

Course Syllabus

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ENVH 564
RECOGNITION OF HEALTH AND SAFETY HAZARDS IN INDUSTRY
Autumn Quarter, 2022
2 Credits

Instructors: Marty Cohen, ScD, CIH, CSP, (He, Him) mcohen@uw.edu,
(<mailto:mcohen@uw.edu>)_616-1905
Elena Austin, ScD, (She, Her) elaustin@uw.edu,
(<mailto:elaustin@uw.edu>)_221-6301

Time: Mondays 1:30 AM – 3:20 PM
Place: Health Sciences RR 134 (HSRR RR134)
URL: <https://canvas.uw.edu/courses/1580202>

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.
6. Identify and communicate how workplace dignity and equity can benefit or harm the health and safety of workers.

NOTE Regarding Field Trips: We will be conducting live trips to work sites. Students will be taken to the sites via UW fleet services vehicles driven by faculty or staff. Students can also drive themselves if it

has been preapproved by the instructors. Some site visits may take longer than the allotted time, so arrangements should be made with faculty to leave the site early or arrive late to your other commitments.

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. (Not applicable unless going 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 2nd and 5th 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 3rd and 4th site visits, the same information should be investigated, but a written report is not required. Your knowledge of the industry may be tested during the visit. For an example, see Files>Report Outlines & Examples>ExampleReview in Canvas. A grading rubric is also available in that folder and is called, GRADING_RUBRIC_Industry-Review-Outline-2022.docx.
 - **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>Example_ReportSchnitzer.pdf in Canvas. A grading rubric is also located in that folder and is called GRADING_RUBRIC_WalkthroughReportOutline_2022.docx.
 - **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. A grading rubric is also available in that folder and is called, GRADING_RUBRIC_HazIDExQuestions_2022.docx.
 - **There will be no final exam, but we will meet on the day of the final for one last, non-mandatory class. If possible, we will change the time from 6:30 – 8:20 PM..**

Grading: Industry reviews (25%), Hazard identification exercises (25%), and Walk-through report (50%).

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 also has a list of writing resources on its Portal (<https://portal.deohs.washington.edu/index.php/academic-support-writing-resources> (<https://portal.deohs.washington.edu/index.php/academic-support-writing-resources>)).

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: A majority of your grade is dependent upon your presence during the site visits. Your participation score will depend on your ability to engage in class discussions and interactions with the

site hosts.

“If you are sick with any illness, you *must* stay home, even if you are fully vaccinated”

(<https://www.washington.edu/coronavirus/> (<https://www.washington.edu/coronavirus/>)) for COVID-19.

The class lectures will be recorded and posted to the Canvas site. If you miss a site visit due to illness, I will give you access to 360° videos of a visit to that site from a previous year to guide your assignments. This will not be nearly as informative for you, but will give you a sense of the company and its issues. To use the 360° videos, you'll need to have a gmail account or have your UW email associated with a google account. **It will be the student's responsibility to contact Marty Cohen to get access to these videos.**

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 of your final grade will be based on participation. This presupposes being present during the lectures, 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.

Safety: Call SafeCampus at 206-685-7233 anytime – no matter where you work or study – to anonymously discuss safety and well-being concerns for yourself or others. SafeCampus's team of caring professionals will provide individualized support, while discussing short- and long-term solutions and connecting you with additional resources when requested.

Because this is a field-based class, we will be visiting a number of workplaces with potential hazards. Following the instructors' and host's directions is critical for your safety. Unsafe activities in the field will not be tolerated

Statement on Classroom Climate (<https://www.washington.edu/teaching/topics/engaging-students-in-learning/responding-to-disruptions-in-the-classroom/>): We are co-creators of our learning environment. It

is our collective responsibility to develop a supportive learning environment for everyone. Listening with respect and an open mind, striving to understand others' views, and articulating your own point of view will help foster the creation of this environment. We engage our differences with the intent to build community, not to put down the other and distance our self from the other. Being mindful to not monopolize discussion and/or interrupt others will also help foster a dialogic environment.

The following guidelines can add to the richness of our discussion:

- We assume that persons are always doing the best that they can, including the persons in this learning environment.
- We acknowledge that systematic oppression exists based on privileged positions and specific to race, gender, class, religion, sexual orientation, and other social variables and identities.
- We posit that assigning blame to persons in socially marginal positions is counter-productive to our practice. We can learn much about the dominant culture by looking at how it constructs the lives of those on its social margins.
- While we may question or take issue with another class member's ideology, we will not demean, devalue, or attempt to humiliate another person based on her/his experiences, value system, or construction of meaning.
- We have a professional obligation to actively challenge myths and stereotypes about our own groups and other groups so we can break down the walls that prohibit group cooperation and growth. [Adapted from Lynn Weber Cannon (1990). Fostering positive race, class and gender dynamics in the classroom. *Women Studies Quarterly*, 1 & 2, 126-134.]

We are a learning community. As such, we are expected to engage with difference. Part of functioning as a learning community is to engage in dialogue in respectful ways that supports learning for all of us and that holds us accountable to each other. Our learning community asks us to trust and take risks in being vulnerable.

Here are some guidelines that we try to use in our learning process:

- LISTEN WELL and be present to each member of our group and class.
- Assume that I might miss things others see and see things others miss.
- Raise my views in such a way that I encourage others to raise theirs.
- Inquire into others' views while inviting them to inquire into mine.
- Extend the same listening to others I would wish them to extend to me.
- Surface my feelings in such a way that I make it easier for others to surface theirs.
- Regard my views as a perspective onto the world, not the world itself.
- Beware of either-or thinking.
- Beware of my assumptions of others and their motivations.
- Test my assumptions about how and why people say or do things.
- Be authentic in my engagement with all members of our class.

COVID-RELATED EXPECTATIONS (updated for Autumn 2022)

All UW students are expected to follow state, local, and UW COVID-19 policies and recommendations.

Please be extra conscientious about masking during the first few weeks of the quarter, because we will have a lot of members of the community traveling and can reasonably expect to see a surge in COVID cases.

If you feel ill or exhibit possible COVID symptoms, you should not come to class. If you need to temporarily quarantine or isolate per CDC guidance and campus policy, you are responsible for notifying your instructors as soon as possible by email. If you receive a positive COVID-19 test result, you must report to campus Environmental Health & Safety (EH&S) by emailing covidehc@uw.edu or calling 206-616-3344.

Please check your email daily BEFORE coming to class. If we need to conduct class remotely because the instructor or a guest speaker is complying with UW policies and unable to attend in person, we will send all registered students an email with a Zoom link for remote instruction. Please also keep an eye out for email communications from the University or the School of Public Health that will inform you of any future changes to policies or guidelines.

ACCESS AND ACCOMMODATIONS:

Your experience in this class is important to me. It is the policy and practice of the University of Washington to create inclusive and accessible learning environments consistent with federal and state law. If you have already established accommodations with Disability Resources for Students (DRS), please activate your accommodations via myDRS so we can discuss how they will be implemented 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), contact DRS directly to set up an Access Plan. DRS facilitates the interactive process that establishes reasonable accommodations. Contact DRS at [disability.uw.edu \(http://depts.washington.edu/uwdrs/\)](http://depts.washington.edu/uwdrs/).

RELIGIOUS ACCOMMODATIONS:

Washington state law requires that UW develop a policy for accommodation of student absences or significant hardship due to reasons of faith or conscience, or for organized religious activities. The UW's policy, including more information about how to request an accommodation, is available at [Religious Accommodations Policy \(https://registrar.washington.edu/staffandfaculty/religious-accommodations-policy/\)](https://registrar.washington.edu/staffandfaculty/religious-accommodations-policy/). Accommodations must be requested within the first two weeks of this course using the [Religious Accommodations Request form \(https://registrar.washington.edu/students/religious-accommodations-request/\)](https://registrar.washington.edu/students/religious-accommodations-request/).

ACADEMIC INTEGRITY

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](https://www.washington.edu/studentconduct/) (<https://www.washington.edu/studentconduct/>).(WAC 478-120). We expect you to know and follow the university's policies on cheating and plagiarism, and [the SPH Academic Integrity Policy](https://sph.washington.edu/students/academic-integrity-policy/) (<https://sph.washington.edu/students/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.

STATEMENT ON DIVERSITY AND INCLUSION:

Diverse backgrounds, embodiments and experiences are essential to the critical thinking endeavor at the heart of University education. In SPH, we are expected:

1. To respect individual differences, which may include, but are not limited to, age, cultural background, disability, ethnicity, family status, gender identity and expression, citizenship and immigration status, national origin, race, religion, sex, sexual orientation, socioeconomic status and veteran status.
2. To engage respectfully in the discussion of diverse worldviews and ideologies embedded in course readings, presentations and artifacts, including those course materials that are at odds with personal beliefs and values.

On our first day of class we will create ground rules together to follow in promoting a productive learning environment for all members of the class. We are committed to making this class an equitable learning environment. Please talk with us right away if you experience disrespect in this class from other students and/or from us, and we will work to address it in an educational manner.

Reporting Learning Environment Concerns: The Office of the Dean has a [student concern policy](https://sph.washington.edu/students/student-concern-policy/) (<https://sph.washington.edu/students/student-concern-policy/>), a faculty concern policy and standard HR procedures for staff concerns. Students are encouraged to report any incidents of bias in any of the following ways:

- Report the incident to someone they feel comfortable with (including teaching staff, adviser or department staff) or directly inform the SPH Assistant Dean for Equity, Diversity & Inclusion Dr. Victoria Gardner at vg@uw.edu.
- email dcinfo@uw.edu (<mailto:dcinfo@uw.edu>) to file a non-anonymous, confidential report (tracked by Director of Student and Academic Services and Assistant Dean of Equity, Diversity & Inclusion) or
- Send an anonymous and confidential report using the bias concern form [here](https://catalyst.uw.edu/webq/survey/vg/375764/) (<https://catalyst.uw.edu/webq/survey/vg/375764/>). Report is received by the Assistant Dean for EDI and the Director of Program Operations for Student and Academic Services and tracked for investigation and/or resolution. Reporter can remain completely anonymous but will not receive a response.

ACCREDITATION REQUIREMENTS AND COMPETENCIES MET BY THIS COURSE

Council on Education for Public Health (CEPH) competencies met by this course:

- Recognize, evaluate, and treat human exposures to physical, chemical, or biological hazards at work or in the general environment (MPH-OEM department-level competency)






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





We share our pronouns because we strive to cultivate an inclusive environment where people of all genders feel safe and respected. We cannot assume we know someone's gender just by looking at them. So we invite everyone to share their pronouns.










LAND ACKNOWLEDGMENT:












The University of Washington acknowledges the Coast Salish people of this land, the land which touches the shared waters of all tribes and bands within the Duwamish, Suquamish, Tulalip and Muckleshoot nations.











Course Summary:










Date	Details	Due
Mon Oct 3, 2022	 Class 1 Reading https://canvas.uw.edu/courses/1580202/assignments/7469682	due by 1:30pm
	 How People Interact with Chemicals in the Workplace https://canvas.uw.edu/courses/1580202/assignments/7469693	due by 1:30pm
	 How to Properly Wear Ear Plugs https://canvas.uw.edu/courses/1580202/assignments/7469694	due by 1:30pm
Mon Oct 10, 2022	 Class 2 Readings https://canvas.uw.edu/courses/1580202/assignments/7469683	due by 1:30pm
	 Site Visit 1 - Lead-acid battery mfg. https://canvas.uw.edu/courses/1580202/assignments/7469704	due by 1:30pm

Date	Details	Due
Mon Oct 17, 2022	 ENV H 564 A Au 21: Recognition Of Health And Safety Problems In Industry. (https://canvas.uw.edu/calendar?event_id=2798644&include_contexts=course_1580202)	11:30am to 1:30pm
	 Class 3 Reading (https://canvas.uw.edu/courses/1580202/assignments/7469684)	due by 1:30pm
	 Dyno Haz ID Exercise (https://canvas.uw.edu/courses/1580202/assignments/7580964)	due by 1:30pm
Mon Oct 24, 2022	 ENV H 564 A Au 21: Recognition Of Health And Safety Problems In Industry. (https://canvas.uw.edu/calendar?event_id=2798636&include_contexts=course_1580202)	11:30am to 1:30pm
	 Lecture of OHS Programs and Standards (https://canvas.uw.edu/courses/1580202/assignments/7469699)	due by 11:30am
	 Class 4 Reading (https://canvas.uw.edu/courses/1580202/assignments/7469685)	due by 1:30pm
	 Commercial Building Construction Review (https://canvas.uw.edu/courses/1580202/assignments/7469690)	due by 1:30pm
	 Site Visit 2 - Commercial Building Construction site (https://canvas.uw.edu/courses/1580202/assignments/7469705)	due by 1:30pm

Date	Details	Due
Mon Oct 31, 2022	 ENV H 564 A Au 21: Recognition Of Health And Safety Problems In Industry (https://canvas.uw.edu/calendar?event_id=2798637&include_contexts=course_1580202)	11:30am to 1:30pm
	 Class 5 Reading (https://canvas.uw.edu/courses/1580202/assignments/7469686)	due by 1:30pm
Mon Nov 7, 2022	 Construction Site Haz ID Exercise (https://canvas.uw.edu/courses/1580202/assignments/7469691)	due by 1:30pm
	 ENV H 564 A Au 21: Recognition Of Health And Safety Problems In Industry (https://canvas.uw.edu/calendar?event_id=2798642&include_contexts=course_1580202)	11:30am to 1:30pm
	 Lecture of Control Strategies (https://canvas.uw.edu/courses/1580202/assignments/7469696)	due by 11:30am
	 Cabinet Making (Woodworking) Review (https://canvas.uw.edu/courses/1580202/assignments/7469678)	due by 1:30pm
 Class 6 Reading (https://canvas.uw.edu/courses/1580202/assignments/7469687)	due by 1:30pm	
 SawStop Video (https://canvas.uw.edu/courses/1580202/assignments/7469703)	due by 1:30pm	
 Site Visit 3 - Cabinet making (https://canvas.uw.edu/courses/1580202/assignments/7469706)	due by 1:30pm	

Date	Details	Due
Mon Nov 14, 2022	 ENV H 564 A Au 20: Recognition Of Health And Safety Problems In Industry. https://canvas.uw.edu/calendar?event_id=2798638&include_contexts=course_1580202	11:30am to 1:30pm
	 Canyon Creek Haz ID Exercise https://canvas.uw.edu/courses/1580202/assignments/7469679	due by 1:30pm
	 Class 7 Reading https://canvas.uw.edu/courses/1580202/assignments/7469688	due by 1:30pm
Mon Nov 21, 2022	 The Importance of Using a Fit Tested Respirator https://canvas.uw.edu/courses/1580202/assignments/7469712	due by 1:30pm
	 ENV H 564 A Au 21: Recognition Of Health And Safety Problems In Industry. https://canvas.uw.edu/calendar?event_id=2798643&include_contexts=course_1580202	11:30am to 1:30pm
	 Lecture of Personal Protective Equipment https://canvas.uw.edu/courses/1580202/assignments/7469700	due by 11:30am
Mon Nov 28, 2022	 Class 8 Reading https://canvas.uw.edu/courses/1580202/assignments/7469689	due by 1:30pm
	 Site Visit 4 - Foundry. https://canvas.uw.edu/courses/1580202/assignments/7469707	due by 1:30pm
	 ENV H 564 A Au 20: Recognition Of Health And Safety Problems In Industry. https://canvas.uw.edu/calendar?event_id=2798639&include_contexts=course_1580202	11:30am to 1:30pm
 Triangle Shirtwaist Fire Video https://canvas.uw.edu/courses/1580202/assignments/7469713	due by 1:30pm	
 Workplace equity https://canvas.uw.edu/courses/1580202/assignments/7469714	due by 1:30pm	

Date	Details	Due
Mon Dec 5, 2022	 ENV H 564 A Au 20: Recognition Of Health And Safety Problems In Industry (https://canvas.uw.edu/calendar?event_id=2798640&include_contexts=course_1580202)	11:30am to 1:30pm
	 Class 10 Reading (https://canvas.uw.edu/courses/1580202/assignments/7469680)	due by 1:30pm
	 Review of COVID Return to work plan elements and system (https://canvas.uw.edu/courses/1580202/assignments/7469702)	due by 1:30pm
	 Site Visit 5 - Nucor (https://canvas.uw.edu/courses/1580202/assignments/7469708)	due by 1:30pm
Mon Dec 12, 2022	 Steel Mill (specifically mini-mills) Review (https://canvas.uw.edu/courses/1580202/assignments/7581165)	due by 1:30pm
	 ENV H 564 A Au 20: Recognition Of Health And Safety Problems In Industry (https://canvas.uw.edu/calendar?event_id=2798641&include_contexts=course_1580202)	11:30am to 1:30pm
	 Site Visit (North Star) Report (https://canvas.uw.edu/courses/1580202/assignments/7469709)	due by 12pm
Mon Dec 19, 2022	 Class 11 Readings (https://canvas.uw.edu/courses/1580202/assignments/7469681)	due by 1:30pm
	 Nucor Haz ID Exercise (https://canvas.uw.edu/courses/1580202/assignments/7580969)	due by 1:30pm
Mon Dec 19, 2022	 Lecture of Hazard Communication (https://canvas.uw.edu/courses/1580202/assignments/7469697)	due by 6:30pm

Date	Details	Due
	 Foundry Industry Review (https://canvas.uw.edu/courses/1580202/assignments/7469695)	
	 Lecture of Intro and Battery Mfg (https://canvas.uw.edu/courses/1580202/assignments/7469698)	
	 North Star Haz ID Exercise (https://canvas.uw.edu/courses/1580202/assignments/7469692)	
	 Participation (https://canvas.uw.edu/courses/1580202/assignments/7469701)	
	 Quiz #1 (https://canvas.uw.edu/courses/1580202/assignments/7469676)	
	 Quiz #2 (https://canvas.uw.edu/courses/1580202/assignments/7469677)	
	 Quiz #3 (https://canvas.uw.edu/courses/1580202/assignments/7469675)	
	 Site Visit Questions Form (https://canvas.uw.edu/courses/1580202/assignments/7469710)	
	 Space Needle Haz ID Exercise (https://canvas.uw.edu/courses/1580202/assignments/7469711)	