

PubH 6182-001 – Emerging Infectious Disease: Current Issues, Policies, and Controversies**Spring 2009**

Credits: 3
Meeting Days: Mondays
Meeting Time: 10:10 am. to 1:10 p.m.
Meeting Place: Section 001, Mondays 10:10-1:10 p.m.
Location: Weaver-Densford Hall 2-110/140
and online at <http://webct.umn.edu>

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I. Course Description

Today, the epidemiology of infectious diseases on a worldwide basis is growing increasingly complex with the many emerging social, political, economic and demographic changes in our population, as well as dynamic changes in animal and vector populations and the environment. As a result, the rapidly growing problem of emerging infections, including pandemic influenza, global climate change, bioterrorism, HIV/AIDS, antibiotic resistance and foodborne diseases, requires new and creative means for prevention and control. However, since the incidence of disease is related to many of the above-mentioned factors, activities to reduce their occurrence are often complex and controversial. This course will review a series of current issues and controversies in the prevention and control of infectious diseases. It will also serve as a forum for students to debate the merits of these issues and controversies. Finally, we will develop a framework for considering realistic and innovative solutions to these problems. Some of the issues and controversies that will be covered include pandemic influenza and bioterrorism preparedness, global climate change and the impact on infectious disease and public health preparedness, control of HIV and tuberculosis in the absence of effective vaccines, public health infrastructure and the response to public health emergencies, antibiotic resistance, the use and availability of vaccines, vector-borne disease control, food irradiation, food biosecurity, the reality of infectious disease eradication, and international health resources.

The course will use a combination of lecture and discussion format to encourage broad participation. Each session will be introduced by lectures from Professor Osterholm that will serve as a point of reference for class discussion. Students will be asked to summarize and critique assigned readings, and to bring information from their own reading to class discussion.

II. Course Prerequisites

Public Health or Medicine or Dentistry or Pharmacy or Nursing or Vet Med student and instructor consent

III. Course Goals and Objectives

As a result of this course, students will be able to:

1. Demonstrate a critical understanding of selected current issues and controversies surrounding the prevention and control of infectious diseases;
2. Describe how current elected and policy leaders, public health officials and other involved parties have responded to the prevention and control aspects of these issues and controversies;
3. Develop approaches to reviewing and responding to current controversies that provide society with reliable and cost effective prevention and control response options.

IV. Methods of Instruction and Work Expectations

Lecture and discussion.

V. Course Text and Readings

Emphasis will be placed on the use of internet-based resources, including current news articles and government-generated documents. Also, students will have access to extensive resources on the Center for Infectious Disease Research and Policy (CIDRAP) Web site (www.cidrap.umn.edu).

We will be using two textbooks for the class; students are expected to read *Microbial Threats to Health: Emergence, Detection, and Response* before the first day of class.

Microbial Threats to Health: Emergence, Detection, and Response. Institute of Medicine, National Academy of Sciences, 2003.

Plan B 3.0, Mobilizing to Save Civilization, Lester R. Brown. 2008. W.W. Norton & Company.

Other handouts will be provided by the instructor on the course website.

VI. Course Outline/Weekly Schedule

Attendance: This is a discussion-based class and attendance is required. If you are not able to attend a lecture, please contact the instructor. Readings will be posted online at <http://webct.umn.edu> prior to each class; students should come prepared to discuss the topic of the day.

Weekly Assignment: Following each class, students will be given a short weekly assignment. The assignments will vary from week to week. For all weeks students shall bring an article related to emerging infectious diseases from a newspaper, magazine or other media source. Students shall write a brief summary of the importance or meaning of the article. Throughout the semester students are strongly encouraged to follow the news and literature on infectious diseases.

Midterm Paper due March 9, 2009: 4 pages double-spaced, 12-point font. Topic: Students will be asked to discuss a topic presented in the first half of the course. Details will be provided in class.

Final Paper due May 4, 2009: 8 pages double-spaced, 12-point font. Topic: Students will write a position paper discussing a public health issue addressed in the course. Details will be provided in class.

Note: - Weekly reading assignments will be given the week before in class as discussion will be about current news and journal articles, etc., All information will be available online with no additional expense incurred by students.

Week 1, January 19, 2009 –

NO CLASS- HOLIDAY

Week 2, January 26, 2009

Course Overview: Emerging infectious disease model for the 21st century.

Week 3, February 2, 2009

Pandemic influenza: A review of the impact of previous influenza pandemics and consideration of our current level of preparedness for a future pandemic.

Week 4, February 9, 2009

Pandemic Influenza, Continued

Week 5, February 16, 2009 – **NOTE: DR. CRAIG HEDBERG TEACHING CLASS THIS WEEK**

Foodborne diseases, Current status, health implications and prevention and food Biosecurity.

Week 6, February 23, 2009

Global climate change and infectious diseases

Week 7, March 2, 2009

World population growth, poverty, & infectious disease

Week 8, March 9, 2009- MIDTERM PAPER DUE

Water availability, sanitation, and disease: History and status of water-borne diseases and issues across the globe, local and national interests and future water-borne infectious disease issues.

Week 9, March 16, 2009

NO CLASS (SPRING BREAK)

Week 10, March 23, 2009

Vector-borne disease: History and status of global vector borne diseases, domestic disease concerns including West Nile virus, tick-borne diseases and future vector-borne infectious disease issues.

Week 11, March 30, 2009

HIV/AIDS: A review of the changing natural history of infection and disease in both the developed and developing worlds, as well as our international response to prevention.

Week 12, April 6, 2009

Tuberculosis: A review of a new and re-emerging threat to global health and the implications of growing immunocompromised populations.

Week 13, April 13, 2009

Bioterrorism: Overview and current health preparedness capabilities implications of current vaccine recommendations. Smallpox & Polio: Eradication programs and the reality of infectious disease eradication in our modern world.

Week 14, April 20, 2009

Vaccines and anti-infectives: An overview of their role in public health practice and clinical medicine, as well as current controversies regarding product research and development and availability.

Week 15, April 27, 2009

Media and infectious diseases: The public and policy makers' perceptions of infectious disease based on books, newspapers, magazines and television. "How do we tell the story?"

Week 16, May 4, 2009 - FINAL PAPER DUE

Class review and final discussion.

VII. Evaluation and Grading

1. Grading Criteria – Students will be evaluated on weekly written assignments (15%), a midterm paper (30%) and a final paper (55%). Weekly assignments will be graded S/N with full credit given for completion of all weekly entries. Details will be provided in class.

Inquiries regarding any changes of grade should be directed to the instructor of the course; you may wish to contact the Student Dispute Resolution Center (SDRC) in 107 Eddy Hall (612-625-5900) for assistance.

Students are responsible for all information disseminated in class and all course requirements, including deadlines and examinations.

A student is not permitted to submit extra work in an attempt to raise his or her grade, unless the instructor has specified at the outset of the class such opportunities will be afforded to all students.

2. Grading Option – Both A-F and S-N grading options are available. The S grade does not carry points but the credits will count toward completion of the student's degree program. S/N option must complete all assignments to a C level. Students may change grading options during the initial registration period or during the first two weeks of the semester. **The grading option may not be changed after the second week of the term.**

3. Course Withdrawal – School of Public Health students may withdraw from the course through the February 2, 2009, without permission. No "W" will appear on the transcript. After February 2, 2009, students are required to do the following:

1. The student must contact and notify their advisor and course instructor informing them of the decision to withdraw from the course.
2. The student must send an e-mail to the SPH Student Services Center (SSC). The e-mail must provide the student name, ID#, course number, section number, semester and year with instructions to withdraw from the course, and acknowledgment that the instructor and advisor have been contacted.
3. The advisor and instructor must email the SSC acknowledging the student is canceling the course. All parties must be notified of the student's intent.
4. The SSC will complete the process by withdrawing the student from the course after receiving all e-mails (student, advisor and instructor). A "W" will be placed and remain on the student transcript for the course.

After discussion with their advisor and notification to the instructor, students may withdraw up until the eighth week of the semester. There is no appeal process.

Incomplete Grade

A grade of incomplete "I" shall be assigned at the discretion of the instructor when, due to extraordinary circumstances, the student was prevented from completing the work of the course on time. The assignment of an incomplete requires a written agreement between the instructor and student specifying the time and manner in which the student will complete the course requirements. In no event may any such written agreement allow a period of longer than one year to complete the course requirements.

University of Minnesota Uniform Grading and Transcript Policy

A link to the policy can be found at 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.

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).