WELDING TECHNOLOGY  
(Preparatory Program)  
Associate in Science and/or Career Certificate

CAREER OPPORTUNITIES

Students prepare for entry level welding positions in aerospace, piping industry, and construction. The Long Beach City College Welding program is articulated with the Long Beach Unified School District ROP Welding program. Students who complete LBUSD ROP Welding may receive advanced placement.

Upon the completion of the welding program, the student will be able to:

1. Set up, adjust, and light an oxyacetylene welding unit and weld in flat vertical, horizontal, and overhead welding positions.
2. Effectively operate all types of AC, DC welding equipment.
3. Identify commonly welded metals by sight, spark test, and identification standards used in the industry, and identify the properties of those metals.
4. Use the appropriate welding process in a safe, efficient, and economic manner.
5. Set up, turn on, adjust, and use metallic arc, tungsten inert gas, metallic inert gas, and inner shield welding equipment.
6. Inspect weld specimens by destructive and non-destructive testing means and describe the results by comparison with good examples.
7. Pass certification tests on one or more welding processes including A.W.S. and Los Angeles Structural Steel tests.

DEPARTMENTAL ADMISSION REQUIREMENTS

None. For more departmental information call (562) 938-3074 or 938-3054.

REQUIRED COURSES

<table>
<thead>
<tr>
<th>Option 1</th>
<th>Select ONE of the following Options:</th>
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<tr>
<td>Complete 40 units from the following courses:</td>
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<tr>
<td>WELD 211</td>
<td>Fundamentals of Welding &amp; Tools of Trade</td>
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<td>† WELD 212</td>
<td>Arc Welding &amp; Fabrication</td>
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<td>† WELD 213</td>
<td>Advanced Arc Welding</td>
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<td>† WELD 214</td>
<td>Inert Gas Welding</td>
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<td>† WELD 220</td>
<td>Structural Arc Welding</td>
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<td>† WELD 221</td>
<td>Arc Welding Structural Certification</td>
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<tr>
<td>† WELD 230</td>
<td>Fundamentals of Inert Gas Welding (Heliarc, MIG)</td>
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<tr>
<td>† WELD 231</td>
<td>Prep. for Inert Gas Welding Certification</td>
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<tr>
<td>† SHMET 220AD</td>
<td>Surface Development and Fabrication</td>
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<tr>
<td>MACHT 50A</td>
<td>Machine Tool Operation and Practices</td>
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| Option 2 | |
| SHMET 220 (5 units) AND 35 units of Welding -18 units must be from 200 series listed above, balance of courses from any 200/400 welding series courses (no credit allowed for repetition of course). | |

TOTAL UNITS: 40

SEE REVERSE SIDE FOR ADDITIONAL REQUIREMENTS

LEGEND

† This course has a prerequisite; prerequisite courses must be completed with at least a "C" or "CR" grade (see catalog or schedule of classes)

GRADUATION REQUIREMENTS

For CAREER CERTIFICATE:
The Career Certificate is a one to two year program in occupational/technical areas at Long Beach City College which provides training in job skills and employment opportunities. Complete the required units with a minimum cumulative grade point average of 2.0 ("C" average). Fifty percent (50%) or more of the unit requirements for this field of concentration must be completed in residence (credit earned by exam, where applicable, may be included).

For ASSOCIATE IN SCIENCE DEGREE:
The Associate Degree is a two-year college degree awarded by Long Beach City College which includes general education courses and a major. In addition to the requirements for this Career Certificate, complete the A.S. degree requirements specified in the catalog. The requirements for general education/proficiency and the field of concentration need to be from the same catalog year. This catalog year may be any year between the year of initial enrollment to the present, provided continuous enrollment is maintained throughout (see the catalog for definition of "continuous enrollment"). Fifty percent (50%) or more of the unit requirements for this field of concentration must be completed in residence (credit earned by exam, where applicable, may be included).

Required for the Communication and Analytical Thinking requirement:
†ELECT 225, Algebra & Trigonometry for Technicians OR †Mathematics 110, First Course in Algebra OR a more advanced level of mathematics may be substituted.

Recommended for the Natural Sciences requirement:
Environmental Science 1, Energy for the Future OR †Chemistry 2.

NOTE: To receive a certificate or degree you must submit completed application forms in the Admissions and Records Office during your final semester of course work.

In general, "double-counting" is not allowed. That is, one course may not be used to fulfill both a field of concentration requirement and to fulfill a general education requirement.

Students interested in transferring to a university to continue their study in this field of concentration or other majors are strongly advised to consult an LBCC academic counselor and refer to the ASSIST website (www.assist.org) for major preparation information. The counseling staff and the Student Success & Transfer Services Center can clarify the different major and admissions requirements at a university.

To set up an appointment to see a counselor or schedule the SOAR Test, call LAC (562)938-4561 or PCC (562)938-3920.


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