ENV H 596/NURS 580

Current Issues In Occupational and Environmental Medicine

Winter 2020

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

Course Location: South Campus Center (SOCC), Room 348

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Course Website: https://canvas.uw.edu/courses/1354920

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 Winter 2020 quarter, this course will focus on an array of Occupational and Environmental Medicine (OEM) topics and current issues related to biomonitoring, occupational medical surveillance, occupational public health surveillance, disparities in occupational health, disaster preparedness and response, risk communication in occupational and environmental clinical and population settings, and large scale workplace events. 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; discussions involving both students and faculty will occur during class time.

Course Logistics:
Students may register for one to six quarters of 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 of the course, 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. 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 Wi-Fi 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 log into UW Zoom Video Conferencing by following instructions available here, and join a UW Zoom meeting by following instructions available here.

Students desiring 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. 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.
2. Discuss the role and importance of biomonitoring in exposure and risk assessment, surveillance, and research in occupational and environmental health.
3. Define workplace medical surveillance, describe the differences between medical surveillance and screening, and summarize the limitations of OSHA medical surveillance.
4. Define occupational health surveillance and distinguish between active, passive and sentinel surveillance.
5. Describe how occupational health disparities arise, and how employment conditions, work organization, and job insecurity can exacerbate these health disparities.
6. Describe the role and importance of risk communication in the risk analysis framework, key goals of risk communication in the clinical setting, and factors that can influence the effectiveness of risk communication.
7. Describe the components of the disaster management cycle, and the framework for disaster preparedness and response in the United States.
8. Describe the common characteristics of, precipitating factors for, and appropriate response to large scale workplace events such as mass psychogenic illness.
9. Select appropriate materials for and facilitate discussion of cases illustrating current issues in OEM (Second Year Students).

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, discussing the journal article, and going through a case-based exercise. For some sessions, guest experts will be invited to engage students in discussion about real world applications of the session topic.

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

Session format (with guest expert):
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: Discussion with guest expert
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 students only *(for students enrolled in the two year cycle who become second year students):*

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 (*for students enrolled in the two year cycle who become second year students*):
> **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 UW Department of Health Services Departmental Grading Policy website and reproduced below.

  4.0 Excellent and exceptional work
  3.7 Strong work
  3.5 Competent and sound work
  3.3 Adequate work, although some weaknesses are evident
  3.0 Borderline work
  2.7 Deficient work

Access and Accommodations:
Your experience in this class is important to us. 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 are 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 . 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.

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. Accommodations must be requested within the first two weeks of this course using the Religious Accommodations Request form.

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 instructors, your advisor, a member of the departmental or SPH Diversity Committee and/or the program director. vg@uw.edu is a resource for students with classroom climate concerns.

Equity, Diversity and Inclusion:
Diverse backgrounds, embodiments and experiences are essential to the critical thinking endeavor at the heart of University education. In SPH, students 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.

Bias Concerns:
The Office of the Dean has a 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 at this link 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.

Writing Skills Resources:
Writing is an important transferable skill for all career pathways. Establishing a strong foundation in writing skills will help you be successful throughout your future course work and career. Although this course does not include

written assignments, if you feel that you could benefit from additional opportunities to improve your writing skills, 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.

APPENDIX

A. Guideline for Case Selection and Development:
    a. Review the objectives for the session for which you have chosen to select and develop a case.
    b. Review example cases provided for other sessions.
    c. Review the following resources about using case studies to teach:
        i. Boston University Center for Teaching and Learning : Using Case Studies to Teach (https://www.bu.edu/ctl/teaching-resources/using-case-studies-to-teach/)
        ii. 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/)
        iii. Yale Center for Teaching and Learning: Case-Based Learning (https://ctl.yale.edu/faculty-resources/strategies-teaching/case-based-learning)
        iv. Stanford Teaching Commons: Promoting Active Learning (https://teachingcommons.stanford.edu/resources/learning-resources/promoting-active-learning)
    d. Review the following resources from which you can select and develop a case.
        i. NIOSH Health Hazard Evaluations: https://www.cdc.gov/niosh/hhe/default.html
        ii. ATSDR Case Studies in Environmental Medicine: https://www.atsdr.cdc.gov/csem/csem.html
        iii. Literature search of case studies and cases series (e.g. Pubmed, Google Scholar etc.)
        iv. Textbooks (e.g. LaDou, Rom, Maxcy etc.)
    e. Case selection and development.
        i. Write up a case with its associated questions.
        ii. Prepare answers for the case
        iii. Provide the case description, questions, and answers to the instructor 1 week before class
        iv. Lead your colleagues through the discussion of the case during your assigned session.

B. Guideline for Selecting a Journal Article for Discussion
    a. Review the objectives for the session for which you have chosen to select and discuss a journal article.
    b. Review example journal articles provided for other course sessions.
    c. Review the following resources about selecting and presenting journal articles.
        i. 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)
        ii. 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/JrnlClub_Tips.pdf)
        iii. 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)
        iv. 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)
    d. Select a journal article from the primary literature and from a peer-reviewed journal.

e. 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.

f. In your presentation, aim to engage your peers in discussion of the journal article.

Course Schedule:

Date	Topic	Preparation/Readings
1/9/2020	*Cascadia Conference (No class)*	NA
1/16/2020	Course Introduction and Overview (NKYEKYER, SPECTOR)	Review course syllabus.
1/23/2020	Human Exposure Biomonitoring in Occupational and Environmental Health (NKYEKYER)	View Mini Lecture*: - Biomonitoring Read Background: - See Course Canvas Website Read Journal Review Article: - See Course Canvas Website Review Biomonitoring_Case - See Course Canvas Website
1/30/2020	Workplace Medical Surveillance Standards (SPECTOR)	View Mini Lecture*: - Med_Surveil Read Background: - See Course Canvas Website Read Journal Review Article: - See Course Canvas Website Review Med_Surveillance_Standards_Case - See Course Canvas Website
2/6/2020	Public Health Surveillance in Occupational Health (SPECTOR)	View Mini Lecture*: - Occ_PH_Surveil Read Background: - See Course Canvas Website Read Journal Review Article: - See Course Canvas Website Review Occ_PH_Surveillance_Case - See Course Canvas Website
2/13/2020	Risk Communication (SPECTOR)	View Mini Lecture*: - Risk_Comm Read Background: - See Course Canvas Website Read Journal Review Article: - See Course Canvas Website Review Risk_Comm_Case - See Course Canvas Website

2/20/2020	Disparities in Occupational Health (NKYEKYER)	View Mini Lecture*: - Disparities Read Background: - See Course Canvas Website Read Journal Review Article: - See Course Canvas Website Review Disparities_Case - See Course Canvas Website
2/27/2020	Disaster Preparedness and Response (NKYEKYER)	View Mini Lecture*: - Disaster_Prep Read Background: - See Course Canvas Website Read Journal Review Article: - See Course Canvas Website Review Disaster_Prep_Case - See Course Canvas Website
3/5/2020	Large-scale Workplace Events: Mass Psychogenic Illness (NKYEKYER)	View Mini Lecture*: - Psychogenic Read Background: - See Course Canvas Website Read Journal Review Article: - See Course Canvas Website Review Psychogenic_Case - See Course Canvas Website
3/12/2019	*Course Review, Wrap-up and Feedback*	NA

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