

Course Syllabus

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ENV H 596/NURS 580

Current Issues In Occupational And Environmental Medicine

Autumn, 2018

2 credits, graded

Thursdays, 3:30pm - 5:20pm

South Campus Center (SOCC) 346

Instructor:

Esi Nkyekyer, Acting Assistant Professor

Department of Medicine (General Internal Medicine)

Office: HSB F 226-B

Email: esink@uw.edu (<mailto:esink@uw.edu>)

Phone Number: (206) 616-9870

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

Course Website: <https://canvas.uw.edu/courses/1220683>

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 instructor.

During the Autumn 2018 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 the pre-assigned journal articles before each session. Journal article and case discussions facilitated by the instructor 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 typically attend and participate in all six quarters of the seminar over a two-year cycle. Madigan PM residents typically attend and participate in 3 quarters of the seminar over a one-year period. *During the second year (for second year beginning Fall 2018), UW OEM residents enrolled in the two year cycle will 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. 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 instructor if they are unable to use electronic media.

Remote Participation:

In situations deemed by the instructor to be necessary, students may participate remotely using the **ZOOM video conferencing platform** (<https://zoom.us/>). A login URL and login instructions will be provided if remote participation is requested and approved. 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**" (https://support.zoom.us/hc/en-gb/article_attachments/203114083/Zoom_Getting_Started_with_PC_and_MAC_v6.pdf).

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. 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.
4. 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.
5. 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.
6. 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.
7. 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.
8. 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.
9. Discuss the implications of the changing nature of work on worker health and occupational health practice and research.
10. 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.
11. *Second year students (for second year beginning Fall 2018): Select appropriate materials for and facilitate discussion of journal articles and 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/> [\(http://www.washington.edu/teaching/teaching-resources/flipping-the-classroom/\)](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, discussing the journal article, and going through a case-based exercise.

Session format:

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

20 min: Knowledge probe using question-and-answer format (using slido.com)

5 min: Weekly reflection

30 min: Journal article review and discussion

45 min: Case-based exercise

10 min: Session wrap up

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 20-30 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 instructor. 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 1-2 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 30-45 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 (60%)

Case-based discussion (20%)

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>).
<http://depts.washington.edu/hserv/grading> _(<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 (<http://depts.washington.edu/uwdrs/>)

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](http://sph.washington.edu/students/academicintegrity/) (<http://sph.washington.edu/students/academicintegrity/>). 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	Preparation/Readings
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09/27/18	<p>Course Introduction & Evidence-Based Practice of Occupational and Environmental Medicine</p>	<p>Mini Lecture:</p> <ul style="list-style-type: none"> - EBM <p>Background:</p> <ul style="list-style-type: none"> - Van Dijk FJ et al. A knowledge infrastructure for occupational safety and health. J Occup Environ Med. 2010 Dec;52(12):1262-8. - Reul NK. Introduction to Evidence-Based Decision Making in a Public Workers' Compensation Agency. Phys Med Rehabil Clin N Am. 2015 Aug;26(3):435-43. - Javaher SP. Guideline Development Process in a Public Workers' Compensation System. Phys Med Rehabil Clin N Am. 2015 Aug;26(3):427-34. <p>Journal Review:</p> <ul style="list-style-type: none"> - Hunt DL et al. A New Method of Assessing the Impact of Evidence-Based Medicine on Claim Outcomes. J Occup Environ Med. 2016 May;58(5):519-24.
10/04/18	<p>Legal and Regulatory Framework for Occupational Health and Safety</p>	<p>Mini Lecture:</p> <ul style="list-style-type: none"> - Regulatory_Occ <p>Background:</p> <ul style="list-style-type: none"> - Rosenstock. Chapter 56. Occupational and Environmental Legislation, Regulation, and Litigation in the United States. p1237 - 1239 - OSHA Final Rule to Protect Workers from Beryllium Exposure - WA Proposed Rule Making for OSHA Beryllium Rule - WA Proposed Rule Language for Beryllium Rule <p>Journal Review:</p> <ul style="list-style-type: none"> - Thomas CA et al. Long-term efficacy of a program to prevent Beryllium Disease. Am J Ind Med. 2013 Jul;56(7):733-41.

10/11/18	Legal and Regulatory Framework for Environmental Health and Safety	<p>Mini Lecture:</p> <ul style="list-style-type: none"> - Regulatory_Env <p>Background:</p> <ul style="list-style-type: none"> - Rosenstock. Chapter 56. Occupational and Environmental Legislation, Regulation, and Litigation in the United States. p1239 – 1244 - Balmes JR. Climate Change and Implications for Prevention. California's Efforts to Provide Leadership. Ann Am Thorac Soc. 2018 Apr;15(Supplement_2):S114-S117 <p>Journal Review:</p> <ul style="list-style-type: none"> - Cushing L et al. Carbon trading, co-pollutants, and environmental equity: Evidence from California's cap-and-trade program (2011–2015). PLoS Med. 2018 Jul 10;15(7):e1002604.
10/18/18	Evidence-Based Return to Work	<p>Mini Lecture:</p> <ul style="list-style-type: none"> - RTW <p>Background:</p> <ul style="list-style-type: none"> - WA State Dept of L&I. Attending Provider's Return to Work Desk Reference. 2004. <p>Journal Review:</p> <ul style="list-style-type: none"> - Mikkelsen MB et al. Systematic review and meta-analysis of interventions aimed at enhancing return to work for sick-listed workers with common mental disorders, stress-related disorders, somatoform disorders and personality disorders. Occup Environ Med. 2018 Sep;75(9):675-686
10/25/18	Work Disability Prevention through Quality Improvement	<p>Mini Lecture:</p> <ul style="list-style-type: none"> - Disability_QI <p>Background:</p> <ul style="list-style-type: none"> - US Department of Health and Human Services. Health Resources and Services Administration. Quality

		<p>Improvement.</p> <ul style="list-style-type: none"> - 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 Ambul Care Manage.</i> 2002 Apr;25(2):43-52. <p>Journal Review:</p> <ul style="list-style-type: none"> - Drury DL et al. Patient satisfaction measurement in occupational and environmental medicine practice. <i>J Occup Environ Med.</i> 2018 May;60(5):e227-e231
11/01/18	Occupational and Environmental Medicine Providers and Patient Legal Cases	<p>Mini Lecture:</p> <ul style="list-style-type: none"> - Legal <p>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. Epidemiology in the courtroom: an evidence-based paradigm for the determination of causation in compensation environments. <i>J Occup Environ Med.</i> 2010 Apr;52(4):456-61. (<i>optional</i>) <p>Journal Review:</p> <ul style="list-style-type: none"> - Harris DA et al. Improving the asthma disparity gap with legal advocacy? A qualitative study of patient-identified challenges to improve social and environmental factors that contribute to poorly controlled asthma. <i>J Asthma.</i> 2017 Sep 5:1-9. [Epub ahead of print]
11/08/18	Labor Management Partnerships and Workplace Health and Safety	<p>Mini Lecture:</p> <ul style="list-style-type: none"> - Labor <p>Background:</p> <ul style="list-style-type: none"> - McLellan RK. Work, Health, And Worker Well-Being: Roles And Opportunities For Employers. <i>Health</i>

		<p>Aff (Millwood). 2017 Feb 1;36(2):206-213.</p> <ul style="list-style-type: none"> - Okun AH et al. Trade associations and labor organizations as intermediaries for disseminating workplace safety and health information. Am J Ind Med. 2017 Sep;60(9):766-775. <p>Journal Review:</p> <ul style="list-style-type: none"> - Yassi A et al. Effectiveness of joint health and safety committees: a realist review. Am J Ind Med. 2013 Apr;56(4):424-38.
11/15/18	Work Organization, Stress, and the Future of Occupational Health	<p>Mini lecture:</p> <ul style="list-style-type: none"> - Work_Org_Stress <p>Background:</p> <ul style="list-style-type: none"> - Peckham TK et al. Creating a future for Occupational Health. Annals of Work Exposures and Health. 2017; 61 (1): 3–15 <p>Journal Review:</p> <ul style="list-style-type: none"> - Meischke H et al. Protocol: a multi-level intervention program to reduce stress in 9-1-1 telecommunicators. BMC Public Health. 2018 May 2;18(1):570.
11/22/18	<i>Thanksgiving Break</i>	
11/29/18	Alcohol and Substance Abuse in the Workplace	<p>Mini Lecture:</p> <ul style="list-style-type: none"> - Drug_Abuse <p>Background:</p> <ul style="list-style-type: none"> - Rom. Chapter 52. Alcohol and Drug Abuse in Industry. - Phillips JA et al. Marijuana in the Workplace: Guidance for Occupational Health Professionals and Employers. J Occup Environ Med. 2015; 57 (4): 459 - 475 <p>Journal Review:</p>

		- Pidd K et al. How effective is drug testing as a workplace safety strategy? A systematic review of the evidence. <i>Accid Anal Prev.</i> 2014 Oct;71:154-65.
12/6/18	Course Review, Wrap-up, and Feedback	Course Review, Wrap-up and Feedback

APPENDIX

A. Guideline for Case Selection and Development



1. Review the objectives for the session for which you have chosen to select and develop a case.
2. Review example cases provided for other sessions.
3. Review the following resources about using case studies to teach:
 1. Boston University Center for Teaching and Learning : Using Case Studies to Teach (<https://www.bu.edu/ctl/teaching-resources/using-case-studies-to-teach/> (<https://www.bu.edu/ctl/teaching-resources/using-case-studies-to-teach/>))
 2. University of Washington Center for Teaching and Learning: Engaging Students in Learning (<https://www.washington.edu/teaching/teaching-resources/engaging-students-in-learning/leading-dynamic-discussions/> (<https://www.washington.edu/teaching/teaching-resources/engaging-students-in-learning/leading-dynamic-discussions/>))
 3. Yale Center for Teaching and Learning: Case-Based Learning (<https://ctl.yale.edu/faculty-resources/strategies-teaching/case-based-learning> (<https://ctl.yale.edu/faculty-resources/strategies-teaching/case-based-learning>))
 4. Stanford Teaching Commons: Promoting Active Learning (<https://teachingcommons.stanford.edu/resources/learning-resources/promoting-active-learning> (<https://teachingcommons.stanford.edu/resources/learning-resources/promoting-active-learning>))
4. Review the following resources from which you can select and develop a case.
 1. NIOSH Health Hazard Evaluations: <https://www.cdc.gov/niosh/hhe/default.html> (<https://www.cdc.gov/niosh/hhe/default.html>)
 2. ATSDR Case Studies in Environmental Medicine: <https://www.atsdr.cdc.gov/csem/csem.html> (<https://www.atsdr.cdc.gov/csem/csem.html>)
 3. Literature search of case studies and cases series (e.g. Pubmed, Google Scholar etc.)
 4. Textbooks (e.g. LaDou, Rom etc.)
5. Case selection and development.
 1. Write up a case with its associated questions.
 2. Prepare answers for the case
6. Provide the case description, questions, and answers to the instructor at least 1 week before class

















7. Lead your colleagues through the discussion of the case during your assigned session.

B. Guideline for Selecting a Journal Article for Discussion

1. Review the objectives for the session for which you have chosen to select and discuss a journal article.
2. Review example journal articles provided for other course sessions.
3. Review the following resources about selecting and presenting journal articles.
 1. Schwartz MD et al. Improving journal club presentations, or, I can present that paper in under 10 minutes. ACP J Club. 2007 Jul – Aug;147:A8.
(<http://acpjc.acponline.org/Content/147/1/issue/ACPJC-2007-147-1-A08.htm>
(<http://acpjc.acponline.org/Content/147/1/issue/ACPJC-2007-147-1-A08.htm>.)
 2. Johns Hopkins Bloomberg School of Public Health Department of Epidemiology: Journal Club Tips for Presenters (https://www.jhsph.edu/research/centers-and-institutes/welch-center-for-prevention-epidemiology-and-clinical-research/_docs/_pre-2016-redesign/Journal_Club_Aids/JrnIClub_Tips.pdf .(https://www.jhsph.edu/research/centers-and-institutes/welch-center-for-prevention-epidemiology-and-clinical-research/_docs/_pre-2016-redesign/Journal_Club_Aids/JrnIClub_Tips.pdf.)
 3. Judd S et al. Approach to Presenting a Clinical Journal Club. Gastroenterology 2014;146:1591–1593
([https://www.gastrojournal.org/article/S0016-5085\(14\)00550-2/pdf](https://www.gastrojournal.org/article/S0016-5085(14)00550-2/pdf)
([https://www.gastrojournal.org/article/S0016-5085\(14\)00550-2/pdf](https://www.gastrojournal.org/article/S0016-5085(14)00550-2/pdf).)
 4. NIH Intramural Research Program I am Intramural Blog: 5 tips for journal club first-timers
(<https://irp.nih.gov/blog/post/2015/03/5-tips-for-journal-club-first-timers>
(<https://irp.nih.gov/blog/post/2015/03/5-tips-for-journal-club-first-timers>.)
4. Select a journal article from the primary literature and from a peer-reviewed journal.
5. Use the 'Appraising the Evidence: A Quick Guide to Reviewing a Journal Article' tool in Canvas to help you prepare to present the journal article to your peers.
6. In your presentation, aim to engage your peers in discussion of the journal article.

Course Summary:

Date	Details	
Thu Sep 27, 2018	 EBM Assignment https://canvas.uw.edu/courses/1220683/assignments/4345872	due by 3:29pm
	 Journal Article Discussion (EBM) - Instructor https://canvas.uw.edu/courses/1220683/assignments/4345870	due by 3:29pm

Date	Details	
Thu Oct 4, 2018	 Journal Article Discussion (Regulatory_Occ) - Instructor (https://canvas.uw.edu/courses/1220683/assignments/4351752)	due by 3:29pm
	 Regulatory_Occ Assignment (https://canvas.uw.edu/courses/1220683/assignments/4351750)	due by 3:29pm
Thu Oct 11, 2018	 Journal Article Discussion (Regulatory_Env) - Jessica Chuang (https://canvas.uw.edu/courses/1220683/assignments/4345867)	due by 3:29pm
	 Regulatory_Env Assignment (https://canvas.uw.edu/courses/1220683/assignments/4345874)	due by 3:29pm
Thu Oct 18, 2018	 Journal Article Discussion (RTW) - Duane Robinson (https://canvas.uw.edu/courses/1220683/assignments/4351767)	due by 3:29pm
	 RTW Assignment (https://canvas.uw.edu/courses/1220683/assignments/4351766)	due by 3:29pm
Thu Oct 25, 2018	 Disability_QI Assignment (https://canvas.uw.edu/courses/1220683/assignments/4351770)	due by 3:29pm
	 Journal Article Discussion (Disability_QI) - Richard Taing (https://canvas.uw.edu/courses/1220683/assignments/4351792)	due by 3:29pm
Thu Nov 1, 2018	 Journal Article Discussion (Legal) - Elizabeth Friedman (https://canvas.uw.edu/courses/1220683/assignments/4345869)	due by 3:29pm
	 Legal Assignment (https://canvas.uw.edu/courses/1220683/assignments/4345873)	due by 3:29pm
Thu Nov 8, 2018	 Journal Article Discussion (Labor) - Monya De (https://canvas.uw.edu/courses/1220683/assignments/4351859)	due by 3:29pm
	 Labor Assignment (https://canvas.uw.edu/courses/1220683/assignments/4351858)	due by 3:29pm
Thu Nov 15, 2018	 Journal Article Discussion (Work_Org_Stress) - Marian Hyatt (https://canvas.uw.edu/courses/1220683/assignments/4345868)	due by 3:29pm
	 Work_Org_Stress Assignment (https://canvas.uw.edu/courses/1220683/assignments/4351794)	due by 3:29pm
Thu Nov 29, 2018	 Drug_Abuse Assignment (https://canvas.uw.edu/courses/1220683/assignments/4345866)	due by 3:29pm
	 Journal Article Discussion (Drug_Abuse) - Jason Dickens (https://canvas.uw.edu/courses/1220683/assignments/4345871)	due by 3:29pm

Date

Details

Thu Dec 6, 2018



Course Review, Wrap-up and Feedback
<https://canvas.uw.edu/courses/1220683/assignments/4398565>

due by 3:29pm
