

Revised by: C. Bertram
Reviewed by: R. Mallard
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Board approval: December 9, 2010

Industrial Education Safety (IES) 1065 Machinery and Machine Guarding (1.5 Units)
[formerly Industrial Education Safety 61]

Prerequisite: None

Total Hours: 26 hours lecture

Catalog Description: This course will cover various types of common machinery and the related safety standards. Guidance is provided on the hazards associated with various kinds of machinery and the control of hazardous energy sources (lockout/tagout). The course presents an approach to machinery inspection that enables participants to recognize hazards and to provide options to achieve abatement. These hazards include mechanical motions and actions created by points of operation and other machinery processes. This course is offered on a Pass/No Pass basis with the option to receive a letter grade.

Type of Class/Course: Degree Credit

Textbook: *29 CFR §1910 General Industry Regulations*. Davenport, IA: Mangan Communications, Inc., 2008. Print.

Cal-OSHA General Industry Safety Orders. Davenport, IA: Mangan Communications, Inc., 2008. Print.

Additional Required Materials: None

Course Objectives:

By the end of the course, a successful student will be able to

1. identify basic machinery terms,
2. identify common machines found within a broad spectrum of industries,
3. identify hazards that occur in or on machinery,
4. select the appropriate Occupational Safety and Health Administration (OSHA) Standard that applies to a hazard, and
5. identify options to achieve abatement.

Course Scope and Content:

Unit I Machine Guarding Standards
A. Hazard Recognition
B. Machine Guarding Methods
C. Subpart O, 29 Code of Federal Regulations (CFR)1910.211 and 212
D. Title 8, §§3944 & 3945

Unit II Subpart P, 29 CFR 1910.213, .215, and .219

Unit III Site Inspection
A. Subpart O, 29 CFR 1910.216, .217, and .218
B. Title 8, §§3328
C. Industrial Robots

Unit IV Site Inspection
A. Subpart J, 29 CFR 1910, Lockout/Tagout
B. Inspection Write ups



Learning Activities Required Outside of Class: None

Methods of Instruction:

1. Lecture
2. Group exercises

Methods of Evaluation:

1. Written final exam
2. Performance observation