Course Title: Gas Metal Arc Welding II
Submitted By: T. Baldwin
Semester Course Prefix and Number: Weld1262
Approval Date: Oct 2013
Old Quarter Course Prefix and Number: 
Revision Date: Oct 2013
Number of Credits: 2
Number of Lecture Credits: 0
Number of Lab Credits: 2
Number of Lab Hours: 4
Number of Studio/Demonstration/Internship Credits:
Class Size: 24
Negotiated by AASC on: (date)

Course Purpose Code:
0 – Developmental Courses
1 – Non-transferable
X 2 – Technical course related to career programs
3 – College course which has the primary goal of applying certain concepts (e.g. vocal ensemble)
4 – Other college course not considered a part of MNTC (e.g. computer science, health, physical education)

5 – Course which is intended to fulfill the Minnesota Transfer Curriculum (MNTC) requirements or intended for transfer.
9 – Continuing Education/Customized Training specialized credit course (not occurring in 0-5)

Catalog Description:
This course covers the AWS National Skills Standards related to the Gas Metal Arc Welding Process and the related safety practices. The student will become familiar with GMAW fundamentals, equipment, metal transfer processes and shielding gases related to GMAW. Light ferrous and non-ferrous materials will be welded in the 1F, 2F, 3F, 4F, 1G, 2G, 3G, & 4G positions utilizing various techniques.

Prerequisites and/or recommended entry skills/knowledge:
Course Prerequisite(s): Concurrent enrollment in or previous successful (GPA 2.0) of Weld 1261
Reading Prerequisite:
Composition Prerequisite:
Mathematics Prerequisite:

Career Programs and Transfer Majors Accessing this Course:
Welding, Welding Engineering, any trades/technical area utilizing welding

Minnesota Transfer Curriculum Goal(s) partially met by this course if applicable:
(Notes: No more than two goals may be met by any one course. Curriculum Committee review and the Chief Academic Officer’s approval are required.)
0. None
1. Communications
2. Critical Thinking
3. Natural Sciences
4. Mathematical/Logical Reasoning
5. History and the Social and Behavioral Sciences
6. The Humanities and Fine Arts
7. Human Diversity
8. Global Perspectives
9. Ethical and Civic Responsibility
10. People and the Environment

Learning Outcomes: (including any relevant competencies listed in the Minnesota Transfer Curriculum)
Upon completion of this course, the student will be able to:
- Demonstrate the proper set up of the GMAW equipment and accessories
- Select the proper filler metals and gases
- Troubleshoot equipment problems
- Successfully complete welds with GMAW – Short Circuit on gauge sheet steel in the following positions: 3G, 4G, 3F, 4F
- Successfully complete welds with GMAW – Short Circuit on gauge sheet stainless steel in the following positions: 1G, 1F, 2F
- Successfully complete welds with GMAW – Short Circuit on gauge sheet aluminum in the following positions: 1G, 1F, 2F
- Exhibit professionalism

**Student Assessment Methods:**
Observation of practical skills; Visual Testing to applicable codes; Destructive testing of completed welds

**Use of Instructional Technology:** (includes software, interactive video and other instructional technologies):
May use any of the following: videos, internet, and/or simulators

**Additional Special Information:** (special fees, directives on hazardous materials, etc.)

**Transfer Information:** (Please list colleges/majors that accept this course in transfer.)

**Affiliated Mesabi Range College Courses and Programs:**

**Approvals:**

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**Distribution:** Original – Instructional Services

**Copies:** Transfer Specialist, Originating Faculty Member, Records

**Revised:** December 2012