

## COURSES

### PDF WELDING

#### **WELD211      Welding I      3 Credits**

Introduces welding which includes welding safety, environmental awareness, oxy-acetylene welding, cutting, and brazing as well as shielded metal-arc.

#### **WELD212      Welding I Practice 2 Credits**

Prerequisites: WELD211 Develops the student's manual skills necessary to produce high quality gas welds and flame cuts. The student learns to set up the equipment for all phases of oxy-acetylene welding and cutting. The shielded metal-arc welding section develops entry level skills for welders. This course specifically develops basic shielded metal arc welding skills such as striking the arc, maintaining proper arc length, adjusting equipment and manipulating the electrode.

#### **WELD221      Welding II      3 Credits**

Prerequisites: WELD211 or consent of instructor Continues MTL 212 with emphasis on developing welding skills for SMAW, GMAW, GTAW production in overhead, flat, horizontal, and vertical positions.

#### **WELD222      Welding II Practice      2 Credits**

Prerequisites: WELD221 Continues MTL 212 with emphasis on developing welding skills for SMAW, GMAW, and GTAW production in overhead, flat, horizontal, and vertical positions.

#### **WELD224      Welding Projects      1 Credit**

Prerequisites: Consent of instructor Offers welding student additional supervised lab hours. Students will perfect their skills through an approved project or work toward an A.W.S. Code preparation. May be repeated to a maximum of six units.

#### **WELD231      Welding III      3 Credits**

Prerequisites: WELD221 Includes theory and practice in gas metal-arc welding and gas tungsten-arc welding.

#### **WELD232      Welding III Practice      2 Credits**

Prerequisites: WELD222B Focuses on GMAW, GTAW, and FCAW which will train the student to perform production and certification performance welding on ferrous and non-ferrous metals.

#### **WELD241      Welding IV      3 Credits**

Prerequisites: WELD231B Covers shielded metal-arc welding of pipe, flux core arc welding of pipe and introduction to A.P.I., A.S.M.E., and A.W.S. code certification. Welding of pipe provides training to develop welding skills necessary to produce high quality multipass welds on 6-inch schedule, 80 mild steel pipe in the 6 G positions, using advanced welding processes.

#### **WELD242      Welding IV Practice      2 Credits**

Prerequisites: WELD241B & WELD232B Introduces fundamental pipe welding techniques and develops basic skills for the service and transmission fields in the shielded metal-arc section. Trains welders for work in either the pressure pipe industry or transmission pipeline work using the micro-wire weld.

#### **WELD250      Welding      Certification Preparation      1 Credit**

Prerequisites: consent of instructor Introduces the student to the many certifications available by meeting the standards of the American Welding Society codes. Also, it includes instruction on code certification required by the American Petroleum Institute and the American Society of Mechanical Engineers. May be repeated for up to 12 units.

#### **WELD290      Internship in Welding      1 Credit**

Prerequisites: consent of instructor Provides the student with on-the-job, supervised and educationally directed work experience.