DEPARTMENT: Manufacturing Technology
CURRICULUM: Welding Fabrication Technology
COURSE TITLE: Gas Metal Arc Welding
COURSE NUMBER: WFT 124
TYPE OF COURSE: Vocational Preparatory
COURSE LENGTH: 1 Quarter
CREDIT HOURS: 6
LECTURE HOURS: 22
LAB HOURS: 88
CLASS SIZE: 25
PREREQUISITES: WFT: 100, 120, 121

COURSE DESCRIPTION:
A set of lab competencies that will introduce practical exercises which convey knowledge of equipment as well as multiple positions and application of GMAW uses. This will combine previously learned weld theory, operation of OXY – Acetylene and Shielded Metal Arc Welding (SMAW) processes. Mild steel, low alloy steel, aluminum, and stainless steel are commonly welded with these processes in a variety of industrial applications.

STUDENT LEARNING OUTCOMES ADDRESSED:

1. Communication - Communicate and work in groups to complete minimum skills activities
WFT 124 Gas Metal Arc Welding

STUDENT LEARNING OUTCOMES ADDRESSED: (cont.)

2. Complete reading and written work as assigned. Tack, weld, and finish all required assigned activities. Demonstrate consistent safe work habits including citizenship. Demonstrate consistent quality workmanship per industry standards.
3. Critical thinking and Problem Solving - Formulate and communicate a plan of action for assigned fabrication and maintenance projects.

GENERAL COURSE OBJECTIVES:

At the end of the course the student will be able to:

1. Identify components of the Gas Metal Arc Welding equipment.
2. Explain GMAW principles of operation.
3. Safely transport, assemble, adjust, and maintain a GMAW equipment.
4. Perform assigned laboratory exercises using GMAW.

TOPICAL OUTLINE

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<thead>
<tr>
<th>TOPICAL OUTLINE</th>
<th>APPROX. HOURS</th>
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<tbody>
<tr>
<td>I. Components of a GMAW system</td>
<td>2</td>
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<tr>
<td>II. Operating principles of GMAW</td>
<td>2</td>
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<tr>
<td>III. Setup &amp; use of GMAW systems</td>
<td>2</td>
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<tr>
<td>IV. Techniques for using GMAW</td>
<td>104</td>
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<td>Total</td>
<td>110</td>
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Detailed Topical Outline is available separately

REVISED BY: David Weber
DATE: August, 2011

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