HP 408 – ENVIRONMENTAL HEALTH IN THE COMMUNITY
(ENVIRONMENT'S IMPACTS IN EVERYDAY LIFE)
(SPRING SEMESTER, 2012)

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HP408 Lectures: Tuesday/Thursday, 11:00am to 12:20pm
VKC 158, University Park Campus
Office hours: Immediately following class or by appointment

Course Description
This course will help students develop a broad understanding of environmental health, using everyday life encounters as a platform for appreciating the scientific disciplines that define and document environmental exposure and the promotion of public health. We will evaluate exposure pathways (including air, water, soil, and food) and the potential for health hazards posed by a broad array of commonly-encountered exposures,. We will then use the knowledge gained to develop a framework in which to objectively assess relative risk. Case studies will be used to provide examples of various environmental issues of controversy and concern. Through class discussions, students will critically assess events and apply practical scientific skills to evaluate and address potential environmental health problems in their respective daily lives.

Social dimensions of environmental health -- including issues of environmental justice, regulation and policy development, the media, the role of interest groups, and how urban development can affect environmental health – will also be discussed. These issues will be explored to enhance student understanding of how environmental health issues permeate our everyday lives and the activities in our communities.

Class enrollment is limited to 30 students, with preferred previous coursework in chemistry, mathematics, and/or biological sciences. Course emphasis will be placed on classroom participation and student engagement in discussions, presentations, and investigations that illustrate environmental interactions encountered in everyday life.

Learning Objectives
1) Develop an understanding of the basic principles of epidemiology, toxicology, and exposure assessment, using examples from everyday life encounters;
2) Develop an understanding of challenges faced by individuals and community groups in evaluating exposure risks and developing solutions to environmental problems;
3) Become proficient in using library, electronic, and social media to research public health and environmental resources, to retrieve information on environmental health concerns, and to critically and objectively review the quality of presented materials;

4) Apply the science of environmental health to local concerns about environmental hazards in order to responsibly assess issues and propose solutions;
5) Be able to illustrate how interest groups, community perceptions of risk, the media, perceptions of environmental justice, and politics may influence the interpretation of environmental science and its incorporation into public health policy

Class Requirements and Format
Students will complete assigned readings for each class and come prepared to actively participate in wide-ranging discussions of topics developed in the preparatory materials. The class will be presented in live-lecture format by the course instructor, with occasional guest lecturers who will provide added expertise in specific topic areas. Students will share environmental-themed issues through regular presentations in each class meeting. In-class discussions will supplement the readings and relate textbook presentations to life activities. A presentation of approximately 60 minutes' length by the course instructor or guest lecturer will be preceded (or occasionally followed) with a 15-minute student presentation each class period. These student presentations will consist of several minutes of an environmental topic presentation, including a critical assessment of the issues raised by the topic and the potential impact on the affected community. This will be followed by a several-minute classroom discussion moderated by the student presenters. On the day of each presentation, student presenters will also be required to submit a written summary of their presentation (no longer than 2-3 pages, single-spaced, 12-point font, 1-inch margins) which will document their presentation and provide the references for it. Occasional quizzes on course material and review of homework assignments will also be a part of in-class activities.

Recommended readings, video clips, and supporting materials for each lecture topic are provided in the course lecture schedule, and will provide a background for instructors' course lectures. Additional materials may also be identified and/or distributed in class.

The HP408 course textbook will be Frumkin, Howard (Editor). *Environmental Health: From Global to Local* (Second Edition). ISBN 978-0-470-40487-4 (cloth). Jossey-Bass, A Wiley Imprint, Copyright 2010, John Wiley & Sons, Inc.

Attendance Policy: Students are expected to attend every class and stay for the duration of the class. Failure to attend class, arriving late or lack of active participation may impact the ability to achieve course objectives which could affect course grades.

University of Southern California policy permits students to be excused from class, without penalty, for the observance of religious holy days. This policy also covers scheduled final examinations which conflict with students' observance of a holy day. Students must make arrangements in advance to complete class work which will be missed, or to reschedule an examination, due to holy days observance. Please refer to *Scampus* on attendance policies. In consideration of classmates and the instructor, students are asked to keep external distractions that might interfere with class to a minimum.

Course Grades: Students' course performance will be evaluated on the basis of participation in classroom discussions [10% of course grade], in-class quizzes [10% of course grade], assigned homework exercises [10% of course grade], oral and written classroom presentations [20% of course grade], a midterm examination [25% of course grade], and a group-assigned class project [25% of course grade]. Students will work in sub-groups of three to four students to develop their respective semester class projects. Presentation of those completed projects will be the focus of in-class presentations in the final few weeks of the semester. Specific project format and details will be provided in class during the semester.

Final grades for the course will be based on the following scale:

A+	97-100	B+	87-89	C+	77-79	D	61-69
A	93-96	B	83-86	C	73-76	F	0-60
A-	90-92	B-	80-82	C-	70-72		

Please note that an A+ carries the same weight (4.0) as an A.

The Final Group Project will consist of a group presentation to the class of approximately 25 minutes' duration. Each group will consist of three to four students working collaboratively on a project. Presentation of a student-or-instructor-identified / instructor pre-approved topic of environmental health concern will be made using Powerpoint, video, social media, or some relevant audiovisual interactive activity. The class presentation will inform, educate, and engage classroom peers in the issues, status, affected populations, alternative solutions, and potential resolution of the identified environmental health challenge. In general, each project group presentation will include a literature review of available information to frame the matter being presented, a clear and concise presentation of the issue, an assessment about the size and/or nature of the affected population, a critical review of possible alternative responses, a recommendation for action, and an informed estimation of possible outcomes. The group presentation will be followed by a several-minute period for questions and answers from the class and instructor, to clarify presented issues and assess understanding of the topics covered. Each group's individual members will actively participate in the preparation and presentation of the project, and each individual will be graded based on the proportional merits of their contributions, as well as on the synergistic coherence of the combined group presentation.

Course Readings and Class Preparation Assignments will include assigned readings from the course text, additional specific readings from the worldwide web, and short videos from various websites. These will be provided in the Course Lesson Plan, which will be posted prior to the spring semester.

Late or Make-Up Work will be accepted if and only if an extension request has been made of the Instructor and that request has been approved. Otherwise, papers, homework and quizzes are due on the day and time specified. Extensions will be

granted only for extenuating circumstances. If the submission is late without permission, the grade will be affected.

Classroom Distractions detract from both the learning environment and from making the best use of limited class time together. Do not take class time to peruse the student newspaper or do homework from other classes. Cell phones/pagers/loud electronic devices should be turned off [or at a minimum, set to "vibrate] during class time.

Changes to the Course Lectures Plan may be necessary during the semester, based on the flow and progress of course activities, unforeseen, or extenuating circumstances. Every effort will be made to provide adequate advance notification if and as there are any changes made.

University Policy for Students with Disabilities includes a requirement to register each semester for academic accommodations based on a disability with Disability Services and Programs (DSP). A letter of verification for approved accommodations can be obtained from DSP. Please be sure the letter is delivered to the course instructor as early in the semester as possible. DSP is located in STU 301 and is open 8:30 a.m.–5:00 p.m., Monday through Friday. The phone number for DSP is (213) 740-0776.

Academic Integrity is a fundamental cornerstone of the university experience. General principles of academic honesty include the concept of respect for the intellectual property of others, the expectation that individual work will be submitted unless otherwise allowed by an instructor, and the obligations both to protect one's own academic work from misuse by others as well as to avoid using another's work as one's own. All students are expected to understand and abide by these principles. *Scampus,* the Student Guidebook, contains the Student Conduct Code in Section 11.00, while the recommended sanctions are located in Appendix A: http://scampus.usc.edu/1100-behavior-violating-university-standards-and-appropriate-sanctions/. Students will be referred to the Office of Student Judicial Affairs and Community Standards for further review, should there be any suspicion of academic dishonesty. The Review process can be found at: http://www.usc.edu/student-affairs/SJACS/.

Complaints or concerns about the course or the instructor can and should be aired, discussed, and resolved. Please discuss any concerns with the course instructor. If you feel that you cannot discuss it with the instructor, contact your advisor and/or the Associate Dean for Student Affairs for further guidance.

Course Lectures and Readings: (please see Table below)

Week	Class	Date	Topic	Speaker	Readings
1	1	10 Jan	Intro & Overview	Avol	Frumkin, Intro ppXXIX to LI; www.ted.com/talks/bill_davenhall_your_health_depends_on_where_you_live.html
	2	12 Jan	Exposure Pathways: How do you get exposed?	Avol	www.ncbi.nlm.nih.gov/pmc/articles/PMC1280352 www.atsdr.cdc.gov/hac/phamanual/ch6.html
2	3	17 Jan	Relative Risk: Is it safe out There?	Avol	Frumkin, Chap. 29, pp1038-1062;
	4	19 Jan	Susceptible Populations: Who's at risk?	Avol	Chap 8 Susceptible Populations in downloads at: http://cfpub.epa.gov/ncea/cfm/recordisplay.cfm?deid=216546 http://www.ted.com/talks/ben_goldacre_battling_bad_science.html
3	5	24 Jan	Water: Should you drink it?	Hricko	TBN
	6	26 Jan	Pesticides (Methyl Bromide)	Hricko	TBN
4	7	31 Jan	Outdoor Air Pollution	Avol	Frumkin Chap. 12, pp385-415 http://www.epa.gov/oar/airpollutants.html http://www.who.int/mediacentre/factsheets/fs313/en/index.html
	8	02 Feb	Indoor Air Pollution	Avol	http://www.epa.gov/iaq/ http://www.epa.gov/iaq/ia-intro.html
5	9	07 Feb	Food: Good, fast, or cheap?	Avol	Frumkin Chap. 18, pp635-688

	10	09 Feb	Consumer Products I: flame retardants, cleaners, sprays…	Avol	TBN
6	11	14 Feb	Consumer Products II: hair dyes	Wu	TBN
	2	16 Feb	Solid Waste, e-Waste…what a waste!	Avol	TBN
7	13	21 Feb	Soil Contamination & cleanups	Avol	TBN
	14	23 Feb	What up at USC? A Campus Environmental Assessment	Avol	TBN
8	15	28 Feb	Campus Assessment Presentations	Students	TBN
	16	01 Mar	Lessons from the past: mistakes and legacies	Avol	Frumkin Chap. 23, pp843-875
9	17	06 Mar	Project Assignments & Midterm Review	Avol	TBN
	18	08 Mar	MidTerm	Avol	(in-class testing)
10		13 Mar	SPRING BREAK		SPRING BREAK
		15 Mar	SPRING BREAK		SPRING BREAK
11	19	20 Mar	Climate Change	Avol	TBN

	20	22 Mar	Who's in charge? (where to seek help)	Avol	TBN
12	21	27 Mar	Goods Movement I: The Ports of LA and Long Beach	John Miller, San Pedro Homeowner TBN	www.storyofstuff.com/
	22	29 Mar	Goods Movement II; Rail in your own backyard	Angelo Logan, EastYards	TBN
13	23	03 Apr	Freeway expansions	Avol	TBN
	24	05 Apr	Cell phones, medical exams, and radiation	TBN	TBN
14	25	10 Apr	Light & Noise	TBN	TBN
	26	12 Apr	Legal Recourse for Communities & Individuals	Melissa Lin Perella, NRDC	TBN
15	27	17 Apr	Student project presentations	Students	Student presentations
	28	19 Apr	Student project presentations	Students	Student presentations
16	29	24 Apr	Student project presentations	Students	Student presentations
	30	26 Apr	Looking Back…& Ahead	Avol	TBN