October 6 – November 17, 2014

442 Refrigerant Controls Online Course

By the end of this course, students will have the skills to understand the design concept and operational approach of refrigeration controls. Special emphasis will be placed on troubleshooting and system diagnostics. The course is designed for people with little or no experience with refrigeration systems although experienced technicians would benefit from the review.

Required text for this course: *Refrigerant Controls Manual*

Course Date

February 3 – April 28, 2014

444 Electrical Controls Online Course

This course is designed to help you become familiar with Electrical Controls as they apply to air conditioning and refrigeration. The following will be included in this course: applied controls and control circuits, types of control action, sequence of operation and troubleshooting. Also covered will be discharge pressure control, expansion devices, regulators and accessories.

Required text for this course: *Electrical Controls for Mechanical Equipment Service*

Course Date

September 15 – December 8, 2014

452 Introduction to Computer Aided Drafting (CAD)

This course is designed as an introduction to Computer Aided Drafting (CAD) and the CAD environment. Emphasis is placed upon the fundamentals of CAD software and the creation of two-dimensional CAD piping drawings. AutoCAD drafting software and Windows 2000 or Windows XP operating systems are utilized. It is suggested that each student have a USB thumb drive to use with this course.

Required text for this course: *AutoCAD, Level 1 Manual*

Course Dates

February 3 – April 14, 2014

September 8 – December 1, 2014

522 Labor History and the UA: 1800 to the Present

Labor History and the UA is a class covering the struggles of the labor movement from 1800 to present. This class will cover various Labor History and United Association events and people throughout time and they have had an impact and role in labor history.

Required text for this course: *Labor in America (Melvyn Dubofsky & Foster Rhea Dulles); Skilled Hands, Strong Spirits (Grace Palladino); The Rise of the United Association (Martin Segal); DVD published by AFLCIO Building Construction Trades Department "A Century of Leadership - Skilled Hands Strong Spirits 100 Year Anniversary" (1908 - 2008)*

Course Dates

February 3 – April 14, 2014

October 6 – December 15, 2014

Note: You must bring the required material to class. If you do not have this material, the following items are available for purchase through the [UA/IPT Bookstore](#).

<u>Course # – Description</u>	<u>Required Material</u>
299 - Industrial Instrument Technician . . . . .	.Instrumentation Manual
331 - Medical Gas Refresher . . . . .	.NFPA-99 2012 Edition Health Care Facilities; NFPA 2012 Edition Medical Gas and Vacuum Systems Installation Handbook; ASSE Series 6000 Medical Gas Professional Qualifications Standard
332 - Administration of an Accelerated Welder Training Program . . . . .	.Gas Tungsten Set; Job Safety Manual; Oxy-Fuel Cutting & Welding; Shielded Metal Arc Welding
419 - Industrial Rigging Technologies . . . . .	.Rigging Manual; IPT Crane and Rigging Handbook
420 - Industrial Rigging Certification for Instructors . . . . .	.Rigging Manual; IPT Crane and Rigging Handbook
442 - Refrigerant Controls Online Course . . . . .	.Refrigerant Controls Manual
444 - Electrical Controls Online Course . . . . .	.Electrical Controls Set
452 - Introduction to Computer Aided Drafting (CAD) . . . . .	.AutoCAD, Level 1 Manual; AutoCAD Software
462 - Valve Repair Instructor Course . . . . .	.Valve Repair Student Manual (R/06); Advanced Valve Repair Manual
468 - Medical Gas Instructor . . . . .	.NFPA-99 2012 Edition Health Care Facilities; NFPA 2012 Edition Medical Gas and Vacuum Systems Installation Handbook; ASSE Series 6000 Medical Gas Professional Qualifications Standard
470 - OSHA 500 Trainer Course for the Construction Industry* . . . . .	.OSHA 500 Manual; CFR 1926; Disaster Response DVD; OSHA Six-Disk Set
471 - OSHA 510 OSHA Standards for the Construction Industry* . . . . .	.OSHA 510 Training Binder; CFR 1926; Disaster Response DVD
474 - OSHA 502 Update for Construction Industry Outreach Trainers* . . . . .	.OSHA 502 Training Binder; CFR 1926; Disaster Response DVD
476 - Orbital Tube Welding . . . . .	.Orbital Welding CD
493 - AWS-CWI® Preparation Course and Exam** . . . . .	.API 1104 (20th Edition) Welding Pipelines & Related Facilities
522 - Labor History and the UA Part One: 1800 to the Present . . . . .	.Labor in America (Melvyn Dubosfky & Foster Rhea Dulles); Skilled Hands, Strong Spirits (Grace Palladino); The Rise of the United Association (Martin Segal); DVD published by AFLCIO Building Construction Trades Department “A Century of Leadership - Skilled Hands Strong Spirits 100 Year Anniversary” (1908 - 2008)

Notes: *OSHA material is not sold directly to students. It is sent to the course location and the instructor distributes it along with a purchase order which is filled out by student and returned to the instructor, who forwards the purchase order to the International Pipe Trades Bookstore.

**To purchase the API 1104 (20th Edition) Welding Pipelines & Related Facilities book for Course 493, AWS-CWI® Preparation Course and Exam, call IHS Global Engineering Documents at (877) 413-5184. The cost is \$286.00.

Purchase Material for all Regional Training Classes at:
 International Pipe Trades Joint Training Committee (Bookstore)
 687-B Commerce Drive
 Upper Marlboro, MD 20774
 Telephone: 301-218-1241
 Fax: 301-218-8961
 E-Mail: iptbookstore@uanet.org

WEB RESOURCES

(To get the IP address for the websites listed below, go to https://uanet.org/regional_training.asp/)

[American Society of Safety Engineers \(ASSE\)](#)
[Ann Arbor Area Convention & Visitors Bureau](#)
[Blackboard™ Help Page](#)
[Blackboard™ Login](#)
[Local Union Training Directory Lookup](#)
[JATC Bookstore](#)
[Occupational Safety & Health Administration \(OSHA\)](#)
[National Inspection Testing Certification](#)
[UA Course Registration](#)

REGISTRAR'S OFFICE

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International Pipe Trades
Joint Training Committee (Bookstore)
 Dianne Lash, Manager
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 Fax: (301) 218-8961

WCC UA Programs Administrator

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WCC Logistics Director of UA Programs & Services

Kim Billings, Logistics Director
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Ann Arbor Area Convention & Visitors Bureau

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 Fax: (734) 995-7283

Richard Benkowski
Local Union 47
Northwest Pennsylvania

William Boyd
Local Union 597
Chicago, IL

Alfred Caron
Local Union 51
Providence, RI

Jim Clark
Local Union 400
Appleton, WI

Sean Cleary
Local Union 524
Scranton, PA

Jay Clevenger
Local Union 26
Western Washington

Larry Coleman
Local Union 597
Chicago, IL

Clark Cruickshank
Local Union 488
Edmonton, AB, Canada

Rose Culver
Washtenaw Community College
Ann Arbor, MI

Robert Derby
Local Union 174
West Michigan

Thomas (TJ) Dodd
Local Union 286
Austin, TX

Elwood "Ken" Eden
Local Union 430
Tulsa, OK

Justin Forni
Local Union 412
Albuquerque, NM

Larry Germaine
Local Union 125
Cedar Rapids, IA

Dennis L. Gervais
Local Union 552
Windsor, ON, Canada

Tim Gilligan
Local Union 537
Boston, MA

Leroy Givens
Local Union 630
West Palm Beach, FL

Dale Glavin
Local Union 449
Pittsburgh, PA

Lester Guilfoyle
Local Union 475
Newark, NJ

Julie Henderson
Local Union 177
Brunswick, GA

David Hintz
Local Union 597
Chicago, IL

Paul Kadlec
Local Union 597
Chicago, IL

Laurel Keller
Washtenaw Community College
Ann Arbor, MI

Patrick Lang
Local Union 168
Marietta, OH

David Lavoie
Local Union 51
Providence, RI

Thomas Ley
Local Union 449
Pittsburgh, PA

Gary Lumsden
Local Union 250
Los Angeles, CA

Ted Luszczynski
Local Union 636
Detroit, MI

Mike Magennis
Local Union 441
Wichita, KS

David Marland
Local Union 51
Providence, RI

Jon Marland
Local Union 51
Providence, RI

John Marsden
Local Union 230
San Diego, CA

Steve Martin
Local Union 10
Richmond, VA

Paul McGrath
Local Union 537
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Thomas G. Murphy
Local Union 520
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Rita Neiderheiser
Local Union 669
Columbia, MD

Jackie Nordeen, Jr.
Local Union 150
Augusta, GA

Buster Perry
Local Union 184
Paducah, KY

Mike Pelegrino
Local Union 597
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Carl Phipps
Local Union 94
Canton, OH

Robert Kelly Robinson
Local Union 552
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Joseph Rodenkirk
Local Union 125
Cedar Rapids, IA

Randy Rovira
Local Union 60
New Orleans, LA

John W. Russell, Jr.
Local Union 5
Washington, DC

George Schalk
Local Union 22
Buffalo, NY

Michael Schmidt
Local Union 13
Rochester, NY

Randall Schnabelrauch
Local Union 190
Ann Arbor, MI

James J. Smith
Local Union 25
Rock Island, IL

Jason Steele
Local Union 533
Kansas City, MO

Con Sullivan
Local Union 41
Butte, MT

John Sullivan
Local Union 1
New York, NY

Herman Updike
Local Union 10
Richmond, VA

Joseph Wartelle
Local Union 398
Pomona, CA

Thomas Willson
Local Union 357
Kalamazoo, MI

Jim Wilson
Local Union 636
Detroit, MI

James Young
Local Union 495
Cambridge, OH

Rich Zimmer
Local Union 449
Pittsburgh, PA

Mike Rothmier
Local Union 669
Columbia, MD

pipe fitting



plumbing



service tech

welding



sprinkler fitting



