Credits: 2
Meeting Days: Wednesday and Friday
Meeting Time: 1:25 – 3:25 pm
Meeting Place: TBA
Instructor: William Toscano
Office Address: 1260 Mayo Building
Office Phone: 612-624-2967
Fax: 612-626-4837
E-mail: tosca001@umn.edu
Office Hours: Tuesday, Thursday 2-4:00 PM, or by appointment

I. Course Description
Principles of environmental health relating to macro- and microenvironments and to products consumed or used by people.

II. Course Prerequisites
None

III. Course Goals and Objectives
After completing this course, you will be able to
• Describe the action of the environment on human health;
• Identify potential environmental hazards;
• Distinguish between hazards and risks; and identify healthy environments.
• Describe the direct and indirect human, ecological and safety effects of major environmental and occupational agents,
• Describe genomic, physiological and psychosocial factors affecting health outcomes following exposure to environments,
• Describe federal and state regulatory programs, guidelines and authorities that control environmental health issues,
• Specify current risk assessment methods, specify approaches for assessing, preventing and controlling environmental hazards that pose risks to human health and safety,
• Explain general mechanisms of toxicity in eliciting a human health effect after exposure to environments,
• Discuss various risk management and risk communication approaches in relation to issues of environmental justice and equity,
• Develop a testable model of environmental insult

IV. Methods of Instruction and Work Expectations
Lecture, discussions, special projects

V. Course Text and Readings There is no required text. Sources information can be found on websites, textbooks, and journals.

Environmental Health Resources/Further Reading

WEBSITES

Some important websites containing environmental health information:
Environmental Protection Agency: http://www.epa.gov/
Centers for Disease Control: http://www.cdc.gov/
National Institute of Environmental Health Sciences: http://www.niehs.nih.gov/

JOURNALS:

Some general environmental health journals include:

Environmental Health (published by BioMed Central (online: http://www.ehjournal.net/)
Environmental Health Perspectives (EHP) (Published by the National Institute of Environmental Health Sciences, available free online: http://www.ehponline.org/
Environmental Science and Technology (Published by the American Chemical Society)
International Journal of Occupational and Environmental Health (http://www.ijoeh.com/)

Abstract: Epidemiologists and environmental health researchers have a joint responsibility to acquire scientific knowledge that matters to public health and to apply the knowledge gained in public health practice. We examine the nature and source of these social responsibilities, discuss a debate in the epidemiological literature on roles and responsibilities, and cite approaches to environmental justice as reflective of them. At one level, responsibility refers to accountability, as in being responsible for actions taken. A deeper meaning of responsibility corresponds to commitment to the pursuit and achievement of a valued end. Epidemiologists are committed to the scientific study of health and disease in human populations and to the application of scientific knowledge to improve the public's health. Responsibility is also closely linked to reliability. Responsible professionals reliably perform the tasks they set for themselves as well as the tasks society expects them to undertake. The defining axiom for our approach is that the health of the public is a social good we commit ourselves to pursue, thus assuming an obligation to contribute to its achievement. Epidemiologists cannot
claim to be committed to public health as a social good and not accept the responsibility of ensuring that the knowledge gained in their roles as scientists is used to achieve that good. The social responsibilities of environmental health researchers are conspicuous in the environmental justice movement, for example, in community-based participatory research. Responsibility is an ethical concept particularly well suited to frame many key aspects of the ethics of our profession.


**Abstract**: Many of the major human infectious diseases, including some now confined to humans and absent from animals, are 'new' ones that arose only after the origins of agriculture. Where did they come from? Why are they overwhelmingly of Old World origins? Here we show that answers to these questions are different for tropical and temperate diseases; for instance, in the relative importance of domestic animals and wild primates as sources. We identify five intermediate stages through which a pathogen exclusively infecting animals may become transformed into a pathogen exclusively infecting humans. We propose an initiative to resolve disputed origins of major diseases, and a global early warning system to monitor pathogens infecting individuals exposed to wild animals.
## VI. Course Outline/Weekly Schedule

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Reading Assignment</th>
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</thead>
<tbody>
<tr>
<td>Sept. 9</td>
<td>Environment and Health&lt;br&gt;Use of the Internet in Environmental Health&lt;br&gt;The Story of Stuff</td>
<td>EHP 111: 1804-1808 (2003)&lt;br&gt;Maxwell Ch 1</td>
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<tr>
<td>Sept. 11</td>
<td>Air, Water and Health</td>
<td>Maxwell, pp 105-116; Ch 7</td>
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<td>Sept. 23</td>
<td>Biowarfare: Disaster Preparedness</td>
<td>Film: Outbreak</td>
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<tr>
<td>Sept. 25</td>
<td>Biowarfare: Disaster Preparedness</td>
<td>Handout&lt;br&gt;Group Exercise</td>
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<td>Sept. 30</td>
<td>Occupational Health</td>
<td>Bruce Alexander</td>
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<td>Oct. 2</td>
<td>Surveillance as a tool in Environmental Health Risk Assessment and Management of Environmental Health Risks</td>
<td>Myron Falcon</td>
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<tr>
<td>Oct. 7</td>
<td>Endocrine Disruptors</td>
<td>McLachlan Review</td>
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<tr>
<td>Oct. 9</td>
<td>Student Presentations</td>
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<tr>
<td>Oct. 14</td>
<td>Nutrigenomics</td>
<td>Oehlke</td>
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<tr>
<td>Oct. 16</td>
<td>Air, Water, and Health</td>
<td>Simcik</td>
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<td>Oct. 21</td>
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<td>Oct. 23</td>
<td>Building Social Capital to Improve Collaboration: Capacity Building in Bangladesh Health Services</td>
<td>Kris Prenger, MD, MPH</td>
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<td>Oct. 28</td>
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**News of the Week Presentation Schedule:**
<table>
<thead>
<tr>
<th>Date of Presentation</th>
<th>Group Presenting</th>
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<tbody>
<tr>
<td>October 9</td>
<td>1 - 4</td>
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<tr>
<td>October 21</td>
<td>5 - 8</td>
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<tr>
<td>October 28</td>
<td>9 - 12</td>
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VII. Evaluation and Grading

Students will work in groups of 5. Presentations will be group presentations using PowerPoint or other graphics. There will be 1 examination. Homework Assignments are assumed to be individual efforts. The grade is dependent on:

1. Attendance is required; each un-excused absence will result in the loss of half-grade (e.g., A to A-).
2. Environmental Community Assessment: 50%.
3. Presentations 40%, Environmental Health in the news group presentation in class
4. Class participation, 10% participation in class discussions.

Scale: A = 92 - 100; A- = 88 - 91.5; B+ = 84 - 87.5; B = 80 - 83.5; B- = 76 - 79.5; C+ = 72 - 75.5;
C = 68 - 71.5; C- = 64 - 67.5; D+ = 60 - 63.5; D = 56 - 59.5; D- = 52 - 55.5; F = 51.5

Students taking the course S/N require a grade of C or above to pass the course.

Percentages are based on total performance on homework and assignments. Extra credit projects will not be accepted to improve a grade. The curve may be adjusted depending on the overall performance of the class.

*Academic dishonesty in any part of the academic work for this course is grounds for earning a grade of F or N for the entire course.*

Incomplete Grade

An incomplete grade is permitted only in cases of exceptional circumstances and following consultation with the instructor. In such cases an “I” grade will require a specific written agreement between the instructor and the student specifying the time and manner in which the student will complete the course requirements. Extension for completion of the work will not exceed one year.

University of Minnesota Uniform Grading and Transcript Policy

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 grad option, if applicable, through the second week of the semester. Grade option change deadlines for other terms (i.e. summer and half-semester) can be found at [onestop.umn.edu](http://onestop.umn.edu).
Course Withdrawal
Students should refer to the Refund and Drop/Add Deadlines for the particular term at onestop.umn.edu for information and deadlines for withdrawing from a course. As a courtesy, students should notify their instructor and, if applicable, advisor of their intent to withdraw.

Students wishing to withdraw from a course after the noted final deadline for a particular term must contact the School of Public Health Student Services Center at sph-ssc@umn.edu 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.

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).

The University’s Student Conduct Code defines scholastic dishonesty as “plagiarizing; cheating on assignments or examinations; engaging in unauthorized collaboration on academic work; taking, 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 a 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 this 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.

If you have any questions, consult the instructor.

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, or systemic) that may affect their ability to participate in course activities or to meet course requirements. Students with disabilities are encouraged to contact Disability Services to have a confidential discussion of their individual needs for accommodations. Disability Services is located in Suite 180 McNamara Alumni Center, 200 Oak Street. Staff can be reached by calling 612/626-1333 (voice or TTY).