

# Course Outcome Guide (COG)

Approved April 13, 2015

<b>Course:</b> DTEC 266	<b>Title:</b> Basic Welding Procedures	<b>Credits:</b> 4	<b>Instructor:</b>		
<b>Course Description:</b>	This course covers safety procedures and principles of oxy fuel cutting, shielded metal arc welding "SMAW" procedures and gas metal arc welding "GMAW" procedures and plasma metal cutting				
Concepts and Issues	Process Skills	Assessment Tasks	Intended Outcomes		
			Course	General Education or Program	Institutional
<ul style="list-style-type: none"> <li>For the student to use industry standard safety procedures of welding practices</li> <li>For the student to develop a basic understanding of metal cutting and welding procedures</li> <li>Develop skills for proper procedures in SMAW</li> <li>Develop skills for proper procedures in GMAW</li> <li>Develop knowledge of basic metal fabrication</li> </ul>	<ul style="list-style-type: none"> <li>Identify and describe the safety hazards associated with metal cutting and welding</li> <li>Identify and describe the function of components found on a oxy fuel cutting torch</li> <li>Demonstrate proper procedure in SMAW and GMAW</li> <li>Demonstrate knowledge of basic fabrication using metal cutting and welding</li> </ul>	<ul style="list-style-type: none"> <li>Weekly testing</li> <li>Shop performance</li> <li>Demonstration of course specific skills</li> </ul>	<ol style="list-style-type: none"> <li>Demonstrate proper safety procedures associated with metal cutting and welding</li> <li>Demonstrate metal cutting procedures using an oxy fuel torch</li> <li>Demonstrate the ability to perform SMAW and GMAW welding</li> <li>Perform welding skills in the flat, horizontal and vertical positions</li> <li>Demonstrate knowledge of metal fabrication</li> </ol>	<ol style="list-style-type: none"> <li>Make troubleshooting decisions and complete repairs using the proper tools and equipment based on concepts and processes learned in the Transportation program.</li> <li>Be prepared to take NATEF Certification tests.</li> <li>Apply the knowledge acquired for future employment.</li> <li>Apply the knowledge of safety procedures and handling of hazardous material processes to their training and future employment.</li> </ol>	<ol style="list-style-type: none"> <li>Students will demonstrate effective communication skills.</li> <li>Students will use reasoning skills to analyze and solve problems.</li> </ol>

techniques

- Perform testing procedures of GMAW and SMAW welds

using a combination of cutting and welding procedures