



Accident Prevention, Inspection and Investigation (OSHT 1313)

Credit: 3 semester credit hours. (2 hours lecture, 1 hour lab)

Prerequisite: Passed the writing portion of COMPASS.

Course Description

Principles and practices providing a basis for understanding the nature of occupational hazard recognition, accident prevention, loss reduction, inspection techniques, and accident investigation analysis.

Required Textbook and Materials

1. Accident Prevention Manual for Business and Industry Administration and Programs, 13th edition
 - a. ISBN number is 978-0-87912-280-5
2. 11/2 – 2 inch 3 ring binder with pockets
 - b. Notebook paper for binder
 - c. Organization of notebook; contents should include:
 - Cover page with first and last name
 - Title of course
 - Day and time of weekly class meeting
 - Dividers labeled, syllabus, PPT. lectures, study questions, handouts, exams

Course Objectives

Upon completion of the course the student will be able to:

1. Describe the components of an effective accident investigation. (SCANS: C1, C3, C5, C7,C9)
2. Analyze factors which contributed to accidents. (SCANS: C12, C14,C115,C18, F1)
3. Recommend appropriate changes to prevent further accidents. (SCANS: F3, F4,F6, F9)
4. Explain the components of an effective safety inspection and make appropriate recommendations to correct hazards identified by the inspection. (SCANS: F11, F13, F16, F17)

SCANS Skills and Competencies

Beginning in the late 1980's, the U.S. Department of Labor Secretary's Commission on Achieving Necessary Skills (SCANS) conducted extensive research and interviews with business owners, union leaders, supervisors, and laborers in a wide variety of work settings to determine what knowledge workers needed in order to perform well on a job. In 1991 the Commission announced its findings in *What Work Requires in Schools*. In its research, the Commission determined that "workplace know-how" consists of two elements: foundation skills and workplace competencies.

Course Outline

- I. Welcome to LIT:
 - A. Introduction of faculty and students
 - B. Expectations
 - C. Policies

- II. Current Events
 - A. Chemical Safety Board Reports
 - B. Contributing Factors

- III. Historical Perspectives
 - A. History of the U.S. Safety and Health Movement
 - B. Achievements of the Safety Movement

- IV. Implementing a Safety Culture
 - A. Management role
 - B. Union Role
 - C. Reward and Incentive Programs
 - D. Changing Attitudes

- V. Incidents and Loss Control
 - A. Terminology
 - B. Effects of Hazards on the Work Process
 - C. Controlling Hazards
 - D. Liability
 - E. Processes of Loss Control

- VI. Development of Safety, Health, and Environmental Auditing
 - A. Purpose and Scope
 - B. SH&E Audit Process

- VII. Hazard Analysis
 - A. Philosophy
 - B. What is Hazard Analysis?
 - C. Who Should Participate in Hazard Analysis

OSHT 1313
Course Syllabus

VIII. Job Safety Analysis

- A. Breaking the Job Down into Steps
- B. Identifying Hazards and Potential Incident Causes

IX. Inspection

- A. Purpose
- B. Types of Inspection

X. Incident Investigation

- A. Why and When Are Incidents Investigated
- B. Who Should Conduct the Investigation?
- C. What to Investigate
- D. Conducting Interviews
- E. Investigation Report and Implementing Corrective Action

XI. Estimating Incident Costs

- A. Definitions of Work Incidents for cost Analysis
- B. Example of a Cost Estimate
- C. Off the Job Disabling Injury Cost

XII. OSHA Record-Keeping Requirements

- A. Incident Reports and Injury Records
- B. Injury Data Analysis
- C. Incidence Rates

XIII. Worker's Compensation in the United States

- A. Early Laws and Legislation
- B. Objectives of Worker's Compensation
- C. Major Characteristics
- D. Benefits
- E. Degree of Disability

XIV. Developing and Emergency Management Plan

- A. Types of Emergencies
- B. Plan of Action Considerations
- C. Outside Help

OSHT 1313
Course Syllabus

XV. Vehicle Safety Program

- A. Responsibility
- B. Driver Safety Program
- C. Collision Reporting Procedures
- D. Selection of Drivers
- E. Preventive Maintenance

XVI. Office Injuries

- A. Office Hazard Prevention
- B. Types of Disabling Injuries
- C. Basic Office Safety Procedures

XVII. Laboratory Safety Management

- A. HAZCOM
- B. Chemical Safety/Practices
- C. Biological Safety/Bloodborne Pathogens
- D. Radiation Hazards
- E. Emergency Planning

XVIII. Basic Process Safety Management Requirements

- A. Process Risk Management
- B. Elements of the Process Safety Management Program

Grading Scale

A = 90-100

B = 80-89

C = 70-79

D = 60-69

F = Less than 60

*Notebooks will be graded the evening of the final.

Course Evaluation

- Test 1 = 25%
- Test 2 = 25%
- Notebook = 10%
- Final = 40%

Course Requirements

1. Students are required to participate in labs. You cannot make up a lab assignment or activity.

Course Policies

1. It is the responsibility of students to obtain notes for any class periods missed. Class schedule may change, so it is imperative to attend class to keep abreast of changes in the order of topics and/or tests.
2. There will be no food, drinks or tobacco products consumed or used while in class.
3. Please do not bring children to class.

Disabilities Statement

The Americans with Disabilities Act of 1992 and Section 504 of the Rehabilitation Act of 1973 are federal anti-discrimination statutes that provide comprehensive civil rights for persons with disabilities. Among other things, these statutes require that all students with documented disabilities be guaranteed a learning environment that provides for reasonable accommodations for their disabilities. If you believe you have a disability requiring an accommodation, please contact the Special Populations Coordinator, at (409) 880-1737 or visit the office located in the Cecil Beeson Building.

Course Schedule

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| Week 1 | Chapter 2: The Safety, Health, and Environmental Professional |
| Week 2 | Chapter 3: Safety Culture |
| Week 3 | Chapter 6: Loss Control Programs |
| Week 4 | Chapter 7: Safety, Health, and Environmental Auditing |
| Week 5 | Exam I |
| Week 6 | Chapter 9: Identifying Hazards |
| Week 7 | Chapter 10: Incident Investigation, Analysis, and Costs |
| Week 8 | Chapter 11: Injury and Illness Record Keeping, Incidence rates, and Analysis |
| Week 9 | Chapter 8: Workers' Compensation |
| Week 10 | Chapter 18: Emergency Preparedness |
| Week 11 | Exam II |
| Week 12 | Chapter 26: Process Safety Management |
| Week 13 | Chapter 22: Transportation Safety Programs |
| Week 14 | Chapter 23: Office Safety & Chapter 24: Laboratory Safety |
| Week 15 | Final |

OSHT 1313
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Contact Information:

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Office Hours: MTWR 12:00 – 4:00