

ENV H 596/NURS 580

Current Issues In Occupational and Environmental Medicine

Autumn 2017

Course Times: Thursdays, 3:30pm - 5:20pm

Course Location: South Campus Center (SOCC) 348

EXCEPT on 10/26: Health Sciences Building (HSB) F348

Instructors:

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Course Website: <https://canvas.uw.edu/courses/1116980>

Course Description:

This course is offered during Autumn, Winter and Spring quarters of the academic year and is a requirement for UW Occupational and Environmental Medicine (OEM) residents, Madigan Preventive Medicine (PM) residents, and other students enrolled in the DEOHS OEM MPH academic degree program. The course is also open to other clinically-oriented students, including but not limited to occupational and environmental health nursing students, medical fellows in other medical subspecialties, residents in internal medicine, family medicine, emergency medicine, and rehabilitation medicine, and third and fourth year medical students. The course is also open to non-clinically-oriented students, including exposure sciences students, with permission of the instructors.

During the Autumn 2017 quarter, this course will focus on an array of Occupational and Environmental Medicine (OEM) topics and current issues including OEM law and regulation, work organization and stress, disability prevention and return to work, occupational health quality improvement, substance abuse in the workplace, labor management partnerships, and the future of occupational health. Emphasis is placed on critical reading of the literature and practical application of evidence-based OEM to real world

scenarios. To promote integration of concepts, students will watch short video lectures, review background materials, and read pre-assigned journal articles before each session, and discussions involving both students and faculty/guest experts will occur during class time.

Course Logistics:

Students may register for one to six quarters for this course, and up to 12 credits can be earned for taking it. Students may register for the course on a graded or credit/no credit basis, although graded status is required if the course is being taken to fulfill a degree requirement. UW OEM residents and Madigan PM residents typically attend and participate in all six quarters of the seminar over a two year cycle. *During the second year (for second year beginning Fall 2018), students enrolled in the two year cycle additionally learn to select appropriate materials for and facilitate in-class case-based discussions.*

E-mail is the standard medium used for communication regarding this course, and readings and other resources will be distributed via the course web site. Students are responsible for ensuring that their correct email address is on file and for informing the instructors if unable to use electronic media.

Remote Participation:

In situations deemed by the instructors to be necessary, students and faculty may participate remotely using the [ZOOM video conferencing platform](#). For each weekly session, a unique login URL and login instructions will be listed on the Canvas course site. ZOOM is easy to use and only requires a computer or laptop with a built-in camera, microphone, and reliable wifi or Ethernet connection. First time users will be prompted to download and install a desktop client application (which may require administrative permissions if the computer is centrally managed). Users may create a free account or login as a guest each time. More detailed information can be found in "[ZOOM – Getting Started on the PC and MAC.](#)"

Students requesting to participate remotely must request permission from the instructors at least one week prior to the class.

Course Learning Objectives:

By the end of this course, students should be able to:

1. Discuss the basic elements of evidence-based medicine, and the challenges associated with practicing evidence-based OEM.
2. Critically review a scientific paper, using a structured approach to determine the validity of the work and to describe how it might affect the practice of occupational and environmental medicine.
3. Describe the process of developing a graduated return to work (GRTW) program, the benefits of GRTW, common barriers to returning to work, and the evidence to support GRTW.
4. Describe the implications of unnecessary missed work after work-related injury and illness and the application of healthcare quality improvement to long-term work disability prevention.
5. Describe the impact of drug and alcohol abuse in the workplace and the role of industry and government programs in preventing and controlling drug and alcohol abuse.
6. Summarize the goals of environmental law and policy and the challenges associated with establishing environmental law and policy, and understand how individual environmental statutes impact the environment and public health.

7. Summarize the basic elements of the legal and regulatory framework for occupational medicine, including the rulemaking process under the OSH Act, employer duties and worker rights, and differences in roles between OSHA and NIOSH.
8. Describe the obligations of OEM providers to participate in patient legal cases, and distinguish between the different roles and OEM provider may play in legal cases.
9. Describe the different types of labor-management partnerships, their role in promoting occupational health and safety, and how such partnerships will need to adapt in the face of changing work organization and climate.
10. Discuss the implications of the changing nature of work on worker health and occupational health practice and research.
11. *Second year students (for second year beginning Fall 2018): Select appropriate materials for and facilitate discussion of cases illustrating current issues in OEM.*

Course Format:

Overview:

This course uses a flipped classroom approach (<http://www.washington.edu/teaching/teaching-resources/flipping-the-classroom/>). Prior to each session, students watch a short video mini-lectures, review background materials, and read the assigned journal article. In-class time is devoted to: assessing uptake of information presented in the short lecture videos and background materials using a question-and-answer format, working through a case-based exercise, discussing the weekly journal article, and interacting with guest experts.

Session format:

In general, the format for each session will consist of:

15 min: Knowledge probe using question-and-answer format

20 min: Journal article review and discussion

30 min: Case-based exercise

45 min: Guest lecturer interactive session

Course Requirements:

High-yield readings and review of multimedia resources combined with instructor- and student-led discussions and activities in class will test students' ability to demonstrate application of knowledge.

Evaluation methods

Student-led journal article discussion: At the start of the quarter, each student will sign up for 1-2 sessions at which to lead a 20 minute journal article discussion. Students will be expected to generate and distribute to the class questions for journal article discussion in advance of the session and to lead the group in systematically discussing and critically appraising the journal article using techniques reviewed by the instructors during the first session of the quarter. The journal article discussion will be evaluated based on the depth of critical appraisal of the article, quality of discussion questions, and the clarity of presentation.

Weekly reflection. Once a week, students will be asked to write for instructor review a brief written reflection on one aspect of the weekly topic most notable to them, where in the preparatory materials/preparation for class this aspect became apparent, and one question that review of preparatory materials has generated for the guest expert and/or instructors. These assignments will be graded.

Second year student only (for students enrolled in the two year cycle who become second year students starting Fall 2018):

Article and case selection, and student-led case discussion: *At the start of the quarter each second year student will sign up for approximately 2 sessions for which to select appropriate journal review articles and cases illustrative of the weekly topic, discuss them with the instructors, and distribute them to the class at least one week prior to the corresponding session. Students will lead 30 minute case discussions based on the selected cases using a toolkit provided by the instructors.*

Readings and Other Preparatory Materials:

All readings, videos, and other materials will be posted on the class website. All students are expected to be able to access class materials via the course website. If this presents a problem, students are expected to let the instructor know immediately.

Please be advised that to use the electronic material on the course website, you must agree to the following statement:

The copyright law of the United States (Title 17, United States Code) governs the making of photocopies or other reproductions of copyrighted materials. Under certain conditions specified in the law, libraries and archives are authorized to furnish a photocopy or other reproduction. One of these specified conditions is that the photocopy or reproduction is not to be used for any purpose other than private study, scholarship, or research. If a user makes a request for, or later uses, a photocopy or reproduction for purposes in excess of fair use that user may be liable for copyright infringement.

Student Evaluation:

Course grades will be determined on the basis of:

Journal article discussion (80%)

Weekly reflection (20%)

Second year students (students enrolled in the two year cycle who become second year students starting Fall 2018):

Journal article discussion (40%)

Weekly reflection (20%)

Article and case selection (20%)

Student-led case discussion (20%)

Assignment of numeric grades will use UW Department of Health Services grading guidelines for graduate students. More details are available at the course website.

<http://depts.washington.edu/hserv/grading>

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 (*default category*)

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

Access and Accommodations:

Your experience in this class is important to us, and 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 experience barriers based on a disability or temporary health condition, please seek a meeting with Disability Resources for Students (DRS) to discuss and address them. If you have already established accommodations with DRS, please communicate your approved accommodations to your instructor at your earliest convenience so we can discuss your needs in this course.

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. If you have not yet established services through DRS, but have a temporary health condition or permanent disability that requires accommodations (this can 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 or disability.uw.edu

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 478-120). 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.

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.

Course Schedule

Date	Topic	Guest Expert	Preparation/Readings
09/28/17	Course Introduction & Evidence-Based Practice of Occupational and Environmental Medicine	N/A	View Mini Lecture*: - EBM Read Background: - Van Dijk FJ et al. A Knowledge Infrastructure for Occupational Safety and Health. <i>J Occup Environ Med.</i> 2010; 52(12):1262-8 - Verbeek JH et al. Evidence Based Medicine for Occupational Health. <i>Scand J Work Environ Health.</i> 2002; 28 (3): 197 – 204 Review EBM_Case
10/05/17	Evidence-Based Return to Work	Ann Tu	View Mini Lecture*: - RTW Read Background: - WA State Dept of L&I. Attending Provider's Return to Work Desk Reference. 2004. Read Journal Review Article: - Spector JT et al. Promoting Early, Safe Return to Work in Injured Employees: A Randomized Trial of a Supervisor Training Intervention in a Healthcare Setting. <i>J Occup Rehabil.</i> 2017; 27:70–81 Review RTW_case
10/12/17	Work Disability Prevention through Quality Improvement	Louis Lim	View Mini Lecture*: - Disability_QI Read Background: - U.S. Department of Health and Human Services, Health Resources and Services Administration (HRSA). Quality Improvement. April 2011. - Wickizer TM et al. Improving the Quality of Occupational Health Care in Washington State: New Approaches to Designing Community-Based Health Care Systems. <i>J Ambulatory Care Manage.</i> 2002; 25(2): 43–52 (<i>Optional</i>) Read Journal Review Article: - Turner JA et al. A Prospective, Population-Based Study of Workers With Back Injuries. <i>Spine.</i> 2008; 3 (25): 2809 –2818 Review Disability_QI_case

10/19/17	Work Organization, Stress, and the Future of Occupational Health	Noah Seixas/Trevor Peckham	<p>View Mini Lecture*:</p> <ul style="list-style-type: none"> - Work_Org_Stress <p>Read Background:</p> <ul style="list-style-type: none"> - Peckham TK et al. Creating a future for Occupational Health. <i>Annals of Work Exposures and Health</i>. 2017; 61 (1): 3–15 <p>Read Journal Review Article:</p> <ul style="list-style-type: none"> - Bergström G et al. Preventing sickness absenteeism among employees with common mental disorders or stress-related symptoms at work: Design of a cluster randomized controlled trial of a problem-solving based intervention versus care-as-usual conducted at the Occupational Health Services. <i>BMC Public Health</i>. 2017; 17:436 <p>Review Work_Org_Stress_case</p>
10/26/17 (in HSB F348!)	Labor Management Partnerships and Workplace Health and Safety	Dan Jacoby	<p>View Mini Lecture*:</p> <ul style="list-style-type: none"> - Labor <p>Read Background:</p> <ul style="list-style-type: none"> - Okun A et al. Trade associations and labor organizations as intermediaries for disseminating workplace safety and health information. <i>Am J Ind Med</i>. 2017;60:766–775. - American Public Health Association (APHA). Ensuring Workplace Protections for Temporary Workers. 2014; Policy number: 20148 - Lui H et al. The Pennsylvania Certified Safety Committee Program: An Evaluation of Participation and Effects on Work Injury Rates. <i>Am. J. Ind.Med</i>. 2010; 53:780–791 (<i>Optional</i>) <p>Read Journal Review Article:</p> <ul style="list-style-type: none"> - Amick BC et al. Protecting Construction Worker Health and Safety in Ontario, Canada: Identifying a Union Safety Effect. <i>J Occup Environ Med</i>. 2015; 57(12): 1337 – 1342 <p>Review Labor_Case</p>
11/02/17	Legal and Regulatory Framework for Environmental Health and Safety	Lianne Sheppard	<p>View Mini Lecture*:</p> <ul style="list-style-type: none"> - Regulatory_Env <p>Read Background:</p> <ul style="list-style-type: none"> - Rosenstock. Chapter 56. Occupational and Environmental Legislation, Regulation, and Litigation in the United States. p1239 - 1244 <p>Read Journal Review Article:</p>

			<ul style="list-style-type: none"> - Jones MR et al. Race/Ethnicity, Residential Segregation, and Exposure to Ambient Air Pollution: The Multi-Ethnic Study of Atherosclerosis (MESA). <i>Am J Public Health</i>. 2014;104:2130–2137. <p>Review Regulatory_Env_Case</p>
11/09/17	Occupational and Environmental Medicine Providers and Patient Legal Cases	Drew Brodtkin	<p>View Mini Lecture*:</p> <ul style="list-style-type: none"> - Legal <p>Read Background:</p> <ul style="list-style-type: none"> - Guidotti L. Evaluation of Scientific Evidence in Law, Adjudication and Policy: When Occupational Health takes the Witness Chair. <i>Med Law</i>. 2006; 97 (2): 167 – 174 - Sinclair DC et al. Epidemiology in the Courtroom: An Evidence-Based Paradigm for the Determination of Causation in Compensation Environments. <i>J Occup Environ Med</i>. 2010;52(4): 456-461 <i>(Optional)</i> <p>Read Journal Review Article:</p> <ul style="list-style-type: none"> - White DM; Longstreth WT; Rosenstock L; Claypoole KHJ; Brodtkin CA; Townes BD. Neurologic Syndrome in 25 Workers From an Aluminum Smelting Plant. <i>Arch Intern Med</i>. 1992;152(7):1443-1448. doi:10.1001/archinte.1992.00400190071014 <p>Review Legal_case</p>
11/16/17	Alcohol and Substance Abuse in the Workplace	Chunbai Zhang	<p>View Mini Lecture*:</p> <ul style="list-style-type: none"> - Drug_Abuse <p>Read Background:</p> <ul style="list-style-type: none"> - Rom. Chapter 52. Alcohol and Drug Abuse in Industry. - Employee Assistance Programs: An Overview (Summary Handout). - Phillips JA et al. Marijuana in the Workplace: Guidance for Occupational Health Professionals and Employers. <i>J Occup Environ Med</i>. 2015; 57 (4): 459 - 475 - Wickizer TM et al. Do Drug-Free Workplace Programs Prevent Occupational Injuries? Evidence from Washington State Health Services Research. 2004; 39:1 <i>(Optional)</i> <p>Read Journal Review Article:</p> <ul style="list-style-type: none"> - Asbridge M et al. Acute cannabis

			consumption and motor vehicle collision risk: systematic review of observational studies and meta-analysis. <i>BMJ</i> . 2012;344 Review Drug_Abuse_Cases
11/23/17	<i>Thanksgiving Break</i>		
11/30/17	TBD <i>Note:</i> <i>OEM Grand Rounds:</i> <i>Chemical exposures in the workplace and the use of safer chemical alternatives</i> <i>6:00 pm Registration and networking with heavy hors d'oeuvres</i> <i>6:45 Lecture OR attend via live webinar</i> <i>For more information, see:</i> Grand Rounds Flyer	Robert Harrison (tentative)	None
12/7/17	Legal and Regulatory Framework for Occupational Health and Safety & Course wrap-up	N/A	View Mini Lecture*: - Regulatory_Occ Read Background: - Rosenstock. Chapter 56. Occupational and Environmental Legislation, Regulation, and Litigation in the United States. p1237 - 1239 - Kosnett MJ et al. Recommendations for Medical Management of Adult Lead Exposure. <i>Environ Health Perspect</i> . 2007; 115:463–471 - Laidlaw MAS et al. Lead Exposure at Firing Ranges - Review. <i>Environmental Health</i> . 2017; 16:34 (<i>Optional</i>) Read Journal Review Article: - Alarcon WA et al. Elevated Blood Lead Levels Among Employed Adults — United States, 1994–2012. <i>MMWR</i> . 2016; 62 (54): 52 - 75 - Okun A et al. Trends in Occupational Lead Exposure Since the 1978 OSHA Lead Standard. <i>Am J Ind Med</i> . 2004; 45:558 – 572 Review Regulatory_Occ_Cases

* Note: Mini-lectures can be viewed in the Panopto Recordings tab on the course Canvas website.