

Course Syllabus



ENVIRONMENTAL & OCCUPATIONAL HEALTH SCIENCES
SCHOOL OF PUBLIC HEALTH · UNIVERSITY of WASHINGTON

ENVH 460/560 Occupational Safety Management

ENVH 460 - 3 Credits ENVH 560-4 Credits

Instructor Name: Rick Gleason, CIH, CSP

Time: Tuesdays 10:30 am - 1:20 pm

Location: T-663

Spring Quarter, 2016, 4 credits for ENVH 560 / 3 Credits for ENVH 460, 10 weeks

Time: Tuesday, 10:30 – 1:20 pm (ENVH 460) 10:30-2:20 (ENVH 560)

Location: T-663

Instructor: Rick Gleason, MSPH, CIH, CSP rgleason@uw.edu

Phone: (206) 856-6660

<http://faculty.washington.edu/rgleason>

Office Hours Monday, Thursday 8 AM – 5 PM or by appointment

Text None Required. Everything will be available free online.

Course Description:

This class will cover the basics of a company safety and health program and the minimum requirements under Federal OSHA and State OSHA. Students will also receive their 30 hour OSHA General Industry Safety and Health Training Card from OSHA at the successful completion of the course. All students will present their findings for specific industry hazards and graduate students will develop an additional industry safety and health written accident prevention program.

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.

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

March 29 Introduction to OSHA and WISHA, Workers Compensation

Accidents and Their Effects, Consensus Standards

Theories of Accident Causation

April 5 The OSHA Act, Standards, and Liability

OSHA WISHA Inspections, Violations, Citations, Appeals

Ergonomic Hazards and Repetitive Strain

April 12 Late Night Retail -Violence Prevention / Motor Vehicle Safety

Uniform Building Codes, International Building Codes

Falling Hazards / Walking and Working Surfaces (1910.22)

April 19 Machine Guarding (1910.212)

Lockout-Tagout 1910.147

Electrical Hazards (Subpart S)

April 26	Fire and Emergency Egress Confined Spaces (1910.146) Welding Safety
May 3	Noise 1910.95 Respiratory Protection (1910.134) Chemical Hazard Communication, MSDS (1910.1200) / Asbestos
May 10	Storage of Flammable Materials, Fire Codes Bloodborne Pathogens (1910.130) Industrial Hygiene (PEL's) 1910.1000 / Process Safety Management 1910.119
May 17	Forklift Safety (1910.178) Personal Protective Equipment (1910.132) PPE Hazard Assessment Hard Hats, Safety Glasses, Harnesses, Safety Boots/ ANSI
May 24	OSHA Record Keeping / Emergency Eyewash / Heat Stress Ladder Safety / Scaffold Safety
May 31	(No class--Material Provided on Canvas) Accident and Incident Investigation Root Cause Analysis Accident Prevention Take Home Exam Provided on Canvas
June 7	Take Home Final Exam Due

Grading

Undergraduate grades (ENVH 460) are based upon a midterm (25%), a final (25%), a 20 minute oral presentation to the class for a specific industry (25%) and Homework (25%).

Graduate Grades (ENVH 560) 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%).

To request academic accommodations due to a disability, please contact Disability Resources for Students, 448 Schmitz Hall, 206-543-8924 (V/TTY). If you have a letter from Disability Resources for Students indicating that you have a disability which requires academic accommodations, please present the letter to me so we can discuss the accommodations you might need in this class.

- Academic Integrity Statement - Students at the University of Washington (UW) are expected to maintain the highest standards of academic conduct, professional honesty, and personal integrity.
The UW School of Public Health (SPH) is committed to upholding standards of academic integrity consistent with the academic and professional communities of which it is a part. Plagiarism, cheating, and other misconduct are serious violations of the University of Washington Student Conduct Code (WAC 478-120). We expect you to know and follow the university's policies on cheating and plagiarism, and the [SPH Academic Integrity Policy \(Links to an external site.\)](#). Any suspected cases of academic misconduct will be handled according to University of Washington regulations. For more information, see the University of Washington Community Standards and Student Conduct website.

Additional Graduate Student ENVH 560 Organizing and Administering Industrial Safety and Health Programs Class Assignment (Undergraduate Students are not required to complete this assignment)

Each **graduate** student 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. A presentation to the class on the hazards of that industry will also be provided.

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	Service Station
Laundry	Shipbuilding
Logging	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

Machine Guarding

Medical Monitoring

Motor Vehicle Safety

Bloodborne Pathogen Program

Ergonomics

Asbestos Awareness

Electrical Safety

Lockout-Tagout

Fall Protection

Confined Space Entry

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.

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