

## **Program Planning Guide**

### **Robotic Welding Certificate (C50420R)**

Program Length: 3 semesters

Career Pathway Options: Diploma in Welding Technology (Higher entrance standards required), Certificate in Welding Technology

Program Site/s: Lee Main Campus - Day & Evening Program

#### **Required Courses:**

		Hours				Notes:
		Class	Lab	Clinic	Credit	
BPR 111	Print Reading	1	2	0	2	Fall or Spring Semester
ISC 110	Workplace Safety	1	0	0	1	Fall or Spring Semester
WLD 110	Cutting Processes	1	3	0	2	Fall Semester
WLD 121	GMAW (MIG) FCAW/Plate	2	6	0	4	Spring Semester
WLD 265*	Automated Welding Cutting	2	6	0	4	Fall or Spring Semester

**Total Semester Hours Credit Required for Graduation: 13**

#### **Course Descriptions:**

##### **BPR 111 Print Reading 1-2-2**

This course introduces the basic principles of print reading. Topics include line types, orthographic projections, dimensioning methods, and notes. Upon completion, students should be able to interpret basic prints and visualize the features of a part or system.

##### **ISC 110 Workplace Safety 1-0-1**

This course introduces the basic concepts of workplace safety. Topics include fire, ladders, lifting, lock-out/tag-out, personal protective devices, and other workplace safety issues related to OSHA compliance. Upon completion, students should be able to demonstrate an understanding of the components of a safe workplace.

##### **WLD 110 Cutting Processes 1-3-2**

This course introduces oxy-fuel and plasma-arc cutting systems. Topics include safety, proper equipment setup, and operation of oxy-fuel and plasma-arc cutting equipment with emphasis on straight line, curve and bevel cutting. Upon completion, students should be able to oxy-fuel and plasma-arc cut metals of varying thickness.

##### **WLD 121 GMAW (MIG) FCAW/Place 2-6-4**

This course introduces metal arc welding and flux core arc welding processes. Topics include equipment setup and welding fillet and groove welds on plate with emphasis on application of GMAW and FCAW electrodes on carbon steel plate. Upon completion, students should be able to perform GMAW/FCAW fillet and groove welds with various electrodes and filler materials.

##### **WLD 265 Automated Welding/Cutting 2-6-4**

*\*Prerequisites: Take WLD 110 and WLD 121*

This course introduces automated welding equipment and processes. Topics include setup, programming, and operation of automated welding and cutting equipment. Upon completion, students should be able to set up, program, and operate automated welding and cutting equipment.