

Environmental Health 596 / Nursing 580

Current Issues in Occupational and Environmental Medicine

Spring Quarter 2014: Physical and Biological Hazards

Thursday 3:30-5:20 p.m. 4225 Roosevelt Way NE, room 2228

Instructor:

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Course Description:

This course provides a weekly seminar setting for presentations and discussions regarding a wide range of occupational and environmental health topics. It emphasizes current issues and real world situations faced in the practice of environmental and occupational health. The course will feature critical reading of the literature.

The course is designed to meet the needs of occupational medicine, industrial hygiene, occupational health nursing, occupational health services, and toxicology trainees, and meets Autumn, Winter, and Spring quarters. It is open to other students with permission of the instructor. Topics will be organized to achieve a core curriculum that does not repeat over a two-year period, so students may take multiple (up to six) quarters of the course. Format will include didactic presentations with discussion, student-led case/situation presentations followed by topical discussion, and journal club. Topics will include emerging occupational and environmental health issues and issues in administration of environmental/occupational health programs. An emphasis will be placed on issues which foster multi-disciplinary interaction between occupational/environmental health professionals (if students from multiple disciplines are enrolled). Student presentations will be made in inter-disciplinary teams when possible.

During this segment of the ENVH 596 / NURS 580 series, the Spring 2014 quarter, we will focus on topics related to occupational & environmental physical and biological hazards.

Among other goals, this course is designed to ensure that, upon completion of the occupational medicine training program, fellows have received information regarding a wide variety of topics important to the practice of environmental and occupational health. The course also emphasizes the ability to critically read the current literature. More than half of the sessions will be at least partly student-led. The course will provide an opportunity for students to develop and practice presentation skills, and demonstrate expertise in locating and using relevant, current, and evidence-based information sources.

Students may register for 1-6 quarters for the course in any sequence; up to 12 credits can be earned for taking it. Students may register for the course on a graded or credit/no credit basis, though graded status is typically required if you are taking this to fulfill a degree requirement. OEMP fellows are expected to attend and participate in six quarters of the seminar.

Canvas and email are the standard medium used for communication regarding this course, and readings will be distributed *generally* via Canvas or e-reserves. Students are responsible for ensuring that their correct email address is on file, and for informing the instructor if unable to use either electronic medium.

Course Learning Objectives for Spring 2014

At the end of this course, the student will be able to:

1. Critically review a scientific paper on a topic of interest, using a structured approach, to determine the validity of the work and to describe how it might affect the practice of occupational and environmental health.
2. Research an assigned topic, working in an interdisciplinary group, and demonstrate his or her expertise on that topic by professionally leading a portion of a class session on that topic.
3. Use electronic resources to research occupational and environmental health issues, and understand the difference between peer-reviewed and non-peer reviewed source materials.
4. Identify the major types and sources of biological and physical hazards in environmental and occupational settings, including infectious agents, noise, and high and low pressure environments, including diving and aviation and space environments.
5. Describe the major pathways of human exposure to representative biological and physical hazards in environmental and occupational settings
6. Describe the major effects of noise, heat, cold, high pressure environments, and low pressure environments on the human body.
7. Describe basic strategies for assessing, preventing, and controlling or managing biological and physical hazards in environmental and occupational settings
8. Identify major regulations, agencies, programs, and stakeholders related to biological and physical health hazards
9. Formulate strategies for preventing, controlling or managing biological and physical hazards related to a specific complex situation or issue
10. Effectively communicate information about biological and physical health risks and response strategies, both orally and in written form.

Course format:

The course consists of 10 sessions this quarter. Sessions will be in one of several formats:

- Lecture/discussion/student presentations. These will consist of a focussed presentation on a subject of general interest in occupational and environmental health, followed by discussion. Some of these will be faculty-led (including guest faculty), and students will lead some. While the combination of student presentations and group discussion will take the full allotted time, the formal portion of student presentations should generally be no more than 15 minutes per student in length.
- Case/situation presentation and discussion. Similar to lecture/discussion, but organized around a case or situation from a practice situation. The case presentation should be completed in 5 minutes or less, followed by 10 minutes of presenter- or instructor-directed discussion of salient points. The remaining time is left for either additional presentations or discussion.
- Journal club. These will consist of two or three articles. These may either be around a selected theme, or chosen from the most recent literature from selected journals. A student will lead the journal club (see Preparing A Student Presentation, below). The presentation should be limited to 15 minutes in length. Substantial resources on critical reading of journal articles are provided on the course web site, and an outline to follow is provided at the first class session. The student should follow these instructions.

Course Requirements:

1. Class presentations. Each student will play a principal role in class presentations once or twice each quarter. The type of presentation will depend on the subject matter, and the number of presentations depends on enrollment. More detail on these presentations is

provided below. If class registration is of sufficient magnitude, student groups will conduct these presentations.

2. Class attendance and participation. Students should come to the seminar prepared, and participate in the discussion. If readings are assigned for a session, these assignments should be read in advance and students should be able to discuss the material.
3. Examination. There will be no examination.

All students are expected to be able to access class materials via email and the course web-site. If this presents a problem for you let the instructor know immediately.

Basis for Grading:

Class Presentations 70%
Judged on quality of: student preparation; presentation materials; presentation style; quality of resource list or other handouts; and evidence of professionalism and interdisciplinary cooperation, if relevant.

Class Participation 30%
Judged on class attendance and participation in discussions.

This course is offered on both a graded (A section) and credit/no credit (B section) basis. The expected student contribution to the course is identical whichever grading status is chosen.

Assignment of numeric grades will use the 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 [or professional] 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

Preparing a student presentation

Choose a topic. We will balance between topics that need to get covered and topics of special interest to the class (because they are timely or related to a student's own interest or background). Because we have a long list of topics that must be covered in a two-year cycle, we need to cover several prescribed topics this quarter, as seen in the course schedule. A few of the topics may be changed, with instructor permission.

Meet with the instructor. The student or student group must meet with the instructor at least two, and preferable three or more weeks, prior to the presentation. At this meeting, the topic will be clarified, resource material and faculty identified, and a presentation format chosen. The student and instructor will agree on the scope of the presentation and best approach to preparation and presentation. If the session will be a journal club or other session requiring advance preparation by the other students in the seminar, these materials will be selected at this meeting.

Distribute materials in advance (if necessary). Materials for other students should be distributed two weeks in advance. This is especially important for journal club formats. Reading material will be distributed electronically via the web when possible.

IMPORTANT: For all student presentations covering a topic area (i.e., other than just discussing a brand new article), students should prepare a <i>resource list</i> that provides a list of excellent sources of information on the topic (e.g., high quality web-sites, recent review articles, seminal research

articles, or book chapters). This should be distributed as a one-page sheet to the class. If a group presentation, one collective resource list can be prepared for the student group.

ENVH 596 / NURS 580
Course Schedule
Spring 2014

	<u>Date</u>	<u>Topic</u>	<u>Student or Guest Speaker</u>
1	4/3	Course Introduction / Introduction to the Term's Topics; Critical Reading of the Literature: Occupational Infectious Diseases Part I	
2	4/10	Occupational Infectious Diseases Part II	
3	4/17	<i>Guest Speaker</i> Noise, Noise-induced Hearing Loss, and the Hearing Conservation Standard	Guest: Rabinowitz
4	4/24	<i>Student Presentations / Journal Club</i> Non-Ionizing Radiation	Students: Miller, Dawadi
5	5/1	<i>Student Presentations</i> Ionizing Radiation	Students: Sohng, Sikka, Cho
6	5/8	<i>Student Presentations</i> Diving Medicine	Students: Miller, Kimball Guest: Dulaigh
7	5/15	<i>Student Presentations</i> Environmental Infectious Diseases: Waterborne Infectious Disease	Students: Schladweiler, Sikka, Robinson
8	5/22	<i>Student Presentations</i> Extremes of Temperature; Heat Illness and Hypothermia	Students: Cho, Robinson, Dawadi Guest: Spector
9	5/29	<i>Student Presentations</i> Occupational Infectious Diseases Part III: Bloodborne Pathogens, Post-Exposure Prophylaxis, Vaccinations	Students: Sohng, Schladweiler, Kimball
10	6/5	<i>Guest Speaker / Discussion</i> Aerospace Medicine	Guest: Jones, Waring
	6/12	No class Finals Week	

Disability Resources for Students (DRS) offers resources and coordinates reasonable accommodations for students with disabilities. 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 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