### WELDING JOINT FIT-UP & ADJUSTMENT

**Course Syllabus**

<table>
<thead>
<tr>
<th>Course Number:</th>
<th>WELD-0086</th>
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<tbody>
<tr>
<td>OCAS Code:</td>
<td>None</td>
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<tr>
<td>Course Length:</td>
<td>15 Hours</td>
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<tr>
<td>Career Cluster:</td>
<td>Manufacturing</td>
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<tr>
<td>Career Pathway:</td>
<td>Welding and Metal Fabrication</td>
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<tr>
<td>Career Major(s):</td>
<td>Combination Welder, Welding Fabricator</td>
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**Pre-requisite(s):**

This course is an introduction to identifying and explaining job code specifications, use of fit-up gauges and measuring devices to check fit-up and alignment, the use of plate and pipe fit-up and alignment tools to properly prepare joints. The course introduces steps to check for joint misalignment of poor fit.

**Textbooks/Materials:**

- Math for Welders, Marion and Nino, GoodHeart- Willcox (2001)

**Course Objectives:**

- **A. Demonstrate an Understanding of Welding Joint Fit-Up and Alignment**
  1. Identify and explain job code specifications. \(^1\)
  2. Use fit-up gauges and measuring devices to check joint fit-up. \(^1\)
  3. Identify and explain distortion and how it is controlled. \(^1\)
  4. Fit up joint using plate and pipe fit-up tools. \(^1\)
  5. Check for joint misalignment and poor fit-up before and after welding. \(^1\)

- **B. Examine cut surfaces and edges of prepared base metal parts. \(^2\)**

\(^1\) Welding Skills, National Center for Construction Education and Research (NCCER)
\(^2\) American Welding Society, Module 9 and ODCTE Duty K.01

**Teaching Methods:**

The class will primarily be taught by the lecture and demonstration method and supported by various media materials to address various learning styles. There will be question and answer sessions over material covered in lecture and media presentations. Supervised lab time is provided for students to complete required projects.
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Grading Procedures:
1. Students are graded on theory and shop practice and performance.
2. Each course must be passed with seventy (70%) percent or better.
3. Grading scale: A=90-100%, B=80-89%, C=70-79%, D=60-69%, F=50-59%.

Description of Classroom, Laboratories, and Equipment:
- Tulsa Technology Center campuses are owned and operated by Tulsa Technology Center School District No. 18. All programs provide students the opportunity to work with professionally certified instructors in modern, well-equipped facilities.

Available Certifications/College Credit:
- The student may be eligible to take state, national or industry exam after completion of the program. College credit may be issued from Oklahoma State University-Okmulgee or Tulsa Community College. See program counselor for additional information.

College Credit Eligibility:
- The student must maintain a grade point average of 2.0 or better.