

Course Syllabus

[Jump to Today](#)

 [Edit](#)

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[SPH-Syllabus-Template-597 1.9.23.docx \(https://canvas.uw.edu/courses/1612766/files/100596165?wrap=1\)](https://canvas.uw.edu/courses/1612766/files/100596165?wrap=1)

ENV H 597 Case Studies in Occupational and Environmental Medicine

Winter 2023

Contact information

Instructor: Debra Cherry, MD; She/her, Associate Professor, Division of General Internal Medicine; Adjunct Associate Professor, DEOHS

Contact: cherryd@uw.edu

Office hours: Mon and Wed, 1-5

Teaching Assistants

None

Course times and locations

Lecture: Thur, 4-5 pm

Sections: Zoom <https://washington.zoom.us/j/96525550042>  (<https://washington.zoom.us/j/96525550042>)

Course Description

During this course, we will primarily discuss clinical cases encountered at the Occupational & Environmental (OEM) Clinic at Harborview Medical Center and other OEM clinics in the community. This course focuses on the evaluation and management of occupational and environmental injuries and illnesses; tertiary prevention of chronic disability; assessing fitness for duty; recognition of sentinel events; and the physician's role in protecting public health, including recognition of adverse events. The format is interactive with students and faculty. Emphasis is placed on evidence-based clinical decision-making through critical clinical reasoning and analysis of the scientific literature, as well as patient-centered care. Students taking this course who do not currently see patients with conditions related to occupational or environmental exposures may present cases from a pool compiled by the instructor.

Course Learning Objectives

After completing this course, students will be able to:

1. Synthesize clinical and relevant exposure/hazard information and develop a differential diagnosis that includes both occupational/environmental and non-occupational/environmental conditions.

2. Apply a systematic and evidence-based approach to evaluating potentially occupationally- and environmentally-related injuries and illnesses.
3. Apply an evidence-based approach to managing occupational and environmental injuries and diseases.
4. Assess work-relatedness for potentially work-related injuries and illnesses.
5. Recommend appropriate occupational (and non-occupational) accommodations and restrictions for occupationally-related injuries and diseases.
6. Assess fitness for duty, including special populations such as military personnel, commercial drivers, and workers in safety sensitive positions.
7. Evaluate and manage patients, workers, and affected community members within the relevant occupational and environmental legal and regulatory frameworks.

Council for Education of Public Health (CEPH) Competencies

Apply evidence based approach to managing occupational and environmental injuries and diseases other accrediting agency competencies

These topics pertain to the following ACGME competencies

(<https://www.acgme.org/globalassets/pdfs/milestones/occupationalandenvironmentalmedicinesupplementalguide.pdf>):


Patient Care 2: Clinical Assessment and Management; Overall Intent: To develop the ability to develop a wide differential diagnosis and a focused working diagnosis that can be adjusted in the presence of new information; to master the knowledge and skills required to diagnose, treat, and manage patients in the clinical occupational medicine setting

Patient Care 4: Fitness for Work (Workers' Compensation, Employment and Certification Exams, Fitness for Duty, Return to Work) Overall Intent: To assess a worker's fitness for duty based on their individual job duties, personal medical history, medication use, and physical exam in a variety of contexts including safety sensitive positions

Medical Knowledge 3: Regulatory; Overall Intent: To understand and apply knowledge of regulatory agencies and standards and exposure monitoring requirements to a variety of industry, workplace, and occupational practice settings (FMSCA, OSHA)

Practice-Based Learning and Improvement 1: Evidence-Based and Informed Practice; Overall Intent: To incorporate evidence into clinical practice (ie, ODG and ACOEM guidelines)

Interpersonal and Communication Skills 2: Interprofessional and Team Communication; Overall Intent: To effectively communicate with the health care team, including consultants, in both straightforward and complex situations

Over the course of 1-2 years, occupational illnesses and injuries corresponding to the following ABPM board exam topics (<https://www.theabpm.org/become-certified/exam-content/occupational-medicine-content-outline>  (<https://www.theabpm.org/become-certified/exam-content/occupational-medicine-content-outline>)) will be covered.

Underlined topics are of particular interest for winter quarter.

1. Clinical Patient Care:
2. General Patient Evaluation and Testing, Exposure and occupational history, Causation and work-relatedness, Contributing factors
3. Eyes: Screening, Injury
4. Ear, Nose and Throat: Noise and solvent induced hearing loss, Acute acoustic trauma, Assessment: a. Audiometry, Barotrauma

5. Pulmonary: Occupational disease a. Pneumoconiosis, Asthma, Allergic and immunologic disease, Inhalation disorders, Cancer, Pulmonary function testing, Respirator certification, Prevention
6. Heart and Vascular System: Effects of physical and chemical agents, Physically and psychologically stressful duties, Fitness for duty

F. Hepatic and Gastrointestinal: Liver and biliary tract disorders, Cancer, Liver function testing

G. Genitourinary: Renal disorders, Renal and bladder cancer

H. Hematology/Oncology: Hematologic disorders, Hematologic cancers, Clinical and laboratory studies a. Medical surveillance, b. Post-exposure

I. Infectious Diseases and Biohazards: Blood borne pathogens, Tuberculosis, Diseases of travelers and workers, Zoonotic diseases, Building-related illnesses, Biologic warfare

J. Musculoskeletal: Spine disorders and back pain a. Diagnosis and management, b. Treatment and Prevention; Upper extremity disorders a. Entrapment neuropathies, b. Overuse syndromes, Joint and extremity injuries and disorders;

K. Neurologic Disorders: Neurological and mental status exams, Neurotoxic exposures, Central nervous system disorders, Peripheral neuropathy; Interpretation of neurologic testing; Sleep disorders

L. Mental Disorders: Effects on work capacity; Identify, manage and refer impaired employee; Work place stress

M. Reproductive Disorders: Common reproductive toxins and their effects; Risk and exposure; Protection of fertility

N. Dermatology; Allergic and irritant dermatitis; Urticaria; Infections; Neoplasia; Pigmentation disorders; Work-aggravated dermatoses

O. Clinical Toxicology; Evaluate and treat exposure to toxins

P. Pain Management: Acute and chronic management

Required Textbooks & Readings

None

Recommended, optional, or supplementary readings

Books · LaDou J, et al (2021). CURRENT Occupational and Environmental Medicine, 7th Edition. New York. Philadelphia: Wolters Kluwer/Lippincott Williams & Wilkins. Available online. · Melhorn JM, et al (2013). AMA Guides to the Evaluation of Disease and Injury Causation, 2nd Edition. AMA. (At HMC, and also available in print at the UW Library); Goldfrank's Toxicologic Emergencies, 11e (2019). Available online.

Websites: Uptodate, NIOSH Health Hazard Evaluations, Board Vitals : Username: oemp@uw.edu, Password: 401Broadway . Use the 'search' tool to find your topic.

<https://www.datachemsoftware.com/categories/occupational-medicine> 

<https://www.datachemsoftware.com/categories/occupational-medicine>; speak with instructor re credentials for log in

Grading

Grades will be determined by presenting a case (75% of grade), weekly quiz (15% of grade), and participation (10% of grade).

Grading Criteria

Specific elements of the main case to be assessed include the following:

Advance review of case with instructor.

Clarity, organization, synthesis of information, and reasoning in oral presentation.

For clinical cases: review of injury mechanism/exposures/controls, occupational history, physical examination, clinical diagnostic data & (if relevant) exposure/hazard data, differential diagnosis, management, work-relatedness and work restrictions (if relevant), primary prevention considerations.

For public health cases: review of situation, background and risk identification, intervention evaluations, recommendations for implementation, and outcomes.

Discussion of teaching points summary, useful references and case-related quiz questions.

Assignment of numeric grades will use UW Department of Health Services grading guidelines. Brief descriptions of each grade level are provided below:

3.9-4.0 Excellent and exceptional work ...for a graduate student

3.7-3.8 Strong work

3.4-3.6 Competent and sound work

3.2-3.3 Adequate work, although some weaknesses are evident

2.9-3.1 Borderline work

2.7-2.8 Deficient but acceptable work

<2.7 Unacceptable work

Make-up assignment policy

If you miss class, please view the recording and submit approximately ½ page paper summarizing what you learned from the case. The paper is due one week following the missed class, unless there are alternative arrangements with the instructor.

Student responsibilities

Course Format

Overview: An occupational or environmental injury or disease case will be presented and discussed at each session. This will be the “main case presentation”. The presenting student, participating students, supervising attending physician for the clinical case, and other faculty will help to reinforce pertinent teaching points. Each session will also include discussion of other current clinical, population or public health cases that contribute to achieving the learning objectives.

First day of class: Log onto Google sign-up sheet at

<https://docs.google.com/spreadsheets/d/10WndPGHtWfIJ9aIYpHoku41mwFmUe9UzpVgL-9pvDOU/edit?usp=sharing>

Links to an external site.and pick a day to present the main case.

Meet with Dr. Cherry at least one week in advance (see sign-up sheet for suggested dates and times) to plan your main case presentation.

In-Class Session Format (50 minutes):

Student presents and guides discussion of the main case (~25 min) **THE MAIN CASE ALWAYS GOES OVER THE ALLOTTED TIME. PLEASE HAVE NO MORE THAN 7 SLIDES FOR THE CASE AND ONE SLIDE FOR TEACHING POINTS.**

Student reviews main teaching points using PowerPoint presentation teaching points slide (~5 min). Submit and review answers to post-session case-related quiz questions (~10 min). Discuss other current clinical, population or public health cases (~ 10 min)

Course Session Schedule

To be completed after sign-ups on the first day of class

Students: Balaji, Chris, Melissa, Britt (PFAS), Jessi, Amelia, Lindsey (?)

Date	Topic	Presenter	Reading
1/12	Intro & Short Case	Dr. Cherry, Mechanic with a Rash	See module
1/19			
1/26	Mental health issues in workers such as butchers and executioners	Balaji	
2/2		Melissa, TBD	
2/9		Amelia, TBD	
2/16	Heat-health farmworkers	Jessi,	
2/23		Chris, TBD	
3/2	PFAS exposure	Britt,	
3/9	Thesis Updates	Thesis & Capstone Project Updates	

Course requirements

Main Case Presentation: At the start of the quarter, each student will sign up for **one session** at which to orally present a clinical, population health or public health case. If any sessions remain open after student sign-ups, the instructor will add a faculty selected topic.

One week prior to the assigned session, the student will meet with the instructor on Zoom (same link as class) to select one case to present.

Three days (i.e. Monday) prior to the assigned class session, the student will email the instructor the following case materials for review:

A one sentence description of the case.

A draft PowerPoint presentation to guide the case discussion and highlight information pertinent to the case e.g. images, results etc. This PowerPoint presentation should include:

A recommended total of 5-7 slides.

A Teaching Point slide with 1-2 main teaching points.

Ideally, include a statement linking your case to occupational or preventive medicine specifically (see ACGME, ABPM, and ACOEM competencies in OEM).

A References slide with at least one resource supporting content in the case presentation and questions.

Two case-related questions with answers (e.g. covering epidemiology, exposure-disease relationship, diagnosis, or management aspects of the case) to re-enforce teaching points. One of the questions should be in the style of the American Board of Preventive Medicine (ABPM) board examination, such as board vitals or datachem. The questions can be submitted as a Word document, Google document, or PDF.

Sample question: Which of the following is the most common cause of occupational allergic contact dermatitis?

1. A) Rubber accelerators
2. B) Hydrochloric acid
3. C) Mercury
4. D) Degreasers

By the 1:30pm on assigned session day, the student will email the instructor the final Powerpoint presentation, and a Word document with the two questions with answers.

Clinical Case presentations should include sections that reinforce the main teaching point, such as the chief complaint, history of the present illness (including injury mechanism (if relevant) and exposures/controls); pertinent past medical history, family history, social history, and medications; occupational history; physical examination, clinical diagnostic data & (if relevant) exposure/hazard data, differential diagnosis, management, work-relatedness and work restrictions (if relevant), and primary prevention considerations.

Population Health/Public Health Case presentations should include the following: a concise statement or summary of the problem or issue (situation); pertinent information about the situation that helps to further educate your peers about the cause of the problem or issue (background and risk identification); overview and analysis of potential solutions to the problem or issue (intervention evaluation); recommendations about how the problem or issue can be

addressed (recommendations for implementation); and pertinent outcome measures to highlight the impact of recommendations that may have been implemented.

PowerPoint Presentation Communication Skills

Communication through writing and speaking is an important transferable skill for all career pathways. Establishing a strong foundation in communication skills will help you be successful throughout your future course work and career. Therefore, this course includes assignments with the goal to help you identify areas of strength and improvement in your communication. If you feel that you could benefit from additional opportunities to improve your writing skills in particular, a list of resources at the UW and others accessible online can be found on the SPH website at <https://sph.washington.edu/sites/default/files/inline-files/Writing-Resources-4.3.19.pdf> [↗](https://sph.washington.edu/sites/default/files/inline-files/Writing-Resources-4.3.19.pdf).

Important Policies & Resources

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 \(WAC 478-121\)](https://apps.leg.wa.gov/WAC/default.aspx?cite=478-121) [↗](https://apps.leg.wa.gov/WAC/default.aspx?cite=478-121). 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](https://www.washington.edu/cssc/) [↗](https://www.washington.edu/cssc/).

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 [↗](https://disability.uw.edu) [\(https://depts.washington.edu/uwdrs/\)](https://depts.washington.edu/uwdrs/).

COVID-related expectations

Per UW policy, this class will be offered in person or by Zoom. There is a long-standing tradition of offering the course by Zoom which started several years before the COVID pandemic and allows physicians practicing at diverse locations to join the discussion. Per UW policies, resources are available if you meet the criteria for an

accommodation from Disability Resources for Students (DRS) or a special arrangement approved by the SPH Office of the Dean that allows you to take the course remotely.

- Please [contact UW Disability Resources for Students \(DRS\)](https://depts.washington.edu/uwdrs/) directly if you feel you may be eligible for an accommodation based on your status as an immunocompromised individual or based on other diagnosed physical or mental health conditions that might prevent you from being able to take classes in-person.
- If you are a student enrolled in a program in SPH, and you are either living with an individual who is immunocompromised, OR you are unable to obtain a visa to travel to the US, you may be eligible for a “special arrangement” that will allow you to take this course remotely. To further clarify, immunocompromised refers to individuals with no/critically weakened immune response to the vaccines. Immune compromised is not the same as underlying health concerns which may lead to a more severe response to COVID. Requests for special arrangements to take the class remotely should have been submitted to and approved by the Students and Academic Services team in the Office of the Dean before the beginning of the quarter.

All UW students are expected to complete their [vaccine attestation](#)

[before arriving on campus. Per President Cauce’s message March 8,](https://www.washington.edu/coronavirus/vaccination-requirement/)

[following changes to state and local health policies, masks will become optional inside most University facilities starting March 28, the first day of spring quarter. Masks will continue to be required in clinical and other health-care settings and on public transportation, including UW shuttles. We strongly recommend wearing masks indoors during the first two weeks of spring quarter. Please monitor yourself daily for symptoms and stay home if you are sick. It’s also strongly recommended to get tested after travel. Refer to the](https://www.washington.edu/coronavirus/2022/03/08/spring-quarter-classes-and-uw-mask-policies-message-to-uw-students/?utm_source=uwhp&utm_medium=tiles&utm_campaign=spring-quarter)

[UW Face Covering Policy](https://www.ehs.washington.edu/covid-19-prevention-and-response/face-covering-requirements?_ga=2.102791810.305611696.1646677337-2095419026.1632253748)

[for the latest guidance and follow the campus-wide face-covering policy at all times. You are expected to follow state, local, and UW COVID-19 policies and recommendations. 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/or](https://www.washington.edu/coronavirus/2022/03/08/spring-quarter-classes-and-uw-mask-policies-message-to-uw-students/?utm_source=uwhp&utm_medium=tiles&utm_campaign=spring-quarter) [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.

Land Acknowledgement

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.

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/>).

Inclusion & Diversity

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, 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.
3. To encourage students with concerns about classroom climate to talk to their instructor, adviser, a member of the departmental or SPH EDI Committee, the Assistant Dean for EDI, or the program's director.

Classroom Climate

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.

Pronouns

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.

Bias Concerns

The Office of the Dean has a [student concern policy](https://sph.washington.edu/students/student-concern-policy), a faculty concern policy and standard HR procedures for staff concerns. Our 2018 climate survey states that most people in SPH do not report bias incidents because they do not know where to go. Students are encouraged to report any incidents of bias to someone they feel comfortable with, including instructors, advisers or department staff. They can email dcinfo@uw.edu for immediate follow up. Bias concerns can be anonymously and confidentially reported via the online form found here: <https://sph.washington.edu/about/diversity/bias-concerns>. Data is collected by the Assistant Dean for EDI and the Director of Program Operations for Student and Academic Services and tracked for resolution and areas are identified for further training.

Sexual Harassment








Sexual harassment is a form of harassment based on the recipient's sex that is characterized by:

1. Unwelcome sexual advances, requests for sexual favors, or other verbal or physical conduct of a sexual nature by a person who has authority over the recipient when:
 - Submission to such conduct is an implicit or explicit condition of the individual's employment, academic status, or ability to use University facilities and services, or
 - Submission to or rejection of the conduct affects tangible aspects of the individual's employment, academic status, or use of University facilities.
2. Unwelcome and unsolicited language or conduct that creates an intimidating, hostile, or offensive working or learning environment, or has the purpose or effect of unreasonably interfering with an individual's academic or work performance.

If you believe that you are being harassed, or have observed harassment, you can report it to SPH using the [bias concerns link](https://sph.washington.edu/about/diversity/bias-concerns). The University also has designated offices to help you: [SafeCampus](https://www.washington.edu/safecampus/); [Office of the Ombud](#)

(<https://www.washington.edu/ombud/>); [Title IX Investigation Office](https://www.washington.edu/titleix/report/)  (<https://www.washington.edu/titleix/report/>); and [University Complaint Investigation and Resolution Office](https://www.washington.edu/compliance/uciro/)  (<https://www.washington.edu/compliance/uciro/>).

Course Summary:

Date	Details	Due
Thu Jan 12, 2023	 Background Reading (https://canvas.uw.edu/courses/1612766/assignments/8041835)	due by 11:59pm
	 Quiz 1, Jan 12, ACD (https://canvas.uw.edu/courses/1612766/assignments/8041844)	due by 11:59pm
Thu Jan 19, 2023	 Background Reading, PFAS (https://canvas.uw.edu/courses/1612766/assignments/8056804)	due by 11:59pm
Thu Jan 26, 2023	 Background reading: Mental Health of Executioners (https://canvas.uw.edu/courses/1612766/assignments/8070348)	due by 11:59pm
Thu Feb 2, 2023	 Background Reading: TB from M Bovis (https://canvas.uw.edu/courses/1612766/assignments/8082161)	due by 11:59pm
Thu Feb 9, 2023	 Background Reading: Pesticides slides from OEM Board rvw and Q&A from test bank DataChem (https://canvas.uw.edu/courses/1612766/assignments/8095400)	due by 11:59pm
	 Optional Reading: Chapter on Pesticides from LaDou textbook (https://canvas.uw.edu/courses/1612766/assignments/8095402)	due by 11:59pm