Industrial Maintenance Mechanic 1
Course Outcome Summary

Course Information

Organization	Madison Area Technical College
Developers	Dennis D. James
Development Date	12/1/1991
Revised Date	7/1/1999
Course Number	32-462-311
Instructional Level	Two-Year Technical Diploma
Potential Hours of Instruction	90
Total Credits	3

Description
Emphasizes basic tools used for maintenance. Presents information on lock out/tag out; confined space and safe rigging practices; manufacturing machine types and operations; torque; metal properties and hardness; gaskets; pumps; gears; motors; pulleys; and alignment.

Types of Instruction

Instruction Type	Contact Hours	Credits
Classroom Presentation	18	3
On-Campus Lab	72	

Textbooks

Ober, E., Jones, F. D., Horton H. L., Ryffel, H. H.. *Machinery's Handbook*. Industrial Press, Inc.. 1992. **Edition:** 24th. **Source:** New York.

Learner Supplies

Safety glasses. **Manufacturer:** ---.

Hard-soled shoes. **Manufacturer:** ---.

Competencies

A. Demonstrate shop safety

Competence will be demonstrated:

1. by demonstrating safe work habits
2. when, given instruction, students pass Red Cross test
3. when students are required to created safety work rules

Criteria - Performance will be satisfactory when:

1. you demonstrate safe shop practices
2. you demonstrate CPR
3. you demonstrate basic First Aid Knowledge

B. Demonstrate shop practices

Competence will be demonstrated:

1. when, given a list of equipment, students identify the parts and vendor sources

Criteria - Performance will be satisfactory when:

1. you complete a parts identification series

C. Demonstrate minor mechanical repairs and adjustment

Competence will be demonstrated:

1. when, given equipment and tools, students complete assigned repairs

Criteria - Performance will be satisfactory when:

1. you complete minor repairs of designated equipment

D. Demonstrate rigging

Competence will be demonstrated:

1. when, given instruction, students demonstrate rigging

Criteria - Performance will be satisfactory when:

1. you demonstrate safe rigging

E. Demonstrate forklift operation

Competence will be demonstrated:

1. when, given instruction, students demonstrate operation

Criteria - Performance will be satisfactory when:

1. you demonstrate the safe operation of a forklift

F. Demonstrate surface preparation and painting

Competence will be demonstrated:

1. when, given instruction, students clean and otherwise prepare equipment for painting
2. when, given instruction, students paint designated equipment

Criteria - Performance will be satisfactory when:

1. you prepare a machine surface for painting
2. you demonstrate proper painting procedures

G. Demonstrate crane operation

Competence will be demonstrated:

1. when, given instruction, students rig equipment and lift it in a safe manner with the overhead crane

Criteria - Performance will be satisfactory when:

1. you demonstrate the safe operation of an overhead crane

H. Demonstrate portable electric and air tools operation

Competence will be demonstrated:

1. when, given the tools, students operate them in a safe manner

Criteria - Performance will be satisfactory when:

1. you operate portable electric and air tools in a safe manner

I. Demonstrate basic tools operation

Competence will be demonstrated:

1. when, given the knowledge, students demonstrate their knowledge of the proper use

Criteria - Performance will be satisfactory when:

1. you demonstrate the use of common shop tools

J. Demonstrate scaffolds and ladders use

Competence will be demonstrated:

1. when, given the scaffolding, student perform the set-up and work off of it
2. when, given the ladders, students demonstrate safe handling of them, and the ability to work off of them

Criteria - Performance will be satisfactory when:

1. you demonstrate the safe handling and set-up of scaffolding
2. you demonstrate the safe handling and use of ladders

K. Use the machinery's handbook

Competence will be demonstrated:

1. when students complete assignments to meet instructor's checklist

Criteria - Performance will be satisfactory when:

1. you use the Machinery's Handbook