DATE SUBMITTED: 11/27/2012
DATE DICC APPROVED: 11/27/2012
DATE LAST REVIEWED: 7/31/13

COURSE INFORMATION FORM

DISCIPLINE: EHSS
COURSE TITLE: Industrial Hazard Control

CR.HR 3  LECT HR. 3  LAB HR.  CLIN/INTERN HR.  CLOCK HR.  

CATALOG DESCRIPTION
This course presents methods to conduct hazard assessments to identify common health, mechanical, electrical and chemical hazards in industry. Students will identify common problems and hazards, locate a supporting regulation or consensus standard and make recommendations to eliminate or control the hazard.

PREREQUISITES
EHSS 200

EXPECTED STUDENT OUTCOMES IN THE COURSE (ESO)
Upon completion of this course, the student will be able to:
1. List examples of the hierarchy of hazard controls.
2. Identify health hazards in the workplace.
3. Locate regulations in the OSHA standard.
4. Discuss the basics of process controls.
GENERAL EDUCATION OUTCOMES (ESO)

Specify which general education outcomes, if any, are substantially addressed by the course. Numbers in parentheses identify the Expected Student Outcomes linked to the specific General Education Outcome.

<table>
<thead>
<tr>
<th>Outcomes</th>
<th>ESO</th>
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PROGRAM-LEVEL OUTCOMES

CAREER AND TECHNICAL EDUCATION PROGRAM OUTCOMES

Specify which Career and Technical program outcomes, if any, are substantially addressed by the course by completing the “Career and Technical Education template” to show the relationship between course and program outcomes to assessment measures.

1. Students will demonstrate the ability to apply foundational skill in an industrial setting, safely and to industry guidelines.
2. Students will think critically and apply problem-solving skills.
3. The program will graduate individuals who exhibit competence in the entry-level skills of technical profession environmental health and safety technology.
4. The program will graduate individual who can interact and communicate with managerial, supervisory, labor and external public using a combination of skills for a clear exchange of ideas and information.

CLASS-LEVEL ASSESSMENT MEASURES

Student accomplishment of expected student outcomes may be assessed using the following measures. (Identify which measures are used to assess which outcomes.)

1. Assignments, (1-4)
2. Written examinations, (1-4)
3. Student participation and in-class discussions, (1-4)
Individual instructors may order this outline as fits the needs of their individual courses. In addition, they may place more emphasis on some areas than on others. What is assured is that this particular list is covered in the course. Other topics may be added to a course as the instructor sees fit, and as time and interest allow. An *asterisk can be used to mark an item as optional.

I. Elements in the Hazard Reduction
   A. Recognition Hazards
      1. Health
      2. Mechanical
      3. Electrical
      4. Chemical
   B. Common Methods of Hazard Analysis
      1. Job Safety Analysis (JSA)
      2. Probability of Failure
      3. Hazard Analysis Table
      4. Risk Assessment
      5. Other
   C. Hazard Controls
      1. Engineering
      2. Administrative
      3. Personal Protective Equipment

II. Examples of Hazard Reduction in Industry*
   A. Metals Production - Aluminum, Iron, and Steel
   B. Forging and Foundry Operations
   C. Abrasive Blasting
   D. Acid and Alkali Cleaning of Metals
   E. Metal Degreasing
   F. Metal Grinding, Polishing, and Buffing
   G. Heat Treating
   H. Welding
   I. Metal Machining
   J. Electroplating
   K. Metal Thermal Spraying
   L. Painting