

**Department of Environmental Health Science  
College of Public Health  
University of Georgia**

**EHSC 4080/6080  
Environmental Air Quality  
Spring 2009 Syllabus**

**Course Information**

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**Course Meeting Time and Location**

Building: Miller Plant Science  
Room: 1501  
Day: Tue/Thu  
Time: 2-3:15 pm

**Textbooks and Other Required Course Material**

- World Health Organization. Air quality guidelines. Global update 2005. Particulate matter, ozone, nitrogen dioxide and sulfur dioxide. 2006, ix + 484 pages, ISBN 92 890 2192 6, CHF 100.00/US\$ 90.00
- Other lecture-specific readings will be made available for purchase, provided or put on Web CT.

**Course Description**

In this course students will learn the fundamentals of air pollution, from both a national and a global perspective. Areas of emphasis include the elements of air pollution, the effects of air pollution, measurement and monitoring of air pollution, and the meteorology and modeling of air pollution.

Case studies will be presented in class to reinforce the tools learned in lecture and the texts.

## **Course Learning Objectives**

Upon completion of this course, students will be able to:

- Identify and understand the sources and emissions of the main pollutants presented in the text and discuss their ambient concentrations in various parts of the world.
- Understand important concepts and methods concerning the quantification of human exposure to air pollution and the assessment of its effects on health, and to understand factors that determine individual susceptibility to air pollution.
- Understand the issue of environmental equity, and the unequal distribution of health risks due to air pollution both within and among nations.
- Understand methods for quantifying the health burden of air pollution that trigger policy reactions, and may be used to analyze the cost-effectiveness of various policy options.
- Understand the use of the material presented in the text in developing air quality standards and other policy tools.
- Understand indoor air pollution – especially on the conditions prevalent in developing countries owing to the indoor combustion of solid fuels.

## **Course Requirements for Grading Purposes**

- Group project – see attached description under “Grading Policy” and schedule on course schedule.
- All assignments above are due at the start of class on the day they are due – any assignments handed in after the start of class on the day they are due will be accepted at the Professor’s discretion if circumstances warrant, but will only receive a maximum of half credit.

## **Additional Course Responsibilities for Those Taking EHSC 6080**

Those students taking this course as EHSC 6080 will also:

- Have their exams and group project efforts graded on an EHSC 6080-specific curve that is totally separate from the EHSC 4080 student cohort.
- Have additional essay questions on the Final Exam.
- Serve as Team Leaders for the semester-long group project/presentation.
- Participate in several 1-hr weekly peer-review article discussion sessions, prepare and hand in a 2-pg critique of the article being reviewed for each weekly discussion session, and lead the discussion for the weekly discussion session for two of the sessions.

## **Topical Outline**

See attached

## **Grading Policy**

- Exams (each exam is worth 25% of overall grade) 75% of grade
- Group project/presentations 25% of grade
  - Each student will work in a group, but will submit THEIR OWN proposal (each section outlined below), not a photocopy of the group effort.
    - Introduction and Background – 3 pages, double space, not including references (due date on schedule) (5%)
    - Methods and General Approach – 3 pages, double space, not including references (due date on schedule) (5%)
    - Full Proposal – 5 pages, double space, not including references (due date on schedule) (10%)
    - Group Presentation (due date on schedule) (5%)

## **Make-Up Policy**

If, for a legitimate reason as judged by the Professor, a student misses an exam, a class that a homework is due on, or a class that another course assignment is due on, the student can reschedule a day and time with the Professor to make-up the exam, homework, or assignment.

## **Attendance Policy**

Attendance is expected.

## **University Honor Code and Academic Honesty Policy**

All academic work must meet the standards contained in “A Culture of Honesty.” Students are responsible for informing themselves about those standards before performing any academic work. The link to more detailed information about academic honesty can be found at: <http://www.uga.edu/ovpi/honesty/acadhon.htm>

## **Students with Disabilities**

Students with disabilities who require reasonable accommodations in order to participate in course activities or meet course requirements should contact the instructor or designate during regular office hours or by appointment.

## **General Disclaimers**

The course syllabus is a general plan for the course; deviations announced to the class by the instructor may be necessary.

EHSC 4080/6080: Environmental Air Quality Spring 2009 schedule (Tue/Thu 2-3:15 pm)			
DATE	TOPIC		READING
8-Jan	Thu	If you cannot breathe, nothing else matters...	select readings
13-Jan	Tue	Sources of air pollution	WHO Ch 1
15-Jan	Thu	Group projects - select groups, discuss topics	
20-Jan	Tue	Global ambient air pollution concentrations and trends	WHO Ch 2
22-Jan	Thu		select readings
27-Jan	Tue	Human exposure to air pollution	WHO Ch 3
29-Jan	Thu	Group projects - work on Introduction and Background - due by Mar 5	select readings
3-Feb	Tue	Global warming	select readings
5-Feb	Thu	<i>An Inconvenient Truth</i>	
10-Feb	Tue	Health effects of air pollution: an overview	WHO Ch 4
12-Feb	Thu		select readings
17-Feb	Tue	Ozone depletion	select readings
19-Feb	Thu	<b>Exam 1</b>	
24-Feb	Tue	Determinants of susceptibility	WHO Ch 5
26-Feb	Thu	Vulnerable populations in the developing world	select readings
3-Mar	Tue	Environmental equity	WHO Ch 6
5-Mar	Thu	Group projects - work on Methods and General Approach - due by Apr 9	
10-Mar	Tue	<b>Spring Break</b>	
12-Mar	Thu	<b>Spring Break</b>	
17-Mar	Tue	Health impact assessment	WHO Ch 7
19-Mar	Thu	Acid deposition	select readings
24-Mar	Tue	Application of guidelines in policy formulation	WHO Ch 8
26-Mar	Thu	US Clean Air Act	select readings
31-Mar	Tue	Indoor air quality	WHO Ch 9
2-Apr	Thu	Case study: Second hand smoke in outdoor settings	select readings
7-Apr	Tue	<b>Exam 2</b>	
9-Apr	Thu	Group projects - work on Overall Proposal and Oral Presentation - due by Apr 14	
14-Apr	Tue	Group project presentations	
16-Apr	Thu	Group project presentations	
21-Apr	Tue	Case study: indoor air pollution in the developing world	select readings
23-Apr	Thu	Case study: traffic-related air pollution in the developing world	select readings
28-Apr	Tue	Case study: Post-Katrina trailer/formaldehyde exposure and related health implications	
30-Apr	Thu	<b>NO CLASS - The University shall operate a Monday class schedule on Thu Apr 30</b>	
5-May	Tue	<b>Exam 3 - cumulative final exam</b>	