

# UNITED ASSOCIATION PIPEFITTERS (UAF)

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## **UAF 102 Introduction to Arc Welding, Soldering, and Brazing (3 Credits)** 3 total contact hours

This is the introductory course in welding, soldering and brazing. Topics include: safety in welding, cutting and allied processes, oxyacetylene cutting and welding, procedure for setting up oxy-fuel cutting and welding equipment. Related safety is covered in all topics. Limited to United Association students. Level I Prerequisite: Academic Reading and Writing Levels of 6

## **UAF 120 Introduction to Pipefitter Practices (3 Credits)** 3 total contact hours

This course is the introduction to pipefitting for new apprentices. Course topics include the heritage program, use and care of tools, pipe, fittings, valves, supports and fasteners, job safety and health and soldering and brazing. Related safety is covered in all topics. Limited to United Association students. Level I Prerequisite: Academic Reading and Writing Levels of 6

## **UAF 122 Drawing Interpretation and Plan Reading (2 Credits)** 2 total contact hours

This is an introductory course in drawing and reading blueprints. Course topics include: Introduction to basic drawing tools, measuring tools, lettering skills, three-view, plan view, elevation view drawings, graphic symbols for pipe fittings and valves, interpretation of technical diagrams, piping drawings, and interpretation of building plans and building specifications. Limited to United Association students. Level I Prerequisite: Academic Reading and Writing Levels of 6

## **UAF 124 Oxy Fuel Cutting and Shielded Arc Welding (2 Credits)** 2 total contact hours

This is an intermediate course in shielded metal-arc oxy-fuel cutting and welding leading to certification. Limited to United Association students. Level I Prerequisite: Academic Reading and Writing Levels of 6

## **UAF 126 Hydronic Heating and Steam Systems (2 Credits)** 2 total contact hours

This course is concerned primarily with the technical aspects of design and installation of several types of hydronic systems found in the pipe trades. Topics also include information concerning the installation of high-efficiency heating and cooling systems, low and high temperature, radiant heat and solar hot water heating systems. The steam system portion of the course includes: generating steam, installing steam piping and accessories and troubleshooting all types of steam systems. Limited to United Association students. Level I Prerequisite: Academic Reading and Writing Levels of 6

## **UAF 128 Refrigeration and Electrical Controls (2 Credits)** 2 total contact hours

This course covers the basic principles of air conditioning and refrigeration. The basic components of the refrigeration cycle are identified. Topics include operation and proper installation of the devices and equipment required to control the flow of refrigerant in air conditioning and refrigeration systems. Limited to United Association students. Level I Prerequisite: Academic Reading and Writing Levels of 6

## **UAF 130 Advanced SMAW Welding (3 Credits)** 3 total contact hours

This advanced Shielded Metal-Arc Welding course leads to shielded metal-arc welding certification. Limited to United Association students. Level I Prerequisite: Academic Reading and Writing Levels of 6

## **UAF 132 Advanced Pipefitter Topics (3 Credits)**

3 total contact hours

This course covers special topics for pipefitters. Topics may include customer relations, appearance and on-the-job conduct, and effective leadership/supervision. Related safety is included in all topics. Limited to United Association students. Level I Prerequisite: Academic Reading and Writing Levels of 6

## **UAF 134 Controls and Instrumentation (3 Credits)**

3 total contact hours

The purpose of this course is to teach the fundamentals of basic electricity and the fundamentals of electrical controls found in mechanical equipment installations such as air conditioning, heating, fuel burning, water heating and refrigeration. Safety is stressed. Limited to United Association students. Level I Prerequisite: Academic Reading and Writing Levels of 6

## **UAF 136 GTAW Welding (3 Credits)**

3 total contact hours

The Gas Tungsten Arc Welding (GTAW) process provides a method of joining difficult-to-weld metals. This course shows how this process has been adapted to the welding of carbon steel and stainless steel pipe. The course covers equipment, shielding gases, tungsten electrodes, etc. along with safe work practices unique to this type of welding. Limited to United Association students. Level I Prerequisite: Academic Reading and Writing Levels of 6