

# MESABI RANGE COLLEGE

## Course Outline

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Course Title: Hydraulic Basics  
Semester Course Prefix and Number: IMT1247  
Old Quarter Course Prefix and Number:

Submitted By: Waldorf,  
Approval Date: Bunderman  
Revision Date: 11-10-2014

Number of Credits: 2  
Semester(s) Offered:  
Class Size: 35  
Negotiated by AASC on:  
(date)

Number of Lecture Credits: 1  
Number of Lab Credits: 1  
Number of Studio/Demonstration/Internship Credits:

Number of Lab Hours: 2

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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 basic use of hydraulic components used in industry. The student will learn how these components are used in a variety of applications. The student will also learn the math, which is needed in this type of application.

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

Course Prerequisite:  
Reading Prerequisite:  
Composition Prerequisite:  
Mathematics Prerequisite:

### Career Programs and Transfer Majors Accessing this Course:

### 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. AASC review and the Chief Academic Officer's approval are required.)

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|--|--|
| 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:

- Explain and perform necessary math functions
- Familiarization with the hydraulic trainers
- Cylinder control
- Describe pressure reducing values
- Demonstrate hydraulic safety procedures

**Student Assessment Methods:**

Hands on performance, tests

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

Hand-outs

**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