

# WELDING

## Curriculum Guide for Academic Year 2018-2019

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Program of study leading to:  
**Certificate of Accomplishment**

**Certificate: Advanced Arc Welding (SMAW and FCAW) 4986**

<u>REQUIRED COURSES</u>		UNITS	In Progress	Completed Grade
WELD 213	Intro to Semi-Automatic Welding	4		
WELD 483	Gas Metal Arc/Flux Core Arc Welding	2		
WELD 415	SMAW Flat/Horz Open Root Groove Welds	2		
WELD 416	SMAW Vert & O/H Open Root Groove Welds	2		
<b>SUBTOTAL UNITS</b>		<b>10</b>		
<u>IN ADDITION, Complete 6 (SIX) Units from the following courses:</u>		UNITS	In Progress	Completed Grade
WELD 221	Arc Welding Structural Certification	3		
MTFAB 260	Blueprint Reading for Metal Fabrication	3		
MTFAB 270	Metallurgy	3		
<b>SUBTOTAL UNITS</b>		<b>6</b>		
<b>TOTAL UNITS</b>		<b>16</b>		

**Certificate: Gas Tungsten Arc Welding (GTAW) 4989**

<u>REQUIRED COURSES</u>		UNITS	In Progress	Completed Grade
WELD 214	Introduction to GAS Tungsten Arc Welding	4		
WELD 480	Welding (Inert Gas)	2		
WELD 482	Gas Tungsten ARC Welding Basic Joints	2		
MTFAB 260	Blueprint Reading for Metal Fabrication	3		
<b>TOTAL UNITS</b>		<b>11</b>		

**Certificate: Shielded Metal Arc Welding (SMAW) 4991**

<u>REQUIRED COURSES</u>		UNITS	In Progress	Completed Grade
WELD 212	Introduction to Shielded Metal Arc Welding	4		
WELD 221	Arc Welding Structural Certification	3		
MTFAB 260	Blueprint Reading for Metal Fabrication	3		
<b>SUBTOTAL UNITS</b>		<b>10</b>		
<u>IN ADDITION, Complete 4 (FOUR) Units from the following courses:</u>		UNITS	In Progress	Completed Grade
WELD 410	Welding (ARC)	2		
WELD 413	SMAW Flat/Horz Groove Welds with Backing	2		
WELD 414	SMAW Vert and OV/HD Grv WELDS w/Backing	2		
<b>SUBTOTAL UNITS</b>		<b>4</b>		
<b>TOTAL UNITS</b>		<b>14</b>		

**Certificate of Accomplishment requirements continue on the following page.**

For graduation with a **Certificate of Accomplishment**:

1. Complete the required units with a minimum grade point average of 2.0 ("C" average).
2. Fifty percent (50%) or more of the required must be completed in residence at LBCC.
3. Complete and submit the certificate application form to the Admissions and Records office during your final semester of course work. These forms are available in the Admissions and Records office, or online at <http://admissions.lbcc.edu/>.

## **Program Mission and Outcomes**

### **Mission Statement for Certificate of Accomplishment, Shielded Metal Arc Welding (SMAW):**

The Welding Technology Certificate of Accomplishment in Shielded Metal Arc Welding (SMAW) is for those interested in welding structural steel. Course work includes a comprehensive study with an emphasis on application of fundamental welding techniques and safe industry practices.

#### **Outcomes:**

- Demonstrate advanced level skills to produce quality welds in the flat, horizontal, vertical, and overhead positions using the SMAW (Shielded Metal Arc Welding) process.

### **Mission Statement for Certificate of Accomplishment, Advanced Arc Welding (SMAW and FCAW):**

The Welding Technology Certificate of Accomplishment in Advanced Arc Welding will emphasize advance welding skills in the SMAW (Shielded Metal Arc Welding) and FCAW (Flux Core Arc Welding) processes. Course work includes a comprehensive study with an emphasis on application of fundamental welding techniques and safe industry practices.

#### **Outcomes:**

- Demonstrate advanced level skills to produce quality welds in the flat, horizontal, vertical, and overhead positions using various arc-welding processes.

### **Mission Statement for Certificate of Accomplishment, Gas Tungsten:**

The Welding Technology Certificate of Accomplishment in Gas Tungsten Arc Welding (GTAW) is for those interested in entry-level welding skills to required GTAW Aluminum, low carbon, and stainless steels. Course work includes a comprehensive study with an emphasis on application of fundamental welding techniques and safe industry practices.

#### **Outcomes:**

- Demonstrate advanced level skills to produce quality welds in the flat, horizontal, and vertical positions using the GTAW (Gas Tungsten Welding) process.