

**ENVH 449**  
**Winter Quarter 2008**  
**Jane Koenig, [jkoenig@u](mailto:jkoenig@u).**  
**Karen Jansen, TA [kjansen@u](mailto:kjansen@u).**  
**M, W 10:30-11:20**  
**T474**

### **Learning goals**

You should learn

- 1) the major common outdoor and indoor air pollutants and their sources
- 2) estimated exposures of human populations
- 3) target organs of the effects of each pollutant
- 4) assessment tools for determining health effects of air pollution
- 5) pollutant-specific health effects and the relative risk of adverse effects
- 6) areas of uncertainty regarding associations between air pollution and health outcomes
- 7) International air pollution concerns

### **Expectations**

I expect students to read the assignments and the daily handout material. Each student (or student groups) will be asked to discuss (or lead the discussion) on material on the health effects or other aspects of air pollution. Each student should write up a one page description of the presentation.

The mid-term will be a short answer exam. I may assign a specific journal article and direct some questions to that article.

The final exam will be an in class exam. Most likely I will hand out 2-3 articles prior to the final and ask for a general critique of the articles plus ask some specific questions.

### **Grading system**

Oral discussion	10%
Written version of the presentation	10%
Class participation	10%
Mid Term Exam	30%
Final Exam	40%

### **Supplemental Text (On reserve)**

Bates and Caton. A Citizen's guide to air pollution. 2002  
Koenig Heath effects of air pollution, 1999

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Wednesday Jan 9	Introduction: Course requirements Historical Introduction: Description of common air pollutants
Friday Jan 11	Emissions, concentrations, exposure, concentration and dose
Wednesday Jan 16	Assessment tools to measure adverse effects
Friday Jan 18	Description of the most important studies
wednesday Jan 23	Description of the most important studies-2
Friday Jan 25	Data from animal toxicology and <i>in vitro</i> studies
Wednesday Jan 30	Data from human controlled studies
Friday Feb 1	Data from epidemiologic studies
Wednesday Feb 6	Epidemiologic studies-2
Friday Feb 8	Mid term
Wednesday Feb 13	Student presentation--SO <sub>2</sub>
Friday Feb 15	Student presentation--NO <sub>2</sub>
Wednesday Feb 20	Student presentation--O <sub>3</sub>
Friday Feb 22	Student presentation: Particulate matter:
Wednesday Feb 27	Climate change and air pollution
Friday Feb 29	Climate change 2
Wednesday Mar 5	Indoor air and health
Friday march 7	data from air pollution effects in developing countries
Wednesday Mar 12	Science/policy interactions
Friday Mar 14	wrap up