ENVH 574 Probabilistic Exposure Assessment

Spring Quarter, 2015

Instructor:      John C. Kissel, Ph.D.

Professor, Dept. of Environmental & Occupational Health Sciences

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Office hours: To be arranged (drop-ins welcome except during hour immediately preceding class).

Class period: Lectures: MWF 12:30-1:20;

Location: Classroom A*, Health Science Library Info. Ctr. (3rd Floor) - note exceptions on calendar

*Crystal Ball™ is loaded on machines 2-10 (front two rows)

Description: Examination of mechanistic models used to predict human exposure to environmental contaminants. Emphasis on development and use of probabilistic, in contrast to deterministic, approaches. Comparison of model predictions with observed biomarkers of exposure. Supplemented with case studies related to environmental and occupational exposures.

Objectives: At the conclusion of the course students should be able to: recognize and interpret terminology used to quantitatively describe exposure to environmental contaminants; explain “compounded conservatism” and its significance in a regulatory context; conduct one- and two-dimensional stochastic simulations using Crystal Ball™ (and/or alternative software); present results from such simulations graphically; describe common pitfalls in probabilistic analyses; distinguish between true population variability and uncertainty due to ignorance; apply course lessons to analysis of original data.

Text: No text. Readings assigned from pertinent literature.

Grading: No tests. Grades based on a project (including oral presentation), homework and participation in lectures and labs.

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) <http://www.washington.edu/cssc/student-conduct-overview/student-code-of-conduct/>. We expect you to know and follow the university’s policies on cheating and plagiarism, and the SPH Academic Integrity Policy <http://sph.washington.edu/students/academicintegrity/>. 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 <http://www.washington.edu/cssc/ website>.

Academic Accommodations:

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 http://depts.washington.edu/uwdrs/

Course Summary:

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