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#### WILLIAM RAINEY HARPER COLLEGE CAREER AND TECHNICAL PROGRAMS DIVISION

**GENERAL COURSE OUTLINE**

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| --- | --- | --- | --- |
| Course Prefix | Course Number | Course Title | *Contact Hours* |
| MFT | 102 | INTRODUCTION TO MANUFACTURING AND SAFETY | 1.d*Lecture/Demonstration*2. *2. Lab/Studio*3.4 *Credit Hours* |

**Course Description**

Provides the student with an introduction to the manufacturing world and provides specific instruction to facilitate safe work practices in industrial environments. Introduces manufacturing specializations such as mechatronics, precision machining and welding. Covers fire safety, pressurized gases, electrical hazards, and safe machine usage. Students will also become acquainted with OSHA policy. Students will have the opportunity to earn the Safety Certification through Manufacturing Skill Standards Council (MSSC).

#### Topical Outline

1. Careers in Manufacturing
2. Trends in Manufacturing

**Ill.** Inside the Manufacturing Workplace

1. Introduction to Safety
2. Creating a Safe Workplace
3. Practicing Safety
4. Electrical Safety
5. Hand Tools
6. Power Tools
7. Machine Shop Safety
8. Industrial Gases and Welding
9. Industrial Chemicals
10. OSHA and EPA Rules

#### Method of Presentation

1. Lecture
2. Class Discussion
3. Other: Demonstration, Problem solving

#### Student Outcomes (The student should)

1. understand the careers available in manufacturing
2. understand and recognize a safe manufacturing workplace.
3. use appropriate protective clothing for the job.
4. perform safety and environmental inspections.
5. identify unsafe conditions and take corrective action.
6. operate hand and power tools in a safe manner
7. identify industrial gases and know safe handling practices.
8. identify agencies that regulate safety in the workplace.

#### Method of Evaluation

* 1. *Typical classroom assessment techniques*

\_Projects

\_Class participation

\_Objective tests

\_Studio/Lab performance

\_Final exam

\_Portfolios

\_Essays/Term papers

\_Oral examination

\_Research report

* 1. *Course content learning outcomes*

\_lLQuizzes

\_Group participation

\_Case study assignments

\_Homework

\_Midterm Exam

\_lLExams

1. *Additional assessment information (optional).*

Student presentations

#### Textbook

* 1. *Required*

o Manufacturing Skill Standards Council. High-Performance Manufacturing. Manufacturing Skill Standards Council, 2006

o Goetsch, David L.. Basics of Occupational Safety. Prentice Hall, 2010 ISBN:

9780135026137

o *Supplementary materials*

***None***

o *Software*

***None***

Prepared by: Kurt Billsten Fall 2012

CID: 3493

Language on the syllabi course materials developed by INAM funds:

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