



H-Form ISE 331

Course Information:	
Code and Title:	ISE 331 Industrial Safety Engineering
Prerequisites:	ISE 260
Co requisite (if any)	
Credit Hours: 2	Lecture Hrs. (30), Tutorial Hrs. (0), Lab (0), Total Credits (30)
College/ Department:	College of Engineering/Industrial and Systems Engineering

Course Description:
This course details principles of industrial accident prevention; accident statistics and costs; appraising safety performance; recognizing industrial health and safety hazards and recommending safeguards. Includes a study of the Occupational Safety and Health Act.

Course Objectives:
This course provides students with a comprehensive foundation in the field of occupational safety and health, covering various essential aspects. Firstly, students will develop a basic understanding of industrial accident problems, delving into historical antecedents, relevant legislation, and the general principles of occupational safety and health. Secondly, the course aims to cultivate an awareness of accident sources, causes, and environmental factors contributing to hazardous conditions and unsafe acts within industrial workplaces. Additionally, students will gain knowledge of appraisal methods, analysis procedures, and appropriate follow-up techniques related to industrial accidents. The curriculum also focuses on fostering an understanding of common hazards in the man-machine environment, emphasizing the principles of recognition, evaluation, and corrective action measures. Furthermore, students will become familiar with the Occupational Safety and Health Act and key safety standards outlined by OSHA. The course also endeavors to develop insights into the basic elements of effective occupational safety and health programs, acquainting students with specific health and safety activities and practices aimed at formulating safe work procedures and habits. Lastly, the course raises awareness about a manager's responsibilities for safety in the workplace. Through these diverse objectives, students will be well-equipped to navigate and contribute to the multifaceted field of occupational safety and health.

Course Learning Outcomes		
		PLO
Knowledge Understanding		
1.1	Recognize workplace hazards and hazard assessment based on safety data sheets	K4
Skills		
2.1	Evaluate a system design, component, or process to meet desired health and safety needs for an organization within realistic constraints.	S2
2.2	Apply engineering, administrative, and personal protective equipment (PPE) hazard protection	S3
2.3	Develop responsibilities for workplace safety functions	S3
Values		
3.1	Judge the impact of safety concepts in a workplace	V2

Textbook:			
Title:	Industrial Safety and Health Management,		
Author(s):	Asfahl, C. Ray & David W. Rieske,		
Publisher:	Prentice-Hall	Year and Edition:	6 th ,2009
Other Useful Resources:	Safety and Health for Engineers, Roger L. Brauer, John Wiley & Sons, Inc., 2nd Edition, 2006 Principles of Industrial Safety, Joel M. Haight, American Society of Safety Engineers, 1st Edition, 2013.		

