

## **WELDER APPRENTICESHIP COURSE SUMMARIES**

### **COURSE WDA3401: TOOLS & EQUIPMENT**

Students use workshop hand and power tools and develop proper material handling techniques.

*Prerequisite:* WDA3900: Apprenticeship Safety

### **COURSE WDA3403: OXYFUEL & PLASMA ARC**

Students develop knowledge, skills and attitudes to use oxyfuel heating and cutting equipment as well as plasma arc and gouging equipment and tools.

*Prerequisites:* WDA3900: Apprenticeship Safety, WDA3401: Tools & Equipment

### **COURSE WDA3406: ELECTRICITY & METALS**

Students develop knowledge about electricity, metals and heat treatment as related to the welding trade.

*Prerequisites:* WDA3900: Apprenticeship Safety, WDA3401: Tools & Equipment

### **COURSE WDA3407: SYMBOLS & DRAWINGS**

Students develop knowledge and skills to identify blueprint symbols and interpret drawings related to the welding trade.

*Prerequisites:* WDA3900: Apprenticeship Safety, WDA3401: Tools & Equipment

### **COURSE WDA3408: WELD FAULTS**

Students develop knowledge and skills to understand the concept of distortion, identify weld faults and understand the use of hardfacing as related to the welding trade.

*Prerequisites:* WDA3900: Apprenticeship Safety, WDA3401: Tools & Equipment

### **COURSE WDA3411: WIRE-FEED WELDING**

Students use wire-fed welding machines.

*Prerequisites:* WDA3900: Apprenticeship Safety, WDA3401: Tools & Equipment

### **COURSE WDA3413: GASES & MAINTENANCE**

Students develop knowledge and skills to select shielding gases and to maintain and troubleshoot wire-fed welding machines.

*Prerequisites:* WDA3900: Apprenticeship Safety, WDA3401: Tools & Equipment

### **COURSE WDA3415: GMAW ON MILD STEEL**

Students develop knowledge and skills in gas metal arc welding (GMAW) equipment.

*Prerequisites:* WDA3900: Apprenticeship Safety, WDA3401: Tools & Equipment

### **COURSE WDA3420: FCAW & MCAW ON MILD STEEL**

Students develop knowledge and skills in flux core arc welding (FCAW) and metal core arc welding (MCAW) equipment.

*Prerequisites:* WDA3900: Apprenticeship Safety, WDA3401: Tools & Equipment

**COURSE WDA3423: MILD STEEL WELDS**

Students develop knowledge and skills in GMAW, FCAW and MCAW equipment in various positions and configurations.

*Prerequisites:* WDA3900: Apprenticeship Safety, WDA3401: Tools & Equipment

**COURSE WDA3427: MILD STEEL PIPE WELDS**

Students develop knowledge and skills in GMAW, FCAW and MCAW equipment in various positions and configurations on mild steel pipe.

*Prerequisites:* WDA3900: Apprenticeship Safety, WDA3401: Tools & Equipment

**COURSE WDA3429: ALUMINUM & SAW**

Students develop knowledge and skills in aluminum welding and in submerged arc welding (SAW).

*Prerequisites:* WDA3900: Apprenticeship Safety, WDA3401: Tools & Equipment

**COURSE WDA3432: WELDING MATH 1**

Students solve math problems involving fractions, decimals, percentage and ratios related to the welding trade.

*Prerequisite:* WDA3900: Apprenticeship Safety

**COURSE WDA3437: WELDING MATH 2**

Students solve math problems involving geometric formulas and metric and imperial measures related to the welding trade.

*Prerequisite:* WDA3900: Apprenticeship Safety; WDA3432: Welding Math 1

**COURSE WDA3445: WDA PRACTICUM A**

Students, on the work site, continue to develop and refine those competencies developed in related Career and Technology Studies (CTS) occupational areas, previous practicums and other experiences.

*Prerequisite:* None

**COURSE WDA3450: WDA PRACTICUM B**

Students, on the work site, continue to develop and refine those competencies developed in related Career and Technology Studies (CTS) occupational areas, previous practicums and other experiences.

*Prerequisite:* None

**COURSE WDA3455: WDA PRACTICUM C**

Students, on the work site, continue to develop and refine those competencies developed in related Career and Technology Studies (CTS) occupational areas, previous practicums and other experiences.

*Prerequisite:* None

**COURSE WDA3460: WDA PRACTICUM D**

Students, on the work site, continue to develop and refine those competencies developed in related Career and Technology Studies (CTS) occupational areas, previous practicums and other experiences.

*Prerequisite:* None

**COURSE WDA3900: APPRENTICESHIP SAFETY**

Students develop knowledge, skills and attitudes in the practice of workshop health and safety, communication and career planning.

*Prerequisite: None*