

## Program Planning Guide

### Welding Technology Certificate (C50420)

Program length: 2 semesters day; 3 semesters evening  
 Career Pathway Options: Diploma in Welding Technology  
 Program Sites: Lee Main Campus

DAY Suggested Course Schedule:	HOURS			Grade	Semester	Notes
	Class	Lab	Credit			
1st Semester						
BPR 111	Print Reading	1	2	2		
ISC 110	Workplace Safety	1	0	1		
WLD 110	Cutting Processes	1	3	2		
WLD 115	SMAW (Stick) Plate	2	9	5		
		5	14	10		
2nd Semester						
WLD 121	GMAW (MIG) FCAW/Plate	2	6	4		
WLD 131	GMAW (TIG) Plate	2	6	4		
		4	12	8		
Total Semester Hours Credit: 18						

EVENING Suggested Course Schedule:	HOURS			Grade	Semester	Notes
	Class	Lab	Credit			
1st Semester						
BPR 111	Print Reading	1	2	2		
ISC 110	Workplace Safety	1	0	1		
WLD 110	Cutting Processes	1	3	2		
WLD 115B	SMAW (Stick) Plate	0	3	1		
		3	8	6		
2nd Semester						
WLD 115A	SMAW (Stick) Plate	2	6	4		
WLD 121	GMAW (MIG) FCAW/Plate	2	6	4		
		4	12	8		
3rd Semester						
WLD 131	GMAW (TIG) Plate	2	6	4		
		2	6	4		
Total Semester Hours Credit: 18						

# **Welding Technology Certificate (C50420)**

## **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 115     SMAW (Stick) Plate                             2-9-5**

This course introduces the shielded metal arc (stick) welding process. Emphasis is placed on padding, fillet, and groove welds in various positions with SMAW electrodes. Upon completion, students should be able to perform SMAW fillet and groove welds on carbon plate with prescribed electrodes.

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

This course introduces metal arc welding and flux core arc welding processes. Topics include equipment setup and fillet and groove welds with emphasis on application of GMAW and FCAW electrodes on carbon steel plate. Upon completion, students should be able to perform fillet welds on carbon steel with prescribed electrodes in the flat, horizontal, and overhead positions.

### **WLD 131     GTAW (TIG) Plate                             2-6-4**

This course introduces the gas tungsten arc (TIG) welding process. Topics include correct selection of tungsten, polarity, gas, and proper filler rod with emphasis placed on safety, equipment setup, and welding techniques. Upon completion, students should be able to perform GTAW fillet and groove welds with various electrodes and filler materials.