

## EICC COURSE DEVELOPMENT MODEL (CDM)

**CATALOG COURSE NUMBER:** MFG-186

**COURSE TITLE:** Plant Safety

Originating College: CCC MCC SCC

Effective Term/Year: Fall 2014

Initiating Faculty Member: Kenneth Darmody

Initiating Department Coordinator: Ben Kettering

### Reason for submission: Check all that apply

New Course If yes, type of course:

**A&S**

To be considered for General Education?  Yes  No Category:

To be part of an A & S Concentration?  Yes  No Concentration:

CTE Program Title:  Required  Elective

General Education or Program Review  Reactivation of an inactive course  Making course inactive

Changing course; please explain:

Other; please explain:

### Contact Hours/Distribution of Contact Hours

#### Lecture Hours

#### Lab Hours

#### Clinical Hours

#### Coop Hours

Hours per Week: 1.00 Hours per Week: 0 Hours per Week: 0 Hours per Week: 0

Number of Weeks: 16.50 Number of Weeks: 16.50 Number of Weeks: 16.50 Number of Weeks: 16.50

**\*\*Note: If offering a course for the full fall or spring semester, the number of weeks is 16.5**

Total Lecture Hrs: 19.80 Total Lab Hrs: 0 Total Clinical Hrs: 0 Total Coop Hrs: 0

**Semester Hours Credit:** 1.00 if variable credit, give range:

Allow repeat\* for credit:  Yes  No

If yes, total course repeats allowed: If yes, total credits:

\*Note that repeat for credit means a student can pass the course and then repeat it for additional credit. An internship course is an example of a course that could be set up as repeatable for additional credit

### Course or courses this CDM replaces, if any:

**CATALOG COURSE DESCRIPTION:** This course is fundamental to the safe operation of all machine tools within the industrial application. Students will develop the basic skills and knowledge necessary to work safely within all aspects of the manufacturing industry. Basic safety, electrical safety, chemical health hazards, forklift safety and equipment safety will be covered.

### RECOMMENDED ENTRY LEVEL SKILLS/KNOWLEDGE:

### PRE-REQUISITE COURSES

| CCN# | COURSE TITLE |
|------|--------------|
|      |              |

### CO-REQUISITE COURSES

| CCN# | COURSE TITLE |
|------|--------------|
|      |              |

**PUBLISHED MATERIAL(S) USED FOR CDM DEVELOPMENT:** Kibbe, Richard, John Neely, Warren White, and Roland Meyer. Machine Tool Practices. Upper Saddle River: Prentice Hall, 2010. Print.

In general it is expected that source material will be dated within 5 years of this CDM date. If all materials/ textbooks cited above are older than this, please explain:

## GENERAL COURSE GOALS

Upon successful completion of this course the student should be able to:

Use safe practices when working in an industrial setting and operating equipment.

## TOPICAL OUTLINE

1. Safety Basics
2. Safety for Chemical Health Hazards
3. Electrical Safety
4. Forklift Operations Safety
5. Shop Safety

## COURSE OBJECTIVES

Upon successful completion of the course, a student should be able to:

1. Safety Basics
  - a. Describe the causes of on-the-job accidents.
  - b. Identify why good housekeeping can prevent accidents.
  - c. Describe why it is important to follow all company safety policies.
  - d. Describe typical personal protective equipment.
  - e. Identify why it is important to report all on-the-job accidents and near misses.
  - f. Explain when and why each type of equipment is used.
2. Safety for Chemical Health Hazards
  - a. Describe common work place chemical hazards.
  - b. Describe rules and guidelines for working safely around hazardous substances.
  - c. Identify how fires start.
  - d. Describe two types of respirators.
  - e. Describe common fire prevention practices.
  - f. Describe how to properly select and use chemical-resistant clothing.
  - g. Identify hazards associated with using solvents.
  - h. Describe the term physical hazard.
  - i. Describe the term health hazard.
  - j. Identify examples of physical hazard.
  - k. Identify examples of health hazard.
3. Electrical Safety
  - a. Identify what an electrical shock is.
  - b. Describe the factors that affect the severity of an electrical shock.
  - c. Describe how to give aid to an electrical shock victim.
  - d. Describe how to safely respond to an electrical fire.
  - e. Describe the general hazards associated with electrical maintenance.
  - f. Describe general aspects of working safely around electrical equipment.
  - g. Describe how to safely respond to an electrical fire.
4. Forklift Operation Safety
  - a. Describe general safety considerations associated with forklift operations.
  - b. Identify the major features of a forklift.
  - c. Describe how to operate a typical forklift.
  - d. Describe general guidelines for handling loads safely with a forklift.
  - e. Identify the basic principles of forklift stability.
  - f. Describe how basic principles of forklift stability affect forklift operations.
5. Shop Safety
  - a. Identify common shop hazards.
  - b. Identify and use common shop safety equipment.
  - c. Describe the safety practices in using the equipment particular to their program of study.
  - d. Identify the shop rules.

**RECOMMENDED METHODS OF INSTRUCTION:** *Check all appropriate methods of instruction to facilitate student learning of course objectives.*

Case Studies

Computer lab work

Class Discussions

Computer-assisted tools

- |   |  |
|---|--|
| <input type="checkbox"/> Computer-assisted writing  | <input type="checkbox"/> Conducting experiments            |
| <input checked="" type="checkbox"/> Demonstration or modeling                               | <input type="checkbox"/> Electronic interaction            |
| <input type="checkbox"/> Field observation  | <input type="checkbox"/> Field trips                       |
| <input type="checkbox"/> Guest speaker  | <input checked="" type="checkbox"/> Guided practice        |
| <input type="checkbox"/> In-class writing or editing workshops                              | <input type="checkbox"/> Journals                          |
| <input checked="" type="checkbox"/> Lecture   | <input type="checkbox"/> Library instruction and resources |
| <input type="checkbox"/> Model building   | <input type="checkbox"/> Peer review                       |
| <input type="checkbox"/> Readings   | <input type="checkbox"/> Role play                         |
| <input type="checkbox"/> Service learning   | <input type="checkbox"/> Simulation                        |
| <input checked="" type="checkbox"/> Student and instructor conferences                      | <input type="checkbox"/> Student collaborative learning    |
| <input type="checkbox"/> Student presentation   | <input checked="" type="checkbox"/> Student projects       |
| <input type="checkbox"/> Tests or quizzes   | <input type="checkbox"/> Worksheets/surveys                |
| <input type="checkbox"/> Writing assignments/exercises (graded or not)                      |  |
| <input checked="" type="checkbox"/> Other (please list specifics): Videotapes, Mill Project |  |

**RECOMMENDED EVALUATION METHODS:** Check all appropriate methods of evaluation to assess student achievement of course objectives.

- |  |   |
|--|---|
| <input type="checkbox"/> Class workshops                   | <input type="checkbox"/> Classroom discussions/participation  |
| <input type="checkbox"/> Collaborative work                | <input checked="" type="checkbox"/> Demonstration of skill(s) |
| <input checked="" type="checkbox"/> Individual conferences | <input type="checkbox"/> Journals                             |
| <input type="checkbox"/> Laboratory reports                | <input type="checkbox"/> Oral presentations                   |
| <input type="checkbox"/> Portfolios                        | <input type="checkbox"/> Pretest/Posttest                     |
| <input checked="" type="checkbox"/> Quizzes                | <input type="checkbox"/> Reading responses                    |
| <input type="checkbox"/> Student presentations             | <input checked="" type="checkbox"/> Student projects          |
| <input checked="" type="checkbox"/> Tests                  | <input type="checkbox"/> Writing Assignments                  |
| <input type="checkbox"/> Other (please list specifics):    |   |

**ATTENDANCE:** Policies on attendance will be formulated by the instructor and communicated to the students on the course syllabus.

**ACADEMIC DISHONESTY:** Policies on academic dishonesty can be found in the EICC student code of conduct published in the student handbook.

|  |       |
|--|-------|
| <b>CDM CREATION/REVIEW/REVISION INFORMATION</b>  |       |
| Originally Written by:   | Date: |
| Department Chair, Comments, & Date:  |       |
| Does similar curriculum exist at other EICC Colleges? <input type="checkbox"/> CCC <input type="checkbox"/> MCC <input type="checkbox"/> SCC <input type="checkbox"/> No |       |
| If yes, Counterparts Consulted, College, Comments & Date:  |       |
| <b>CDM Review or Revision Date:</b>  |       |
| Faculty member(s) & College:   |       |
| Does similar curriculum exist at other EICC Colleges? <input type="checkbox"/> CCC <input type="checkbox"/> MCC <input type="checkbox"/> SCC <input type="checkbox"/> No |       |
| Changes made to course which will require further review steps:  |       |
| <input type="checkbox"/> Making course inactive <input type="checkbox"/> Credit hours <input type="checkbox"/> Contact hours <input type="checkbox"/> Course Description |       |

25% or more of course objectives  Other minor revisions or no revisions

Dean Review, Comments & Date:



**If changes made require further review and approval:**

College Curriculum Committee Sign-off & Date:

IC Review Subcommittee Sign-off & Date:

Instructional Council Approval: