

# Course Syllabus

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**ENVH 564**  
**RECOGNITION OF HEALTH AND SAFETY HAZARDS IN INDUSTRY**  
**Autumn Quarter, 2018**  
**2 Credits**

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**Time:** Mondays 10:30 - 12:20 (with extensions for field trips)  
**Place:** HSE E212 (Health Sciences Building E-wing)  
**URL:** <https://canvas.uw.edu/courses/1220663>

**Introduction:** This course is designed to provide an introduction to the recognition of occupational safety and health hazards and approaches to controlling hazards, primarily through tours of representative local industrial facilities. Lectures consist of an introduction to hazard recognition and control strategies, and discussions will address the hazards of the various industries toured.

**Learning objectives.** At the conclusion of this course, students will be able to:

1. Identify hazards associated with specific industrial processes.
2. Identify alternative control options for several health and safety problems in a wide range of industrial processes.
3. Develop a strategy for conducting a walkthrough assessment of an industrial process.
4. Describe hazards in clear written language associated with industrial processes using specific field observations.
5. Clearly communicate health and safety hazards to various audiences.

## Student Requirements:

1. Complete assigned readings in advance. Ear plug use video on first day is required.
2. Be prepared for the week's lecture or site visit.
3. Students must be prepared and dressed appropriately for all field trips. If not dressed appropriately, student will not be allowed on site.

## 4. Students complete:

- **Industry Reviews:** A summary of each industry being visited will be due the week of that site visit for the 2<sup>nd</sup> and 5<sup>th</sup> site visits only. The summary will include the following sections (please keep them in this order): Definition of Industry, Processes, Hazards, and Exposure Controls and Applicable Health and Safety Standards. For more detail on the written reports, see page 8 of the syllabus. These documents should be less than 2 pages in length, excluding references (please use multiple references). For the 3<sup>rd</sup> and 4<sup>th</sup> site visits, the same information should be investigated, but a written report is not required. Your knowledge of the industry may be tested on the way to the sites. For an example, see Files>Report Outlines & Examples>ExampleReview in Canvas.
- **Walk-Through Report:** This technical report will summarize the fourth tour. It should describe the company, their health and safety program structures, the company-specific production processes, raw materials used, potential for hazards and exposures, and recommendations for controls. The report should be no longer than 10 pages (excluding references) and should include appropriate bibliographic citations, including primary research sources. The report will be due 2 weeks after the site visit. Please use the structure shown in the guidance document where appropriate (page 9 of the syllabus) and submit the report in the Assignment section for "Site Visit Report". For an example, see Files>Report Outlines & Examples in Canvas.
- **Hazard Identification Exercises:** These exercises will help the students develop skills in hazard and controls identification. These short exercises will be one page or less in length and due one week after the site visits. See page 10 of the syllabus for the questions. Only four of these will be required, as one will not be required for the fourth site visit for which you write a site visit report. See Files>Report Outlines & Examples>HazIDExQuestions2015.docx in Canvas for the questions.
- **Brief In-Class Quizzes:** A brief in-class quiz, on days that there is no site visit, will be given to assess whether students have completed the out-of-class reading/viewing.
- **There will be no final exam.**

**Grading:** Industry reviews (20%, 2 @ 10% each), Hazard identification exercises (30%, 4 @ 7.5% each), Walk-through report (40%), Quizzes (5%), and Class participation (5%).

Following is the grading scale that will be used:

# grade	Letter	%age	# grade	Letter	%age
4	A	100	2.8	B-	83
3.9	A	98	2.7	B-	82
3.8	A-	96	2.6	B-	81
3.7	A-	94	2.5	B-	80
3.6	A-	92	2.4	C+	79
3.5	A-	90	2.3	C+	77
3.4	B+	89	2.2	C+	76
3.3	B+	88	2.1	C	75
3.2	B+	87	2.0	C	74

3.1	B	86	1.9	C	73
3.0	B	85	1.8	C-	71
2.9	B	84	1.7	C-	70

**Writing:** One component of your grades for the written assignments will be your ability to clearly convey your ideas and information to the reader. If you are having difficulties, the UW has a good resource to assist students improve their writing skills (<https://depts.washington.edu/owrc/> (<https://depts.washington.edu/owrc/>)). The Department of Environmental and Occupational Health Sciences also has a class on Technical writing in Environmental Health (ENVH 520).

Tips for your writing:

1. The writing required in the class is not creative writing, it is technical writing.
2. All figures, graphs, photos, and tables must be numbered and have a descriptive caption. These should also be referenced in the text.
3. If you have a graphic or table in a report, you'll need to say something about it in the text.
4. Writing must be your own, do not search out old class materials, examples are provided.
5. Do not copy and paste large amounts of text into your reports. Even if you cite it, if there's a lot of it, it's not your writing.

## Text Book

### Highly Recommended

Burgess, WA. Recognition of Health Hazards in Industry: A Review of Materials and Processes. 2nd edition, New York, John Wiley and Sons. 1995

**Attendance:** Your presence in class and at site visits is highly recommended as it may be difficult or impossible to make up missed classes. A majority of your grade is dependent upon your presence at the site visits. Your participation score will depend on your ability to engage in class discussions.

**End of Year Evaluations:** If I get >75% of the class submitting class evaluations, everyone will earn an extra 1 point. Even if you don't really want the point, please complete the evaluation. It's important that I get feedback, either good, bad, or indifferent. I like to use it to improve the class for next year.

**Class Participation:** You're highly encouraged to participate actively in class discussion, both in the classroom and in the field. Part your final grade will be based on participation. This presupposes coming to class, being prepared (having read assigned material), and being willing to exchange views with fellow students. Some kinds of "interactions" are especially helpful in class discussion, and these are highly valued. They include:

- Expressing your view and supporting it with evidence from the assigned reading or from another authoritative source.
- Asking a thoughtful question about something in the reading that was unclear to you.
- Responding to another student's comment by asking a clarifying question, indicating that you listened attentively and want to dig deeper.
- Building on another student's comment in an iterative way.
- Effectively reflecting back and/or summarizing what is being said in the conversation and identifying points of consensus or disagreement.
- Taking things "one step further," that is, commenting on the broader significance of a point in the reading or the discussion, or drawing a link between such a point and an apparently unconnected issue, indicating that you're a systems thinker making connections.

**Academic Integrity** (<http://sph.washington.edu/students/academicintegrity/>  
(<http://sph.washington.edu/students/academicintegrity/>.)

Students at the University of Washington (UW) are expected to maintain the highest standards of academic conduct, professional honesty, and personal integrity. Assignments may be evaluated using **Vericite** (<https://vericite.com/>), which is a tool to help evaluate the integrity of written assignments.

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**. 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.

### **Inclusion and Classroom Climate**

The UW School of Public Health seeks to ensure all students are fully included in each course. We strive to create an environment that reflects community and mutual caring. We encourage students with concerns about classroom climate to talk to your instructor, your advisor, a member of the departmental or SPH Diversity Committee and/or the program director. [DCinfo@uw.edu \(mailto:DCinfo@uw.edu\)](mailto:DCinfo@uw.edu) is a resource for students with classroom climate concerns.

Diverse backgrounds, embodiments, and experiences are essential to the critical thinking endeavor at the heart of university education. Therefore, I expect you to follow the UW Student Conduct Code in your interactions with your colleagues and me in this course by respecting the many social and cultural differences among us, which may include, but are not limited to: age, cultural background, disability, ethnicity, family status, gender identity and presentation, citizenship and immigration status, national origin, race, religious and political beliefs, sex, sexual orientation, socioeconomic status, and veteran status. Please talk with me right away if you experience disrespect in this class, and I will work to address it in an

educational manner. UW students can also report incidents of bias or violations of UW policies for non-discrimination using the Bias Reporting Tool available at: <http://www.washington.edu/bias/> (<http://www.washington.edu/bias/>).

**Access and Accommodation** (<http://depts.washington.edu/uwdrs/faculty-resources/syllabus-statement/> (<http://depts.washington.edu/uwdrs/faculty-resources/syllabus-statement/>)):

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 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 [uwdrs@uw.edu](mailto:uwdrs@uw.edu) (<mailto:uwdrs@uw.edu>) or [disability.uw.edu](mailto:disability.uw.edu). 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.

## Course Summary:

Date	Details	due by 10:30am
Mon Oct 1, 2018	 <a href="#">Class 1 Reading</a> <a href="https://canvas.uw.edu/courses/1220663/assignments/4325623">https://canvas.uw.edu/courses/1220663/assignments/4325623</a>	due by 10:30am
	 <a href="#">How People Interact with Chemicals in the Workplace</a> <a href="https://canvas.uw.edu/courses/1220663/assignments/4325633">https://canvas.uw.edu/courses/1220663/assignments/4325633</a>	due by 10:30am
	 <a href="#">How to Properly Wear Ear Plugs</a> <a href="https://canvas.uw.edu/courses/1220663/assignments/4325634">https://canvas.uw.edu/courses/1220663/assignments/4325634</a>	due by 10:30am
Mon Oct 8, 2018	 <a href="#">Class 2 Reading</a> <a href="https://canvas.uw.edu/courses/1220663/assignments/4325624">https://canvas.uw.edu/courses/1220663/assignments/4325624</a>	due by 10:30am
	 <a href="#">Site Visit 1 - Foundry</a> <a href="https://canvas.uw.edu/courses/1220663/assignments/4325641">https://canvas.uw.edu/courses/1220663/assignments/4325641</a>	due by 10:30am
Mon Oct 15, 2018	 <a href="#">Class 3 Reading</a> <a href="https://canvas.uw.edu/courses/1220663/assignments/4325625">https://canvas.uw.edu/courses/1220663/assignments/4325625</a>	due by 10:30am
	 <a href="#">North Star Haz ID Exercise</a> <a href="https://canvas.uw.edu/courses/1220663/assignments/4325637">https://canvas.uw.edu/courses/1220663/assignments/4325637</a>	due by 10:30am

Date	Details	
Mon Oct 22, 2018	 <a href="https://canvas.uw.edu/courses/1220663/assignments/4325626">Class 4 Reading</a> <a href="https://canvas.uw.edu/courses/1220663/assignments/4325626">(https://canvas.uw.edu/courses/1220663/assignments/4325626)</a>	due by 10:30am
	 <a href="https://canvas.uw.edu/courses/1220663/assignments/4325631">Commercial Building Construction Review</a> <a href="https://canvas.uw.edu/courses/1220663/assignments/4325631">(https://canvas.uw.edu/courses/1220663/assignments/4325631)</a>	due by 10:30am
	 <a href="https://canvas.uw.edu/courses/1220663/assignments/4325640">SawStop Video</a> <a href="https://canvas.uw.edu/courses/1220663/assignments/4325640">(https://canvas.uw.edu/courses/1220663/assignments/4325640)</a>	due by 10:30am
	 <a href="https://canvas.uw.edu/courses/1220663/assignments/4325642">Site Visit 2 - Commercial Building Construction site</a> <a href="https://canvas.uw.edu/courses/1220663/assignments/4325642">(https://canvas.uw.edu/courses/1220663/assignments/4325642)</a>	due by 10:30am
Mon Oct 29, 2018	 <a href="https://canvas.uw.edu/courses/1220663/assignments/4325627">Class 5 Reading</a> <a href="https://canvas.uw.edu/courses/1220663/assignments/4325627">(https://canvas.uw.edu/courses/1220663/assignments/4325627)</a>	due by 10:30am
	 <a href="https://canvas.uw.edu/courses/1220663/assignments/4325636">Pop Health Bldg Haz ID Exercise</a> <a href="https://canvas.uw.edu/courses/1220663/assignments/4325636">(https://canvas.uw.edu/courses/1220663/assignments/4325636)</a>	due by 10:30am
Mon Nov 5, 2018	 <a href="https://canvas.uw.edu/courses/1220663/assignments/4325628">Class 6 Reading</a> <a href="https://canvas.uw.edu/courses/1220663/assignments/4325628">(https://canvas.uw.edu/courses/1220663/assignments/4325628)</a>	due by 10:30am
	 <a href="https://canvas.uw.edu/courses/1220663/assignments/4325651">Motor Vehicle &amp; Heavy Equipment Mfg. Review</a> <a href="https://canvas.uw.edu/courses/1220663/assignments/4325651">(https://canvas.uw.edu/courses/1220663/assignments/4325651)</a>	due by 10:30am
	 <a href="https://canvas.uw.edu/courses/1220663/assignments/4325643">Site Visit 3 - Personnel lift mfg</a> <a href="https://canvas.uw.edu/courses/1220663/assignments/4325643">(https://canvas.uw.edu/courses/1220663/assignments/4325643)</a>	due by 10:30am
Mon Nov 12, 2018	 <a href="https://canvas.uw.edu/courses/1220663/assignments/4325649">Genie Haz ID Exercise</a> <a href="https://canvas.uw.edu/courses/1220663/assignments/4325649">(https://canvas.uw.edu/courses/1220663/assignments/4325649)</a>	due by 11:59pm
Mon Nov 19, 2018	 <a href="https://canvas.uw.edu/courses/1220663/assignments/4325635">Lead-Acid Battery Mfg. Review</a> <a href="https://canvas.uw.edu/courses/1220663/assignments/4325635">(https://canvas.uw.edu/courses/1220663/assignments/4325635)</a>	due by 10:30am
	 <a href="https://canvas.uw.edu/courses/1220663/assignments/4325644">Site Visit 4 - Lead-Acid Battery Mfg.</a> <a href="https://canvas.uw.edu/courses/1220663/assignments/4325644">(https://canvas.uw.edu/courses/1220663/assignments/4325644)</a>	due by 10:30am
Mon Nov 26, 2018	 <a href="https://canvas.uw.edu/courses/1220663/assignments/4434078">Class 9 Reading</a> <a href="https://canvas.uw.edu/courses/1220663/assignments/4434078">(https://canvas.uw.edu/courses/1220663/assignments/4434078)</a>	due by 10:30am
Mon Dec 3, 2018	 <a href="https://canvas.uw.edu/courses/1220663/assignments/4325630">Class 10 Reading</a> <a href="https://canvas.uw.edu/courses/1220663/assignments/4325630">(https://canvas.uw.edu/courses/1220663/assignments/4325630)</a>	due by 10:30am
	 <a href="https://canvas.uw.edu/courses/1220663/assignments/4325645">Site Visit 5 - Steel Mill</a> <a href="https://canvas.uw.edu/courses/1220663/assignments/4325645">(https://canvas.uw.edu/courses/1220663/assignments/4325645)</a>	due by 10:30am
	 <a href="https://canvas.uw.edu/courses/1220663/assignments/4325648">Steel Mill Review</a> <a href="https://canvas.uw.edu/courses/1220663/assignments/4325648">(https://canvas.uw.edu/courses/1220663/assignments/4325648)</a>	due by 10:30am
	 <a href="https://canvas.uw.edu/courses/1220663/assignments/4325646">Site Visit (Dyno) Report</a> <a href="https://canvas.uw.edu/courses/1220663/assignments/4325646">(https://canvas.uw.edu/courses/1220663/assignments/4325646)</a>	due by 11:59pm

Date	Details
Mon Dec 10, 2018	 <b>Class 11 Reading</b> ( <a href="https://canvas.uw.edu/courses/1220663/assignments/4325629">https://canvas.uw.edu/courses/1220663/assignments/4325629</a> ) due by 10:30am
	 <b>Nucor Hazard ID Exercise</b> ( <a href="https://canvas.uw.edu/courses/1220663/assignments/4325638">https://canvas.uw.edu/courses/1220663/assignments/4325638</a> ) due by 10:30am
	 <b>The Importance of Using a Fit Tested Respirator</b> ( <a href="https://canvas.uw.edu/courses/1220663/assignments/4325650">https://canvas.uw.edu/courses/1220663/assignments/4325650</a> ) due by 10:30am
	 <b>Participation</b> ( <a href="https://canvas.uw.edu/courses/1220663/assignments/4325639">https://canvas.uw.edu/courses/1220663/assignments/4325639</a> )
	 <b>Quiz #1</b> ( <a href="https://canvas.uw.edu/courses/1220663/assignments/4335975">https://canvas.uw.edu/courses/1220663/assignments/4335975</a> )
	 <b>Quiz #2</b> ( <a href="https://canvas.uw.edu/courses/1220663/assignments/4438027">https://canvas.uw.edu/courses/1220663/assignments/4438027</a> )
	 <b>Quiz #3</b> ( <a href="https://canvas.uw.edu/courses/1220663/assignments/4338506">https://canvas.uw.edu/courses/1220663/assignments/4338506</a> )