

# **WELDING**

## **Curriculum Guide for Academic Year 2016-2017**

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|--|--|---------|-----------------|--------------------|
|  | Program of study leading to:                                 |         |                 |                    |
| Certificate of Accomplishment  |  |         |                 |                    |
|  |  |         |                 |                    |
| Certificate: Shielded Meta   | al Arc Welding (SMAW) 4991                                   |         | In              | Completed          |
| REQUIRED COURSES   |  | UNITS   | Progress        | 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       |                 |                    |
|  | SUBTOTAL UNITS   | 10      |                 |                    |
|  |  |         | In              | Completed          |
| · ·  | FOUR) Units from the following courses:                      | UNITS   | Progress        | Grade              |
| WELD 410   | Welding (ARC)  | 2       |                 |                    |
| WELD 413   | SMAW Flat/Horz Groove Welds with Backing                     | 2<br>2  |                 |                    |
| WELD 414   | SMAW Vert and OV/HD Grv WELDS w/Backing SUBTOTAL UNITS       | ∠<br>4  |                 |                    |
|  | TOTAL UNITS  | 4<br>14 |                 |                    |
|  | TOTAL UNITS  | 14      |                 |                    |
| Certificate: Advanced Arc Welding (SMAW and FCAW) 4986                     |  |         |                 |                    |
| oci inoute. Auvanocu Ai  | o Welding (Oliman and Town) 4000                             |         | In              | Completed          |
| REQUIRED COURSES   |  | UNITS   | <b>Progress</b> | 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       |                 |                    |
|  | SUBTOTAL UNITS   | 10      |                 |                    |
|  |  |         | In              | Completed          |
| IN ADDITION, Complete 6 (SIX) Units from the following courses:            |  | UNITS   | Progress        | Completed<br>Grade |
| WELD 221   | Arc Welding Structural Certification                         | 3       |                 |                    |
| MTFAB 260  | Blueprint Reading for Metal Fabrication                      | 3       |                 |                    |
| MTFAB 270  | Metallurgy   | 3       |                 |                    |
|  | SUBTOTAL UNITS   | 6       |                 |                    |
|  | TOTAL UNITS  | 16      |                 |                    |
|  |  |         | •               |                    |
|  | _  |         |                 |                    |
| Certificate: Gas Tungste   | n Arc Welding (GTAW) 4989                                    |         | •               | 0                  |
| REQUIRED COURSES   |  | UNITS   | In<br>Progress  | Completed<br>Grade |
| WELD 214   | Introduction to GAS Tungston Are Wolding                     |         | Tiogress        | Orace              |
| WELD 214<br>WELD 480   | Introduction to GAS Tungsten Arc Welding Welding (Inert Gas) | 4<br>2  |                 |                    |
| WELD 482   | Gas Tungsten ARC Welding Basic Joints                        | 2       |                 |                    |
| MTFAB 260  | Blueprint Reading for Metal Fabrication                      | 3       |                 |                    |
|  | TOTAL UNITS  | 11      |                 |                    |
| Certificate of Accomplishment requirements continue on the following page. |  |         |                 |                    |

WELDING 2016-2017 AS = 2986; C-ACH = 3986

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Published: 02/16/2017

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

- 1. Complete the required units with a minimum grade point average of 2.0 ("C" average).
- Fifty percent (50%) or more of the required must be completed in residence at LBCC.
- 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 entrylevel 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.

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Published: 02/16/2017

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