

# MESABI RANGE COMMUNITY & TECHNICAL COLLEGE

## Course Outline

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<b>Course Title:</b>	<b>Drive Components &amp; Troubleshooting</b>	<b>Submitted By:</b>	<b>Waldorf, Parker, Hill</b>
<b>Semester Course Prefix and Number:</b>	<b>IMT 1256</b>	<b>Approval Date:</b>	
<b>Old Quarter Course Prefix and Number:</b>		<b>Revision Date:</b>	<b>11-30-11</b>
<b>Number of Credits:</b>	<b>3</b>	<b>Number of Lecture Credits:</b>	<b>1</b>
<b>Semester(s) Offered:</b>		<b>Number of Lab Credits:</b>	<b>2</b>
<b>Class Size: 35</b>		<b>Number of Lab Hours:</b>	
<b>Number of Studio/Demonstration/Internship Credits:</b>			
<b>Negotiated by AASC on:</b>			
<b>(date)</b>			

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### Course Purpose Code:

- 0 – Developmental Courses
- 1 – Non-transferable, General Education
- 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 general education (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 main purpose is to introduce the student to drive components and equipment operation, and learn the how and why of checking equipment before, during and after operating. The student will also learn about the set-up and maintenance of many of the drive components which are used in industry. The student will learn the math and blueprint reading and sketching to perform basic troubleshooting.

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

Course Prerequisite(s):

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. Curriculum Committee 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
- Align steel grid couplings
- Define V-belt terminology
- Define gear terminology and compound gearing
- Demonstrate V-belt alignment

**Student Assessment Methods:**

Tests, quizzes worksheets  
Practice hands on operation and repair work

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

Videos

**Outline or Statement of Major Course Content:**

This course will introduce the student to drive system components and the operation of equipment. The student will learn the how and why of checking equipment, setting up equipment, and the maintenance of drive systems.

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

Grease and oils, sprays

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

**Approvals:**

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

**Distribution:** Original – Administrative Office  
**Copies:** Curriculum Committee Chair, AASC Chair, Transfer Specialist, Originating Faculty Member, Scheduler, Records, Student Services, Learning Center, Library  
**Revised:** October 2006