

Course Syllabus

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Quarter: Winter 2024

Credits & Grading: 4 credits, graded

Time & Location: Wednesdays, 1230 to 1:20 PM HSEB 245

Fridays 12:30 to 2:20 PM HSEB 125

Instructor:



Chris Simpson, Professor

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<mailto:tmb@uw.edu> **Office Hours:** By appointment


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.

WINTER QUARTER ILLNESS PROTOCOL

If you feel ill or exhibit respiratory or other symptoms, you should not come to class. Seek medical attention if necessary and notify your instructor(s) as soon as possible by email. [UW Environmental](#)

Health & Safety  (<https://www.ehs.washington.edu/covid-19-prevention-and-response/face-covering-policy>) recommends that you wear a well fitting mask while you are symptomatic

Additional recommendations include getting your **annual flu shot** (<https://wellbeing.uw.edu/flu-vaccination/>) and getting boosted with the updated COVID vaccines (available **at clinics and pharmacies, as well as through UW Medicine**  (<https://www.washington.edu/coronavirus/vaccines/>) and local health agencies).

Please check your email and CANVAS announcements daily BEFORE coming to class. If we need to conduct class remotely because the instructor or a guest speaker is unable to attend in person, we will send all registered students an email and/or post a CANVAS announcement with a Zoom link for remote instruction or a plan for making up the class.



Brief Course Description:

A key element in maintaining a healthy human environment is Exposure Monitoring for contaminants. In this course students will develop a thorough understanding of the underlying principles, analytical methods and instrumentation used to determine the intensity of exposure to contaminants in various environmental media including air, soil, surfaces, and water, and for measurement of exposure markers in human specimens.

Course Structure:

This class taught in a hybrid format.

Pre-recorded lectures, readings and assignments are made available at the start of each week of quarter via the **Course Modules page** (<https://canvas.uw.edu/courses/1786456/modules>) on the canvas site. We recommend that you use this page to navigate the course.

The in-class sessions (Wednesdays, 1230 to 1:20 PM **HSI I142**  (<http://www.washington.edu/classroom/HSI+I142>), Fridays 12:30 to 2:20 PM **HST T531**  (<http://HST%20T531>)) are used for you to ask any clarifying questions about the lecture materials and the assignments.

Course Objectives:

At the end of the course, students should be able:

1. To describe the strategy and rationale for environmental sampling and exposure monitoring, including the selection of appropriate sampling methods.
2. To demonstrate the application of principles and techniques for sampling air and contaminated surfaces, food, drinking water, and human specimens to exposure monitoring.

3. To choose and explain the proper chemical and physical analytical methods to be applied to these samples.
4. To implement standard methods of validation and evaluation to determine the strengths and limitations of each sampling and analytical method, and to decide whether results are sensible within those limitations.
5. To identify and describe the standard published references in environmental sampling and analysis for assessment of human exposure.

Course Texts:

Zhang, C. Fundamentals of Environmental Sampling and Analysis. Hoboken, NJ: John Wiley & Sons, 2007.

Electronic access to this text:

<http://washington.ebilib.com/patron/FullRecord.aspx?p=287305> 

(<http://washington.ebilib.com/patron/FullRecord.aspx?p=287305>).

Ramachandran, G. Occupational Exposure Assessment for Air Contaminants. Boca Raton, FL: Taylor & Francis, 2005.

<http://washington.ebilib.com.offcampus.lib.washington.edu/patron/FullRecord.aspx?p=264072> 

(<http://washington.ebilib.com.offcampus.lib.washington.edu/patron/FullRecord.aspx?p=264072>).

Note that you do not need to purchase these textbooks. pdfs of the relevant chapters are linked on each course module.

Course Requirements:

1. Reading assignments: Students should read the assigned readings for each module. Reading assignments will come from the required texts and provided handouts.
2. Recorded lectures: Students should view the recorded lectures for each module, prior to attending the in-class sessions.
2. Homework problems: Problem sets will be assigned, approximately once per week, and are to be completed by each student independently. Homework will be graded and returned in a timely fashion.

Basis for Grading:


The final grade will be determined based on scores from the assigned homework problems. There are 10 homework assignments for this course, each of which is weighted equally in determining your final grade.

Students with Disabilities:

Access and Accommodation

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](tel:206-543-8924) or uwdrs@uw.edu (<mailto:uwdrs@uw.edu>) or disability.uw.edu (<http://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.

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.

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.

Use of Generative Artificial Intelligence in Coursework


Artificial Intelligence tools, though useful in many contexts, are inappropriate for use in this course. An important outcome of this course is to strengthen your own abilities as a thinker and communicator. That is only possible when you do your own work. You may not submit work that is written wholly or partially by an AI tool. Assignment submissions may be run through AI detection software. If your submission appears to have been written using AI, you may either receive a failing grade or be asked to resubmit

Religious Accommodations Policy

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/). [\(https://registrar.washington.edu/staffandfaculty/religious-accommodations-policy/\)](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/). [\(https://registrar.washington.edu/students/religious-accommodations-request/\)](https://registrar.washington.edu/students/religious-accommodations-request/).

Course Summary:

Date	Details	Due
Mon Jan 13, 2025	 Assignment #1 (https://canvas.uw.edu/courses/1786456/assignments/9979719)	due by 5pm
Mon Jan 20, 2025	 Assignment #2 (https://canvas.uw.edu/courses/1786456/assignments/9979721)	due by 5pm
Mon Jan 27, 2025	 Assignment #3 (https://canvas.uw.edu/courses/1786456/assignments/9979722)	due by 5pm
Fri Jan 31, 2025	 Assignment #4 (https://canvas.uw.edu/courses/1786456/assignments/9979723)	due by 5pm
Fri Jul 4, 2025	 Assignment #5 (https://canvas.uw.edu/courses/1786456/assignments/9979724)	due by 5pm
Fri Aug 22, 2025	 Assignment #6 (https://canvas.uw.edu/courses/1786456/assignments/9979725)	due by 5pm
Fri Oct 3, 2025	 Assignment #7 (https://canvas.uw.edu/courses/1786456/assignments/9979726)	due by 5pm
Fri Nov 14, 2025	 Assignment #8 (https://canvas.uw.edu/courses/1786456/assignments/9979727)	due by 5pm
Fri Dec 26, 2025	 Assignment #9 (https://canvas.uw.edu/courses/1786456/assignments/9979728)	due by 5pm

Date	Details	Due
Fri Feb 6, 2026	 Assignment #10 (https://canvas.uw.edu/courses/1786456/assignments/9979720)	due by 5pm