

MESABI RANGE COMMUNITY & TECHNICAL COLLEGE

Course Outline

Course Title: Gas Tungsten Arc Welding – Pipe & Tube Submitted By: D. Mroz
Semester Course Prefix and Number: Weld 2245 Approval Date:
Old Quarter Course Prefix and Number: Weld 2245 Revision Date: 3/18/10

Number of Credits: 3 Number of Lecture Credits:
Semester(s) Offered: Fall Number of Lab Credits: 3 Number of Lab Hours: 6
Class Size: 24 Number of Studio/Demonstration/Internship Credits:
Negotiated by AASC on:
(date)

Course Purpose Code:

- 0 – Developmental Courses
x 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:

The purpose of this course is to afford the student the opportunity to be come proficient welding carbon steel pipe roots and tube using the Gas Tungsten Metal Arc (TIG) process to the standards prescribed in the appropriate AWS, API, and ASME codes.

Prerequisites and/or recommended entry skills/knowledge:

Course Prerequisite(s): A 2.0 or better in Weld 1271, 1271b, or consent of instructor.
Reading Prerequisite:
Composition Prerequisite:
Mathematics Prerequisite:

Career Programs and Transfer Majors Accessing this Course:

Any career program utilizing welding: IT Degree, IT Management, Welding Management.

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. x 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 ability to operate shop equipment safely and effectively.
- Use a variety of cutting process to fabricate metal for welding.
- Develop jigs and fixtures for welding.
- Use a variety of welding processes to complete projects
- Reference Codes and Standards for specification compliance. Develop the skills necessary to pass AWS, API, and ASME Welding Certification tests.

Student Assessment Methods:

Visual and destructive testing of welded materials. Evaluated lab assignments.

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

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

The student will supply all materials from the “Required Tools and Safety Equipment” list.

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

Course Outline Revision History:

Weld 2245 Fabrication & Repair I was revised in May 2005. The course prefix number will be used for this new course which is to be Gas Tungsten Arc Welding – Pipe & Tube.

Approvals:

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

Distribution: Original – Instructional Services
Copies: Transfer Specialist, Originating Faculty Member, Records
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