Course Syllabus 🖈

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ENVH 460/560 Occupational Safety Management

ENVH 460 - 3 Credits ENVH 560-4 Credits Instructor Names: Rick Gleason, Edward Kasner Winter 2023

Time: Tuesdays 11:30 am - 2:20 pm Location: HSEB 215

Winter Quarter, 2023, 4 credits for ENVH 560 / 3 Credits for ENVH 460, 10 weeks
Time: Tuesday, 11:30 – 2:20 pm (ENVH 460 and 560)
Location: HSE B215
Instructor: Rick Gleason, <u>rgleason@uw.edu (206) 856-6660 (mailto:rgleason@uw.edu)</u>
Edward Kasner <u>ejkasner@uw.edu (mailto:ejkasner@uw.edu)</u> 206-616-4225

Office Hours by appointment

Each student will give a presentation to the entire class of approximately 15 minutes and approximately 15 powerpoint slides. Each student should also prepare 3 questions regarding their topic at the end of their powerpoint. The presentation will be worth 100 points. Questions from the student presentation will be incorporated into the final exam.

Total points for the class are 10 weekly assignments of 25 points each

One presentation 100 points one final exam 100 points for a total of 450 points.

You can find model powerpoint programs in the Files section to the left as well as on the Labor and Industries DOSH Website:

<u>https://lni.wa.gov/safety-health/safety-training-materials/online-safety-training</u> (<u>https://lni.wa.gov/safety-health/safety-training-materials/online-safety-training)</u>

ENVH 460/560 Presentations

January 10, 2023

Workplace Violence Prevention: Johanna Wood Driving Motor Vehicle Safety: Tarnvir Gadhri Introduction to OSHA: Gulseerut Grewal Respirable Silica: Kyle Evans

January 17, 2023

Late Night Retail Worker Safety: Xeyneb Al-Azadi Access Medical Records Exposure: Ashlyn Gonzalez-Soriano Office Safety: May Kim Teen Safety: Matthew Deinitchenko

January 24, 2023

Machine Guarding: Flora McAllister Lockout-Tagout (LOTO): Heather Larsen Electrical Safety: NA Heat Illness: Sarina Tran

January 31, 2023

Fire Extinguishers: Nathan Winward

Welding Safety: John Lykins Process Safety Management: Cassady Surfleet

February 7, 2023

Confined Spaces: Yoojin Kang

Hearing Conservation Noise: Asheton Gilbertson

Arsenic: Angela McCown

Respiratory Protection: Kyla Haggith

Hazcom Chemical Hazard Communication (GHS): Renea Ramanan

February 14, 2023

Flammable Material Storage: NA

Bloodborne Pathogens: Jeremy Leung

Solvent Safety: Rothboury Doung

Occupational Asthma: Jacqueline Williamson

February 21, 2023

Forklift (Powered Industrial Trucks): Bridget Ury

Eye Safety: Kaylen Kawakami

Hand Safety: Maggie Woodwell

Ergonomics: Matt Hansen

<u>February 28, 2023</u> OSHA Recordkeeping: NA Egress Fire: Elise Munerman Preventing Slips Trips and Falls: Nai'A Freeman Scaffold Safety: Josh Pandher

March 7, 2023

Methylene Chloride: Mae Coker

Emergency Eyewash: Allison Clonch

Last Assignment Due March 15, 2022 No Class

<u>Text provided free as a PDF under the course File Section. It is the OSHA 7500 Introduction to</u> <u>Safety and Health Management (330 pages) provided by the Pacific Northwest OSHA Training</u> <u>Center, Region X.</u>

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. 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.

Each student will give a presentation to the entire class of approximately 15 minutes and approximately 15 powerpoint slides. Students in attendance will be able to take know the elements on the final exam as the final will come from the questions of each of the students. The presentation will be worth 100 points.

Total points for the class are 10 weekly assignments of 25 points each

One presentation 75 points, one final exam 75 points for a total of 400 points.

Access and Accommodations

Your experience in this class is important to me. If you have already established accommodations with Disability Resources for Students (DRS), please communicate your approved accommodations to me at your earliest convenience so we can discuss your needs in this course.

If you have not yet established services through DRS, but have a temporary health condition or permanent disability that requires accommodations (conditions include but are not limited to mental health, attention-related, learning, vision, hearing, physical or health impacts), you are welcome to contact DRS at 206-543-8924 or <u>uwdrs@uw.edu (mailto:uwdrs@uw.edu)</u> or <u>disability.uw.edu</u> (<u>http://depts.washington.edu/uwdrs/)</u>. DRS offers resources and coordinates reasonable accommodations for students with disabilities and/or temporary health conditions. Reasonable accommodations are established through an interactive process between you, your instructor(s) and DRS. It is the policy and practice of the University of Washington to create inclusive and accessible learning environments consistent with federal and state law.

Religious Accommodations

Syllabus for ENV H 460 A Wi 23: Occupational Safety Management

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 though 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.
- 17. understand the major classifications and causes of accidents and cost of workers compensation

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

Jan. 3, 2023 Introduction to OSHA and WISHA, Workers Compensation

Accidents and Their Effects, Consensus Standards, Accident Causation

Jan. 10, 2023 The OSHAct, Standards, and Liability

OSHA WISHA Inspections, Violations, Citations, Appeals, Building Codes, Working Alone, Silica, Cranes in General

Industry

Jan. 17, 2023 Late Night retail -Violence Prevention / Driving Safety, Motor Vehicle Safety / Access to Medical records

Office Safety/Teen Safety

Jan. 24, 2023 Machine Guarding (1910.212)

Lockout-Tagout 1910.147

Electrical Hazards (Subpart S)

Heat Illness (Outdoor Heat Related Illness)

Jan, 31, 2023 Fire and E

Fire and Emergency Egress

Fire Extinguishers

Confined Spaces (1910.146)

Welding Safety

Process Safety management

Feb. 7, 2023 Ventilation, Exposure Controls, Noise 1910.95

Respiratory Protection (1910.134)

HazCom Chemical Hazard Communication, MSDS /

Asbestos / Arsenic

Feb. 14, 2023Storage of Flammable MaterialsBloodborne Pathogens (1910.130)

Methylene Chloride / Occupational Asthma

Feb. 21, 2023Forklift Safety (Material Handling) (1910.178)

Personal Protective Equipment (1910.132) / Eye Safety / Hand

Safety / Ergonomics

Feb. 28, 2022 OSHA RecordKeeping / Emergency Eyewash /

Ladder Safety / Scaffold Safety

March 7, 2023 Accident and Incident Investigation (Last Class) Root Cause Analysis Last Class

Take Home Exam Provided on Canvas

March 14, 2023 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 bases 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 <u>SPH Academic Integrity Policy</u>

<u>(http://sph.washington.edu/students/academicintegrity/)</u>. 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

2/8/23, 1:59 PM	Syllabus for ENV H 460 A Wi 23: Occupational Safety Manag
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 511 30 hour General Industry Safety and Health Standards Card.

Course Summary:

Date	Details Due
Tue Jan 10, 2023	Assignment 1 (https://canvas.uw.edu/courses/1612720/assignments/7787603)
Tue Jan 17, 2023	Assignment 2 (https://canvas.uw.edu/courses/1612720/assignments/7787606)
Tue Jan 24, 2023	Assignment 3 (https://canvas.uw.edu/courses/1612720/assignments/7787607)
Tue Jan 31, 2023	Assignment 4 (https://canvas.uw.edu/courses/1612720/assignments/7787608)
Tue Feb 7, 2023	Assignment 5 (https://canvas.uw.edu/courses/1612720/assignments/7787609)
Tue Feb 14, 2023	Assignment 6 (https://canvas.uw.edu/courses/1612720/assignments/7787610)
Tue Feb 21, 2023	Assignment 7 (https://canvas.uw.edu/courses/1612720/assignments/7787611)
Tue Feb 28, 2023	Assignment 8 (https://canvas.uw.edu/courses/1612720/assignments/7787612)
Tue Mar 7, 2023	Assignment 9 (https://canvas.uw.edu/courses/1612720/assignments/7787613)
Tue Mar 14, 2023	Assignment 10 (https://canvas.uw.edu/courses/1612720/assignments/7787604)
	Assignment 12 Graduate Student Acc. Prev Program due by 11:59pm (https://canvas.uw.edu/courses/1612720/assignments/7787605)
	Roll Call Attendance (https://canvas.uw.edu/courses/1612720/assignments/7787614)