

# MESABI RANGE COMMUNITY & TECHNICAL COLLEGE

## Course Outline

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|                                       |                               |                |            |
|---------------------------------------|-------------------------------|----------------|------------|
| Course Title:                         | Cutting and Gouging Processes | Submitted By:  | T. Baldwin |
| Semester Course Prefix and Number:    | Weld 1233                     | Approval Date: | Oct 2013   |
| Old Quarter Course Prefix and Number: |                               | Revision Date: | Oct 2013   |

|                                  |      |  |   |                      |   |
|----------------------------------|------|--|---|----------------------|---|
| Number of Credits:               | 4    | Number of Lecture Credits:                         | 0 |                      |   |
| Semester(s) Offered:             | Fall | Number of Lab Credits:                             | 4 | Number of Lab Hours: | 8 |
| Class Size:                      | 24   | Number of Studio/Demonstration/Internship Credits: |   |                      |   |
| Negotiated by AASC on:<br>(date) |      |  |   |                      |   |

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### Course Purpose Code:

- 0 – Developmental Courses
- 1 – Non-transferable
- 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 OFC, PAC-A and CAC-A Cutting and Gouging processes and the related safety practices. The student will practice the processes on carbon steel, stainless steel, and aluminum. Students will be evaluated on their performances in a work-like environment.

### Prerequisites and/or recommended entry skills/knowledge:

Course Prerequisite(s): Concurrent enrollment in or previous successful (GPA 2.0) of Weld 1231  
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. <input checked="" type="checkbox"/> None                                | 6. <input type="checkbox"/> The Humanities and Fine Arts     |
| 1. <input type="checkbox"/> Communications                                 | 7. <input type="checkbox"/> Human Diversity                  |
| 2. <input type="checkbox"/> Critical Thinking                              | 8. <input type="checkbox"/> Global Perspectives              |
| 3. <input type="checkbox"/> Natural Sciences                               | 9. <input type="checkbox"/> Ethical and Civic Responsibility |
| 4. <input type="checkbox"/> Mathematical/Logical Reasoning                 | 10. <input type="checkbox"/> People and the Environment      |
| 5. <input type="checkbox"/> History and the Social and Behavioral Sciences |  |

### Learning Outcomes: (including any relevant competencies listed in the Minnesota Transfer Curriculum)

Upon completion of this course, the student will be able to:

- Prepare fabrications for repair, metals for welding, cut shapes, and prepare structural metals utilizing the OFC

- process
- Prepare fabrications for repair, metals for welding, cut shapes, and prepare structural metals utilizing the PAC process
- Prepare fabrications for repair and metals for welding utilizing the CAC-A process
- Exhibit professionalism

**Student Assessment Methods:**

Observation of practical skills; Visual Testing

**Use of Instructional Technology:** (includes software, interactive video and other instructional technologies):

May use videos and/or Interactive internet

**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:**

| Body                                 | Representative Signatures | Date |
|--------------------------------------|---------------------------|------|
| Faculty Association                  |                           |      |
| Academic Affairs Standards Committee |                           |      |
| Chief Academic Officer               |                           |      |

**Distribution:** Original – Instructional Services  
**Copies:** Transfer Specialist, Originating Faculty Member, Records  
**Revised:** December 2012