

**ENVH 460 3 (credits)/ 560 (4 credits)****Organizing and Administering Industrial Safety and Health Programs**

The undergraduate students would not have to do the Company Health and Safety Accident Prevention Program mentioned at the end of the matrix).

Spring Quarter, 2009, 3 Credits ENVH 460 / 4 Credits ENVH 560, 11 weeks

Time: Section A and B Tuesday, 10:30 AM – 2:20 PM

Location: T-474A

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Phone: (206) 856-6660 Fax (206) 524-6646

Text: OSHA 29 CFR 1910 General Industry Occupational Safety and Health Standards (Provided)

**All students who successfully complete the course will also receive an OSHA 511 30 hour General Industry Safety and Health Standards Card.**

<http://faculty.washington.edu/rgleason> Web Site Address

**WEEK Monday Class: Chapters/Topic(s)/Events**

March 31	Introduction to OSHA and WISHA, Workers Compensation Accidents and Their Effects Theories of Accident Causation
April 7	The OSHAct, Standards, and Liability OSHA WISHA Inspections, Violations, Citations, Appeals Ergonomic Hazards and Repetitive Strain
April 14	Stress and Workplace Violence, Late Night Retail Heat Stress Falling Hazards / Walking and Working Surfaces (1910.22)
April 21	Machine Guarding (1910.212) Lockout-Tagout 1910.147 Electrical Hazards (Subpart S)
April 28	Fire and Emergency Egress Confined Spaces (1910.146) Welding Safety
May 5	Noise 1910.95 Respiratory Protection (1910.134) Chemical Hazard Communication, MSDS (1910.1200)
May 12	Storage of Flammable Materials, Fire Codes Bloodborne Pathogens (1910.130) Industrial Hygiene (PEL's) 1910.1000

May 19	Forklift Safety (1910.178) Personal Protective Equipment (1910.132) PPE Hazard Assessment Hard Hats, Safety Glasses, Harnesses, Safety Boots/ ANSI
May 26	OSHA Record Keeping Ladder Safety Scaffold Safety
June 2	Accident and Incident Investigation Root Cause Analysis Accident Prevention
June 9	Final Exam

Grades are based upon a midterm (20%), a final (20%), a written Company Health and Safety Program (25%), a 20 minute oral presentation to the class for a specific industry (15%) and Homework (20%).

**Learning Objectives:** At the end of this course, the student will be able to:

1. identify the components needed to provide a safe and healthful work environment through case studies and review of injury statistics provided in the course.
2. analyze safety and health issues resulting from worker complaints or OSHA violations and suggest potential remedies.
3. identify potential workplace safety and health hazards and determine how to mitigate the hazards through engineering controls, administrative controls and personal protective equipment.
4. demonstrate research skills necessary for mastery of the topic, which will entail a presentation on a specific industry. Worker compensation claims in the industry selected by the student will be evaluated and injury prevention methods reviewed in the report.
5. conduct basic safety inspections using strategies that they have developed through hazard identification and job hazard analysis.
6. identify and demonstrate a working knowledge of the occupational health and safety regulations contained in the Federal Register under the 29 CFR 1910 standards.
7. review the principles for developing and implementing a successful occupational health and safety program and evaluation of a work site.

8. identify the major historical events that influenced accident prevention activities in the pre/post industrial revolution.
9. compare past and contemporary philosophies of safety and accident prevention as well as be able to compare injury data from previous decades.
10. identify the moral and economic consequences associated with the major classifications and causes of accidents and the cost of workers compensation based on the risk classes of industries.
11. apply psychological principles to individual acts of unsafe behavior and unsafe acts and the prevention of each.
12. explain the causal relationship between accidents and liability including the no fault workers compensation system and the third party liability type lawsuit.
13. identify the requirements of training programs in the workplace under the existing OSHA and State-OSHA Requirements.
14. identify basic fire prevention and protection programs in the workplace.
15. identify essential elements of an occupational safety and health program and the components of international standard organizations in safety and health..
16. describe basic components of an effective company safety and health program including management commitment, employee involvement, hazard recognition and control and training..

### **ENVH 560 Organizing and Administering Industrial Safety and Health Programs** Class Assignments:

Each graduate student (ENVH 560) will write a complete Company Health and Safety Accident Prevention Program for a specific type of industry. The list below gives examples of the types of industries and the types of chapters in your manual.

Possible Industries (although you can select any type of industry you would like)

Aluminum Smelter	Meat Packing
Auto Repair Shops	Metal Fabrication Shop
Bakery	Mining
Chemical Manufacturer	Pesticide Applicator
Construction Industry	Petroleum Refining
Food Processing	Plating Shop
Foundry	Plumbing Contractor
Grain Elevator	Pulp Mill
Grocery Store	Retail Establishment
Hospital/ Health Care	Sawmill

Laboratory  
Laundry  
Logging

Service Station  
Shipbuilding  
Etc.

These are some of the chapters that will need to be considered for your manual:

\*Accident Prevention

\*Chemical Hazard Communication, MSDS

\*Personal Protective Equipment, Job Hazard Assessment

\*Ergonomics

New Employee Orientation

Hearing Protection

Respiratory Protection

Medical Monitoring

Bloodborne Pathogen Program

Asbestos Awareness

Lockout-Tagout

Confined Space Entry

Machine Guarding

Motor Vehicle Safety

Ergonomics

Electrical Safety

Fall Protection

Fire Protection/Emergencies

There should be at least 8 chapters. The first four \*must be included and any of the other topics could be included in the remainder of the chapters.