



ME361 Industrial Safety (Required Course)

Code and Name: ME361 Industrial Safety

Credit Hours: 1 (Lecture: 1, Tutorial: 0)

Textbook:

- Industrial Safety and Health Management, C. Ray Asfahl, and David W. Rieske, 6th Edition, Pearson Education Inc., 2010.

Other References:

- Hand-outs and class notes: distributed electronically to provide information on covered topics.
- Internet links such as http://en.wikipedia.org/wiki/Occupational_safety_and_health

Course Description:

Basic safety definitions. Accident causes and costs. Hazard and risk assessment. Accident analysis, investigation, and prevention. Safety systems. Accident reports and records. Inspection and accident investigation. Plant layout and arrangement. Hazardous materials and environmental health. Material handling and safety. Noise. Workshop safety and machine guarding. Tools and Personal protection equipment. Fire prevention.

Pre-requisites: None

Co-requisites: None

Course Learning Outcomes:

With relation to ABET Student Outcomes (SOs: 1-7)

1. Define the concept of safety (1)
2. List accident causes & costs (1)
3. Recognize the steps needed for analysis of accident causes (1, 2)
4. Outline popular techniques for risk assessment. (1, 2)
5. State the steps needed for preparation of accident reports and records (1, 2)
6. Recognize the safety aspects of explosion and fire prevention, hazardous materials, environment and noise (1, 2, 4)
7. Define the uses & drawbacks of PPE (1)
8. Create new solutions for industrial safety problems. (1, 2, 4)
9. Illustrate successful interaction with classmates. (3, 4)
10. Show punctuality and follow time schedule. (4)
11. Demonstrate presentation skills to describe industrial safety problems (3)

Topics to be covered:

- Introduction
- Hazard analysis and workplace hazards
- Risk, health, and safety standards
- Inspection and accident cost
- Accident analysis, investigation, and prevention
- Facilities Layout
- Mid-term Exam
- Hazardous Materials
- Hazardous Materials and environmental health
- Environment & Noise
- Fire





Grading Policy:

The grading for the course are 60% coursework and 40% Final Exam. The course work consists of two Midterm Exams, where each midterm exam is worth 20%. It also includes quizzes, homework, and projects for the remaining 20% that is modified by the course instructor.

