

School of Public Health

**PubH 6130****Occupational and Environmental Medicine: Principles and Practice  
Spring/2016**

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<b>Credits:</b>	<b>2 cr</b>
<b>Meeting days:</b>	<b>Wednesday</b>
<b>Meeting time:</b>	<b>5:00-7:00 p.m.</b>
<b>Meeting place:</b>	<b>East campus; Moos Tower 2-118</b>
<b>Instructors:</b>	<b>Mandel, Baker, Bovard</b>
<b>Office address:</b>	<b>Mayo Building, room 1240</b>
<b>Office phone:</b>	<b>612 626 9308</b>
<b>Office fax:</b>	<b>612 626 4837</b>
<b>e-mail:</b>	<b><a href="mailto:mand0125@umn.edu">mand0125@umn.edu</a></b>
<b>office hours:</b>	<b>contact by e-mail to set up appointment</b>

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**I. Course Description**

This course will familiarize students with the basic concepts and general information used in the practice of occupational/environmental medicine. This includes exposure-disease relationships, causal inference in occupational/environmental medicine and disease prevention. The course is designed for students majoring in Environmental Health Science in the general program or with a focus on occupational health. Students currently receiving financial support from the NIOSH Training Grant are expected to take this course. Experience in clinical medicine is not a prerequisite.

**II. Course Prerequisites**

Introductory epidemiology and biostatistics

Introductory exposure science and toxicology desired but not mandatory

**III. Course Goals and Objectives**

The main goal of PubH 6130 is for students to develop a basic understanding of occupational/environmental disease as it relates to chemical, environmental and physical hazards. Disease pathogenesis and disease prevention will be emphasized.

**IV. Methods of Instruction and Work Expectations**

Class instruction will rely on didactic lectures, class exercises, team exercises and class presentations. Generally, reading assignments accompany each one-hour lecture.

Homework assignments are made infrequently.

## V. Course Texts

LaDou, J. (Editor). Occupational and Environmental Medicine, 4<sup>th</sup> Edition, McGraw Hill, 2007

Rom W.N. and Markowitz S. Environmental and Occupational Medicine, 5<sup>th</sup> Edition, Little Brown, 2013

Miller G.W. The Exposome; A Primer. Elsevier Publications, 2014

(\*Weekly readings are posted the course's Moodle site)

## VI. Course Outline/Weekly Schedule

January 20	Course Overview	Mandel
	Diagnosis of Occupational/Environmental Disease	Mandel
January 27	Noise-Induced Hearing Loss	Baker
	Solvents	Baker
February 3	Reproductive Toxins	Baker
	Occupational dermatology	Baker
February 10	Low-back pain	Bovard
	Keeping injured workers at work	Bovard
February 17	Occupational cancer	Mandel
	(two hours)	
February 24	Pneumoconiosis	Mandel
	(two hours)	
March 2	Use of toxicology data in OEM	Roy
	(two hours)	
March 9	Indoor air pollution	Baker
	Occupational asthma	Baker
March 16	Spring Break	
March 23	Fitness in the workplace	Bovard
	Aging worker	Bovard
March 30	Industrial hygiene in OEM	Ramachandran
	Disease screening	Mandel
April 6	Metal toxicity	Baker
	Pesticide toxicity	Baker
April 13	Causal inference in occupational disease	Maldonado
	Case histories in occupational/environmental disease	Mandel
April 20	Health disparities in the workplace	McGovern
	Preparation for presentations	
April 27	Class presentations	Mandel, faculty
May 4	Class presentations	Mandel, faculty

## VII. Evaluation and Grading

Grading will be based on two homework assignments (20% each), attendance (10%) and class participation (10%). Another 50% of the grade will be from a final presentation made at the end of the semester. Quizzes may be used and, if so, will be done in combination with homework assignments. It is expected that students will not be absent, as the learning experience for this course depends on individual contributions. If you're not present, you obviously are not able to contribute. If you have an unavoidable absence, let me know as far in advance as possible. Assignment of grades will be S/N (satisfactory/non-satisfactory). For the grade of S, students will need the equivalent of a C grade ( $\geq 70\%$ ). All homework is due in advance of class on the assigned day.

### **Course Evaluation**

The course will have electronic evaluations through the SPH evaluation system. The system will send e-mail notifications to students when they can complete their course evaluations. For students who complete their course evaluations promptly, access to final grades will be given, as soon as the instructor renders the grade. All students will have access to their final grades two weeks after the last day of the semester, regardless of whether they completed their course evaluation. Student feedback on course content and faculty teaching skills are important means for improving our work. Please take the time to complete an evaluation for each of the courses for which you are registered.

### **Incomplete contracts**

A grade of "I" will be assigned at the discretion of the instructor when, due to extraordinary circumstances the student was prevented from completing the work of the course on time. The assignment of an "I" requires that a contract be initiated and completed by the student before the last day of class, and signed by both the student and instructor. If "I" is thought to be appropriate by the instructor, the student in consultation with the instructor, will specify the time and manner in which the student will complete course requirements. Extension for completion of the work will not exceed one year (or earlier if designated by the student's college). For more information, see [www.sph.umn.edu/grades](http://www.sph.umn.edu/grades) or a link to the policy can be found at: [onestop.umn.edu](http://onestop.umn.edu).

## **VIII. Other Course Information and Policies**

### Grade Option Change (if applicable)

For full-semester courses, students may change their grade option, if applicable, through the second week of the semester. Grade option change deadlines for other terms can be found at [onestop.umn.edu](http://onestop.umn.edu). Students wishing to withdraw from a course after the noted final deadline for a particular term must contact the SPH Student Services Center for further information.

### Student Conduct, Scholastic Dishonesty and Sexual Harassment Policies

Students are responsible for knowing the University of Minnesota, Board of Regents' policy on Student Conduct and Sexual Harassment found at [www.umn.edu/regents/polindex.html](http://www.umn.edu/regents/polindex.html).

Students are responsible for maintaining scholastic honesty in their work at all times. Students engaged in scholastic dishonesty will be penalized, and offenses will be reported to the Office of Student Academic integrity (OSAI, [www.osai.umn.edu](http://www.osai.umn.edu)).

The University's Student Conduct Code defines scholastic dishonesty as "plagiarizing; cheating on assignments or examinations; engaging in unauthorized collaboration on academic work; taking, or acquiring, or using test materials without faculty permission; submitting false or incomplete records of academic achievement; acting alone or in cooperation with another to falsify records or to obtain dishonestly grades, honors, awards, or professional endorsement; or altering, forging or misusing University academic record; or fabricating or falsifying of data, research procedures, or data analysis."

Plagiarism is an important element of this policy. It is defined as the presentation of another's writing or ideas as your own. Serious, intentional plagiarism will result in a grade of "F" or "N" for the entire course. For more information on this policy and for a helpful discussion of preventing plagiarism, please consult University policies and procedures regarding academic integrity: <http://writing.umn.edu/tww/plagiarism/>.

Students are urged to be careful that they properly attribute and cite others' work in their own writing. For guidelines for correctly citing sources, go to <http://tutorial.lib.umn.edu/> and click on "citing Sources".

In addition, original work is expected in this course. It is unacceptable to hand in assignments for a course for which you receive credit in another course unless by prior agreement with the instructor. Building on a line of work begun in another course or leading to a thesis, dissertation, or final project is acceptable.

#### Disability Statement

It is University policy to provide, on a flexible and individualized basis, reasonable accommodations to students who have a documented disability (e.g., physical, learning, psychiatric, vision, hearing, systemic conditions) that may impact their ability to participate in course activities. Students with disabilities are encouraged to contact Disability Services to have a confidential discussion of their individual needs for accommodations. Disability Services is located at Suite 180 McNamara Alumni Center, 200 Oak Street. Staff can be reached by calling 612 626 133.