

# Apprentice & Journeymen Training Trust Fund

Journey Level Course Catalog

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# **Computer Classes**

#### **Basic Computers**

This is a very important course for those interested in entering Computer Aided Design (CAD), but have very little computer experience.

This course is designed to teach students how to navigate within a computer.

The instructor will touch on topics such as:

- What is on the desktop
- Finding and opening programs
- Working with the control panel
- Working with files
- E-mail

There is no certification given for this class, but the knowledge you come away with will serve you for years to come.

#### Computer Aided Design (CAD) I

Pre-requisite: Basic computer knowledge

This course is designed as an introduction to Computer Aided Design and the CAD environment.

Emphasis is placed on the fundamentals of CAD software and the creation of two-dimensional CAD piping drawings.

AutoCAD drafting software and Windows XP Operating System are utilized in this class.

#### **Computer Aided Design (CAD) II**

Pre-requisite: Computer Aided Design (CAD) I

This course delves deeper into the uses of CAD including: placing text on drawings, drawing display options, layouts, plotting & printing, basic editing commands, automatic editing, polylines & multilines, basic dimensioning practices, creating symbols, three-dimensional drawings, geometric objects and much more!

# **Drawing Classes**

#### **Drawing I**

This course will give students the opportunity to become familiar with reading and understanding mechanical drawings. Students will learn to break down piping drawings into smaller, more detailed views (isometric drawings).

Students will also learn how to use these isometric drawings for material take offs and fabrications.

#### **Drawing II**

Pre-requisite: Drawing I

This course will further educate students on reading and understanding mechanical and isometric drawings.

### <u>Instrumentation Classes</u>

#### **Basic Instrumentation**

The goals of this course are to cover the basics of instrumentation:

- Basic electricity
- Tube bending
- Job safety
- Procedures for installing instruments used for the process control applications
- Specific process measuring instruments

These skills are required by anyone who wishes to work in this rapidly changing industry!

Certification is given after completing Advanced Instrumentation, E.P.R.I. and passing the exam.

#### **Advanced Instrumentation**

Pre-requisite: Basic Instrumentation

In this course, students will learn:

- How to interpret all types of instrumentation drawings
- Principle of operation
- Function and configuration of instruments in a system
- Rapidly identify measured variables in a loop

The student will also learn how to identify problems and fix them with basic troubleshooting steps and will build control circuits to understand the electrical workings.

Certifications are issued after taking the E.P.R.I. class and passing the exam.

#### **E.P.R.I.**

Pre-requisites: Basic & Advanced Instrumentation

This course expands on the function of instruments and their principles of operation. There is extensive instruction on calibration, proper documentation and how to correctly fill it out. The instructor will discuss emergency shutdown systems, control valves (types and principle of operation), fiber optics, process procedures and troubleshooting.

Upon successful completion of this class, students are eligible to take the Level I Instrumentation Technician Exam.

# Pipe Fitting Classes

#### **Torch Basics for Oxy/Acetylene**

This class covers basic torch and pipe preparation skills such as:

- Cutting
- Beveling
- Grinding

#### **100% X-Ray Fit Up**

Pre-requisite: Torch Basics for Oxy/Acetylene

- Develop skills to bevel cut carbon steel pipe manually to 37 degrees using oxy/acetylene gases
- Develop skills to cut carbon steel pipe using H & M auto beveling pipe machine to 37 degrees
- Use close tolerance pipefitting skills when using blueprints for layout
- Use and care of pins, levels and high low gauges
- Proper prep in grinding pipe surfaces
- Proper grinding of tacks and root beads

#### Oxy/Acetylene

Pre-requisite: Torch Basics for Oxy/Acetylene

Students will learn how to gas weld and use the oxygen and acetylene cutting outfit. Students will also be taught how to make straight bevel cuts on pipe and cut round holes to a selected size.

# Safety Classes

#### Cal and Federal OSHA 30

#### Mandatory topics include:

- Introduction to OSHA and Cal OSHA
  - Cal/OSHA organization, Employer/Employee Rights & Responsibilities, Whistleblower Rights, Recordkeeping and Reporting basics
  - o Inspections, citations and penalties
  - Construction permits
  - Competent person
  - o General Safety and Health Provisions
  - o Value of Safety and Health
  - Cal/OSHA and OSHA website and review of the Cal/OSHA poster information
- Cal/OSHA Focuses on Four Hazards
  - o Fall Protection
  - o Electrical
  - Struck by (e.g. falling objects, trucks, cranes, etc.)
  - o Caught in/between (trench hazards, unguarded machinery, etc.)
- Health Hazards in Construction
  - Noise
  - o Hazard communication and access to medical information
  - o Lead
  - o Silica
  - Asbestos
  - Heat stress
  - Confined spaces
- Ergonomics (repetitive motion and vibration hazards)

#### **Competent Person**

This course is intended to do the following:

- Provide extensive training for supervisors, foremen and other employees on OSHA's Subpart (P) regulations
- Demonstrate correct soil testing procedures
- Identify hazards associated with trenching and excavations
- Understand the different types of protective systems
- Provide information, rules, regulations and methods needed in order to be a "competent person" or to perform all excavation work safely

#### **Confined Space Training**

This course teaches workers about the most common hazards found in confined spaces and about the OSHA standard that addresses these hazards. Training will include safe entry procedures, monitoring principles, entry permits, ventilation, personal protective equipment and roles of the entrant, attendant and entry supervisor.

The course includes hands-on training and the use of PPE.

#### First Aid/CPR (Covne)

Adult Basic CPR – Prevention and initial care of cardiac emergencies including CPR, automated external defibrillation, angina pectoris, stroke and foreign body airway obstruction.

Pediatric Basic CPR – Deals with infants and children up to 8 years of age. Cardiac arrest in this age group is rarely primarily of cardiac origin. It is more commonly caused by respiratory or circulatory failure resulting from a variety of injuries or medical diseases. This course places special emphasis on the causes and prevention of pediatric accidental injuries and death.

Basic First Aid - Prevention and initial care for emergency moving of injured patients, wounds/bleeding, traumatic shock, musculoskeletal injuries, burns, eye injuries, drowning, allergic emergency, asthma, fainting, diabetic emergencies, drug overdose, poisoning, seizures, temperature related problems, insect stings/bites, spider bites, venomous snake bites, dental injuries and suspension trauma.

The First Aid card is good for 3 years. Adult/Pediatric CPR cards are good for 1 year. Upon expiration, you must take the class to recertify.

#### **Lead/Asbestos Training**

Environmental training such as AHERA training for asbestos awareness, is for all employees who come into contact with Asbestos but do not disturb it. They must have the 2Hour Asbestos Awareness Training annually. This is almost all workers because over 3000 products are still in use, many not banned.

Lead Awareness Training is also required annually. Lead classes are required under the Hazard Communication standard and OSHA standards. Employers are required to provide annual training to employees who encounter hazards in the workplace, including Lead, which is found in many common workplace products from keys to paint.

#### **Lead Safety Training**

This 1-day (8-hr) class explains how to comply with EPA's Renovation, Repair, and Painting (RRP) Rule.

Subjects covered include: health effects, regulations, lead safe work practices, containment, cleaning and record keeping.

To become a certified renovator, an individual must successfully complete the appropriate course accredited by EPA or by a State or Tribal program that is authorized by EPA.

#### **Mine Safety & Health Administration**

Protecting those who work in our Nation's mines requires an awareness and understanding of the conditions which endanger their health and safety.

This problem was recognized as early as 1865 when a proposal for a Federal mining bureau was submitted to Congress. But it was not until 45 years later that a series of mine explosions led to passage of the Organic Act of 1910. That Act created the Bureau of Mines.

Laws passed over the next six decades enlarged the scope of legislation aimed at reducing mining hazards. The National Mine Health and Safety Academy, at Beckley, West Virginia, evolved from those laws.

Dedicated in 1976, the present Academy complex houses the largest educational institution in the world devoted solely to health and safety in mining. The Academy serves as the central training facility for federal mine inspectors and mine safety professionals from other government agencies, the mining industry, and labor.

Academy staff provides classroom instruction and produces videotapes, slide presentations, publications, and other training materials. These classes and materials cover safety and inspection procedures, accident prevention, investigations, industrial hygiene, mine emergency procedures, mining technology, management, and many other subjects. All of these items are designed with one central theme in mind to promote and enhance the health and safety of those who work in our Nation's mines.

#### **Pipeline Safety**

#### \*only available in Gardena\*

The objective of the Pipeline Safety Course is to give students a working knowledge of the fundamentals and skills of the pipeline tasks and safety.

This will prepare the helper's for entry level positions into the Pipeline Industry and give them a chance to prove the skills they have learned.

# **UA Industrial Rigging Classes**

#### **Industrial Rigging Techniques**

\*recommended before taking UA Industrial Rigging\*

This course will cover best rigging practices and the proper set-up and handson use of rigging equipment. This class is designed to prepare journey level workers to successfully perform the rigging procedures that are required in the UA practical examination. This class is a recommended pre-requisite to the UA Industrial Rigging Certification Course.

#### **Crane Signal Person**

Pre-requisite: Second year Apprentice or above

This course consists of a minimum of 24 hours training, 50% of which must be hands-on practical exercises, in addition to classroom training.

Practical exercises shall be staged using mock-ups that provide the necessary framework and safety for crane signaling activities. Following the completion of the program, a NCCC Certification Exam is provided, consisting of written and practical portions.

Upon passing both portions of the exam, the student will earn a UA/NCCC Crane Signal Person Certification which is good for 5 years.

#### **UA Industrial Rigging**

Pre-requisite: Second year Apprentice or above

Each trainee must complete a minimum of sixty (60) hours of training.

In addition to classroom training, hands-on rigging practical exercises are required to be completed by each student. Practical exercises include:

- Class conduct and safety
- Exercises staged using structural steel mock-ups
- Exercises using necessary framework & safety for rigging activities

After fully completing the training course, including the required hands-on practical exercises, the trainee will take a UA Certification Exam and must past both the Blackboard test on the computer and the performance portion.

The UA Industrial Rigging Certification is valid for five (5) years.

To recertify you must take the UA Industrial Rigging Recertification Exam and achieve a score of 80% or higher.

#### **UA Industrial Rigging Refresher Course**

This course is designed to refresh students of the information learned in the UA Industrial Rigging class in order to help them pass the Certification Exam.

## All Other Classes

#### **Backflow Prevention**

\*only available in Compton, San Diego and Santa Barbara\*

This 40-hour course (half lecture and half hands-on training) provides the testing and maintenance methods for various backflow prevention assemblies. Participants will learn how to recognize various backflow preventers and the proper procedures for testing each assembly under a variety of test conditions.

This course will review all the rules, codes and regulations on the backflow requirements.

Upon completion of the class, students can test at their local agency or county to be certified for that area.

#### **Clean Room/Orbital Welding**

This class provides training in clean room technology, as well as orbital welding certification. Students will become proficient in programming and calculations associated with the operation of the orbital welding process required in high purity piping systems.

After passing this class, you will receive a 6-month certification in Orbital Welding from NITC.

#### Fitter P.I.P.E. Certification

This course prepares students for the NITC Steamfitter-Pipefitter Certification Exam.

The exam consists of 100 multiple choice questions based on:

- Steamfitting
- Hydronics
- Science
- Instrumentation
- Air conditioning
- Refrigeration
- Piping mathematics
- Blueprint reading
- Welding
- Rigging
- Tools and safety

Students must achieve a minimum score of 75% to pass. Upon passing, you will receive a 5-year certification from NITC.

Certifications may be renewed by taking a 25 question mail-in examination within 30 days of expiration.

#### L.A. Structural Steel

Pre-requisite: You must be able to weld.

This course is designed to prepare students to pass the Los Angeles City Structural Steel written test.

Students will spend their time in the classroom learning to identify and understand weld symbols and joint design from the AWS Structural Steel Code D1.1.

#### **Medical Gas Installer/Brazing**

The instruction in this course will focus on the proper procedures and requirements needed to successfully install Medical Gas Piping Systems.

Topics will include:

- Vacuum system requirements
- Procedures for installing copper tube and fittings
- Brazing procedures

Successful completion of this class will earn the student a 3-year certification from NITC.

Renewal of this certificate can be accomplished by passing a 40 question, multiple choice written exam within 30 days of expiration.

For the brazing portion, you must either use the brazing process within 6 months (the Training Center or your contractor can fill out the continuity form) or successfully perform another brazing qualification.

#### Plumber P.I.P.E. Certification

This 40-hour course is designed to prepare students for the NITC Journey Level Plumbing Certification Exam, which will be given up completion of the class.

The Uniform Plumbing Code Book will be used to cover the following topics:

- General knowledge of the uniform plumbing code
- Sanitary drainage and vents
- Water supply and distribution
- Fuel piping
- Trade related experience questions

The Plumber P.I.P.E. Certification from NITC is valid for five (5) years. To renew your certification, contact NITC to obtain a 25 question, mail-in renewal examination.

#### Service & Repair

This class consists of 24 hours of training on the following subjects:

- Customer service
- Sewer machine training (three different kinds)
- Camera and Locate sewer line training
- Milwaukee & Sloan tool demonstrations
- Wardflex certification for corrugated stainless steel
- And much more!

#### **UA Foreman Training**

Pre-requisite: Fourth year Apprentice or above

The Foreman Training Program consists of approximately 60 hours of training.

Leadership and supervision case studies shall utilize job-site problems and solutions, adding to the realism of the training and proving especially effective for this course.

Course instruction includes:

- Job site supervisory responsibilities
- Utilization of manpower
- Job site scheduling
- Coordination meetings
- Laws and regulations pertinent to construction

A score of 80% or above must be achieved to pass this course. Testing is on the computer in class via Blackboard.

The UA Foreman certification is valid for four (4) years.

To recertify, you must either take a 3-hour up-to-date training course and retest before your certification expires or you will be automatically recertified with documented evidence that you have worked as a Foreman for at least 1,500 hours during the 4-year certification period.

#### **UA Green Systems Awareness**

Pre-requisites: Apprentices need to have started their 1<sup>st</sup> year of training No Metal Trades

The training program consists of 24-30 hours of classroom and hands-on training.

This course contains four (4) main areas of concentration:

- Core
  - o Energy efficiency
  - o Management
- Electrical
  - o Energy production
  - Lighting
- HVAC
  - Comfort heating and cooling
  - Heating systems
- Plumbing
  - Water conservation
  - o Flow control

Students must receive a score of 80% or higher in <u>each</u> of the areas to pass this course. Testing is on the computer in class via Blackboard.

The UA Green Systems Awareness Certification is valid for three (3) years. To recertify, you must take an 8-hour recertification course before expiration of your current certificate.

#### Valve Certification

Pre-requisites: Apprentices 3<sup>rd</sup> year or above

UA Journeymen who have completed a UA Apprenticeship

UA Journeymen who <u>did not</u> complete a UA Apprenticeship must have two years work

experience, providing the A&H with a letter from

their contractor or Business Manager.

Each trainee must complete a minimum of forty (40) hours of training.

In addition to classroom training, all hands-on labs are required to be completed by each student.

The labs include exercises related to:

- Classroom conduct
- Lab safety
- Fasteners and torqueing
- Precision measuring
- Gate valves
- Globe valves
- Ball and plug valves

A UA/EPRI Valve Technician Certification is valid for three (3) years.

To recertify, you must take the up-to-date UA/EPRI Exam before your current certification expires.

# Payment & Refund Policies

To sign up for a Journey Level Course, please fill out the request form at: <a href="http://www.ajtraining.org/form2.htm">http://www.ajtraining.org/form2.htm</a>

#### **Payment Policy**

If you have the required texts (or if there are no required texts) you only need to pay the \$25.00 deposit.

If you need the required texts you only need to pay the book fee.

If you are outside of District Council #16 you must pay a non-refundable fee of \$150.

You may pay online after submitting the request form or by cash, check, money order or credit card in the Compton office.

#### **Refund Policy**

If you cancel within the time frame specified, you will be refunded any monies paid.

If you attend all classes and paid the \$25.00 deposit, this will be refunded to you.

If you do not attend classes and paid the book fee, books will be mailed to your home address.

# **Training Centers**

Bakersfield Training Center 6820 Meany Avenue Bakersfield, CA 93308 (661) 589-3824

Colton Training Center 223 S. Rancho Avenue Colton, CA 92324 (909) 824-5881

Compton Training Center 18931 Laurel Park Road Compton, CA 90220 (310) 604-0892

Gardena Training Center 18349 S. Figueroa Street Gardena, CA 90248 (310) 538-4163

San Diego Training Center 6225 Federal Blvd. San Diego, CA 92114 (619) 262-7589

San Luis Obispo Training Center 3710 Broad Street San Luis Obispo, CA 93401 (805) 543-2416

Santa Barbara Training Center 93 Thomas Road Buellton, CA 93427 (805) 688-1470

Van Nuys Training Center 7850 Haskell Avenue Van Nuys, CA 91406 (818) 782-3329

Ventura Training Center 547 Sandy Circle Oxnard, CA 93030 (805) 988-1054