

MESABI RANGE COMMUNITY & TECHNICAL COLLEGE

Course Outline

Course Title: Mobile Equipment Safety and Rigging
Semester Course Prefix and Number: MEST 1246
Old Quarter Course Prefix and Number:

Submitted By: Andy White
Approval Date: December 2008
Revision Date:

Number of Credits: 2
Semester(s) Offered: Fall
Class Size: 24
Negotiated by AASC on:
(date)

Number of Lecture Credits: 1
Number of Lab Credits: 1 **Number of Lab Hours:** 2
Number of Studio/Demonstration/Internship Credits:

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 purpose of this course is to introduce the student to the rigging, lifting, and industrial safety practices required of a Mobile Equipment Service Technician. The main course content will incorporate industrial safety with proper rigging and lifting techniques. Students will learn to make safety a part of their daily lives.

Prerequisites and/or recommended entry skills/knowledge:

Course Prerequisite(s): None

Reading Prerequisite:

Composition Prerequisite:

Mathematics Prerequisite:

Career Programs and Transfer Majors Accessing this Course:

Mobile Equipment Service Technician

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:

- 1.) Identify safety and safety responsibility.
- 2.) Develop good safety communications.
- 3.) Explain the need for good housekeeping.
- 4.) Explain lock-out / tag-out procedures.
- 5.) Identify hazards and unsafe conditions.
- 6.) Identify accident types.
- 7.) Demonstrate proper personal lifting procedures.
- 8.) Explain the fire pyramid.
- 9.) Identify fire extinguisher types.
- 10.) Explain proper fire extinguisher selection and usage.
- 11.) Define hazardous material.
- 12.) Define flammable material.
- 13.) Define reportable quantity.
- 14.) Explain Employee Right to Know.
- 15.) Interpret an MSDS – Material Safety Data Sheets.
- 16.) Demonstrate proper use of PPE – Personal Protective Equipment.
- 17.) Inspect PPE for defects.
- 18.) Identify wire rope terminations and hardware.
- 19.) Identify sling material and configuration.
- 20.) Perform inspections of slings and hardware.
- 21.) Demonstrate proper selection of rigging hardware.
- 22.) Demonstrate proper use of rigging hardware.
- 23.) Explain importance of hardware selection and sizing.
- 24.) Determine load weights.
- 25.) Explain the importance of the center of gravity in lifting operations.
- 26.) Demonstrate proper crane hand signals.
- 27.) Define suspended load.
- 28.) Explain the hazards of working around a suspended load.
- 29.) Demonstrate proper lifting techniques.
- 30.) Demonstrate proper usage of tag lines.
- 31.) Demonstrate proper cribbing construction and practices.
- 32.) Develop a lifting plan.
- 33.) Define OSHA.
- 34.) Define MSHA.
- 35.) Perform tasks cooperatively.

Student Assessment Methods:

Homework, Lab Assignments, Hands-on Tests, Written Tests

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

PowerPoint Presentations & Video Presentations.

Outline or Statement of Major Course Content:

See Course Description above.

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

None

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