MESABI RANGE COMMUNITY & TECHNICAL COLLEGE

Course Outline

Course Title:	**Mobile Equipment Operation and Safety**	**Submitted By:**	**Keith Mattson**
Semester Course Prefix and Number:	**IT 1265**	**Approval Date:**	
Old Quarter Course Prefix and Number:	**ATMX 1265**	**Revision Date:**	**April 2009**

Number of Credits: **3** **Number of Lecture Credits:** **2**
Semester(s) Offered: **Number of Lab Credits: 1 Number of Lab Hours: 2**
Class Size: **35** **Number of Studio/Demonstration/Internship Credits:**
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 general education (MNTC) e.g. computer science, health, physical education
_____ **5 –** Course which is intended to fulfill the Minnesota Transfer Curriculum (MNTC) requirements.
_____ **9 –** Continuing Education/Customized Training specialized credit course (not occurring in 0-5)

Catalog Description:
This course will help the student understand how mobile equipment is to be safely operated, inspected, and maintained. It will explain servicing programs, preventative maintenance and equipment pre-trip inspections. Fundamental operating characteristics will be presented. Students will gain an understanding of safe operation, safety checks, and safety principles related to mobile equipment. Students will have an opportunity to gain an introductory level of operating experience in a small piece of mobile equipment.

Prerequisites and/or recommended entry skills/knowledge:
Course co-requisite(s): None
Reading Prerequisite: None
Composition Prerequisite: None
Mathematics Prerequisite: None

Career Programs and Transfer Majors Accessing this Course:
Industrial Technology

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:
A student will:

- Demonstrate an understanding of safety principles and safe operation of mobile equipment
- Inspect key safety equipment and features of mobile equipment
- Identify key systems and subsystems requiring inspection and repair on mobile equipment
- Analyze how factors such as loading, grades, slopes, and soils affect vehicle stability
- Exhibit hands-on operational experience of one or more pieces of mobile equipment.
- Identify the types of fuel, lubricants, fluids and chemicals used in mobile mining systems.
- Recite key characteristics of the major systems comprising mobile equipment, such as engines, transmissions, wheels/tracks, suspension, safety features, implements, etc.
- Identify equipment computer systems and recite their basic functions and features.

Student assessment methods:
Students will be assessed by class preparation, quizzes and exams, hands-on applications and practical application using rubrics.

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

Onsite vehicle demonstrations, Videos, Software, and simulations

Outline of the major course content:

- Course content will support the learning outcomes and instructional goals listed above
- Concepts learned and analyzed in lecture will be demonstrated and expanded in lab.

Additional special information (special fees, directives on hazardous materials, etc.)

- Students who elect to pursue a training certificate (if available) for a piece of mobile equipment (such as a Bobcat skidsteer) will be required to pay a nominal additional fee to pay for the instructional material (estimated at $10-$25). This is voluntary and is not required for the course.
- Students will learn proper handling and storage of fuels and lubricants.

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