ENV H 597A: Case Studies in Environmental & Occupational Health

Winter, 2020
1 credit, graded
Thursdays, 2:30-3:20 pm
South Campus Center (SOCC), Room 348

Instructor:

June Spector, Associate Professor
DEOHS and Medicine (General Internal Medicine)
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Office Hours: By appointment

Course Website: https://canvas.uw.edu/courses/1354926

Course Syllabus (PDF): ENV H 597_Syllabus_Appendix_2020.pdf

Course Description:

This course is offered during Autumn, Winter and Spring quarters of the academic year and is a requirement for University of Washington (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 this course, clinical cases encountered at the UW OEM Clinic at Harborview and other occupational and environmental medicine clinics in the community will be presented and discussed. This course focuses on evaluation and management of occupational and environmental injuries and illnesses in an interactive format with students and faculty. Emphasis is placed on evidence-based clinical decision-making through analysis of the scientific literature and critical clinical reasoning.

E-mail is the standard medium used for communication in 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 instructor if unable to use electronic media.
Course Learning Objectives:

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

1. Synthesize clinical and relevant exposure/hazard information and develop a differential diagnosis that includes both occupational/environmental and non-occupational/environmental conditions.
2. Apply a systematic and evidence-based approach to evaluating potentially occupationally- and environmentally-related injuries and illnesses and assessing fitness for duty.
3. Apply an evidence-based approach to managing occupational and environmental injuries and diseases.
4. Assess work-relatedness for potentially work-related injuries and illnesses.
5. Recommend appropriate occupational (and non-occupational) accommodations and restrictions for occupationally-related injuries and diseases.
6. Evaluate and manage patients, workers, and affected community members within the relevant occupational and environmental legal and regulatory frameworks.

Course Format:

Overview:

An occupational or environmental injury or disease case will be presented and discussed at each session ("main case presentation"). Supervising attending physicians and other faculty will reinforce pertinent teaching points. Each session will also include discussion of other current clinical cases that contribute to achievement of learning objectives.

Session Format:

~25 min: Main case presentation & discussion

~10 min: Review of teaching points via Q&A

~15 min: Discussion of other current clinical cases

Remote Participation:

In situations deemed by the instructors to be necessary, students may participate remotely using the ZOOM video conferencing platform (https://zoom.us/). Students requesting to participate remotely must request permission from the instructor at least one week prior to the class.

Scope of Cases:

Over the course of the quarter, cases that cover a broad range of occupational and environmental diseases and injuries will be discussed, as shown in the table below. Selection of cases is described in the section
### Occupational Diseases (by Organ System)
- Lung diseases
- Upper respiratory tract disorders
- Skin disorders
- Infections
- Cancer
- Hematologic disorders
- Cardiovascular disorders
- Liver disorders
- Renal disorders
- Neurological disorders
- Reproductive disorders
- Developmental disorders
- Musculoskeletal disorders

### Occupational Diseases (by Exposure Type)
- Metals
- Chemicals
- Solvents
- Gases and other airborne toxicants
- Pesticides

### Occupational Injuries
- Musculoskeletal injuries
- Eye injuries
- Injuries caused by physical hazards
- Noise
- Temperature
- Radiation (ionizing and nonionizing) & lasers
- Atmospheric conditions & extremes of pressure
- Vibration

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**Course Requirements:**

**‘Main’ case presentation:** At the start of the quarter, each student will sign up for approximately one to two sessions at which to orally present clinical cases. Two weeks prior to the assigned session, the student will email the instructor ideas for two or three potential clinical cases to present, including the attending that the student saw the patient with for Harborview OEM clinic cases. The student will work with the instructor to select one case to present. One week prior to the assigned session, the student will email the instructor case materials, including a post-case set of three key questions and answers (e.g. covering epidemiology, exposure-disease relationship, diagnosis, or management aspects of the case) to re-enforce teaching points, along with three scientific references supporting content in the case presentation and questions. References should include at least one primary source.

Presentations should include sections on the history of the present illness (including injury mechanism [if relevant] and exposures/controls); pertinent past medical history, family history, social history, and medications; occupational history; physical examination, clinical diagnostic data & (if relevant)
exposure/hazard data, differential diagnosis, management, work-relatedness and work restrictions (if relevant), and primary prevention considerations. The case presentation will be interactive, with the student integrating pauses and question probes between sections to engage other students and classroom participants. It is encouraged to simply present cases without using PowerPoint slides. PowerPoint slides may however be used to highlight information pertinent to the case e.g. images, results etc.

**Recommended Resources:**


**Student Evaluation:**

**Individual products (90%):** Main case presentations

**Other (10%):** Participation in discussion of Main clinical cases presented by others (e.g. contribution to discussion of potential options for assessment, differential diagnosis, and management) and description of at least one other case for the “other current clinical case discussion” section of each session.

Specific elements of individual products evaluated are:

- Advance review of case with instructor
- Clarity, organization, synthesis of information, and reasoning in oral presentation
- Review of injury mechanism/exposures/controls, occupational history, physical examination, clinical diagnostic data & (if relevant) exposure/hazard data, differential diagnosis, management, work-relatedness and work restrictions (if relevant), primary prevention considerations
- Scientific evidence for teaching points highlighted in post-case question set

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)

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

**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.

Course Summary:

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<thead>
<tr>
<th>Date</th>
<th>Details</th>
<th>Due Time</th>
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<tbody>
<tr>
<td>Thu Jan 9, 2020</td>
<td><a href="https://canvas.uw.edu/courses/1354926/assignments/5124941">Week 1: No class (Cascadia Conference)</a></td>
<td>2:30pm</td>
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<tr>
<td>Thu Jan 16, 2020</td>
<td><a href="https://canvas.uw.edu/courses/1354926/assignments/5124978">Week 2: Course overview &amp; trade secrets</a></td>
<td>2:30pm</td>
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<td>Thu Jan 23, 2020</td>
<td><a href="https://canvas.uw.edu/courses/1354926/assignments/5124981">Week 3: Case presentation &amp; discussion with Debbie Cherry</a></td>
<td>2:30pm</td>
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<td>Thu Jan 30, 2020</td>
<td><a href="https://canvas.uw.edu/courses/1354926/assignments/5124982">Week 4: Case presentation &amp; discussion</a></td>
<td>2:30pm</td>
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<td>Thu Feb 6, 2020</td>
<td><a href="https://canvas.uw.edu/courses/1354926/assignments/5124984">Week 5: Case presentation &amp; discussion</a></td>
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<td>Thu Feb 13, 2020</td>
<td><a href="https://canvas.uw.edu/courses/1354926/assignments/5124986">Week 6: Case presentation &amp; discussion</a></td>
<td>2:30pm</td>
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<td>Thu Feb 20, 2020</td>
<td><a href="https://canvas.uw.edu/courses/1354926/assignments/5124989">Week 7: Case presentation &amp; discussion with Cora Sack</a></td>
<td>2:30pm</td>
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<td>Thu Feb 27, 2020</td>
<td><a href="https://canvas.uw.edu/courses/1354926/assignments/5124991">Week 8: Case presentation &amp; discussion</a></td>
<td>2:30pm</td>
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<td>Thu Mar 5, 2020</td>
<td><a href="https://canvas.uw.edu/courses/1354926/assignments/5124995">Week 9: Case presentation &amp; discussion</a></td>
<td>2:30pm</td>
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<tr>
<td>Thu Mar 12, 2020</td>
<td><a href="https://canvas.uw.edu/courses/1354926/assignments/5124999">Week 10: Wrap-up &amp; thesis updates</a></td>
<td>2:30pm</td>
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