

PubH 7200 Section 103 Class #88349
Minimizing Transmission of Infectious Diseases during Outbreaks
Protecting You, Your Staff and Work Force
May Term 2016

Credits: 1

Meeting Days/Time: May 23 9:00am -12:00pm
May 24, 25 & 27 8:00am -12:00pm

Meeting Place: Blegen Hall – Room 230

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Center for Animal Health and Food Safety
Professor, College of Veterinary Medicine
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Office Hours: By Appointment

I. Course Description

Recent outbreaks of Ebola and Highly Pathogenic Avian Influenza highlight the need to have a trained work force familiar with principles to protect workers and those involved in the response. This includes preventing workers from transmitting the disease to others or to other premises. Participants will review case studies documenting potential spread of infectious agents and discuss which personal protective equipment would be indicated in a variety of field settings (focusing on field and agricultural exposure settings). This course would provide a practical opportunity to become familiar with disinfection principles including field disinfection and the use of different personal protective equipment (PPE) materials. By the end of the class students should feel comfortable with using various forms of PPE, know deficiencies, and be able to provide practical recommendations for daily situations. This course is intended for public health, health care professionals, veterinarians, and agricultural industry professionals.

Competencies

The core competencies in Public Health Preparedness and Response identified in the CDC planning model that apply to this course include:

Domain 1: Model Leadership

1.4 Maintain situational awareness

Domain 4: Protect Worker Health & Safety

4.2 Employ protective behaviors according to changing conditions, personal limitations and threats

The core competencies for public health professionals are a consensus set of skills identified by the Council on Linkages (CoL) between academia and public health practice as being desirable for the delivery of the essential public health services. The CoL competencies identified for this course are:

Public Health Sciences Skills:

6.2.3 Applies public health sciences (e.g., biostatistics, epidemiology, environmental health sciences, health services administration, social and behavioral sciences, and public health informatics) in the delivery of the 10 Essential Public Health Services

6.2.5 Retrieves evidence (e.g., research findings, case reports, community surveys) from print and electronic sources (e.g., PubMed, *Journal of Public Health Management and Practice*, *Morbidity and Mortality Weekly Report*, *The World Health Report*) to support decision making

II. Course Prerequisites

A basic understanding of infectious disease transmission principles is helpful.

III. Course Goals and Objectives

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

- Be aware of various disease transmission scenarios where a contaminated environment compromises human and animal health
- Provide recommendations for appropriate disinfection and cleaning in various field and agricultural settings
- Identify situations when the use of personal protective equipment is appropriate
- Select the personal protective equipment and/or respiratory protection needed to protect against an exposure

IV. Methods of Instruction and Work Expectations

This course combines lectures with group exercises and experiential learning. This course is offered S/N. Students will be expected to spend about 1 hour each day reading assigned materials or reviewing pertinent materials and/or working on a group project.

Groups of 3 to 4 students will be assigned to address and provide recommendations related to a chosen topic area relating to providing recommendations to prevent transmission in field settings (i.e. Interviewing Ebola exposed contacts; outbreak response to Q-fever outbreak on a farm) (50 points total).

Groups and topics will be chosen/assigned the week prior to the beginning of class.

Each group will make a 30 minute presentation during their assigned class period on their topic. A copy of the PowerPoint presentation should be provided to the instructors. The presentation should be well-researched and informative and presented within the 30 minute time constraint. The instructors will evaluate content, delivery, and references. Please provide references on the same slide for ease of linkage for the audience. (30 points)

Each group will provide a one-page informational hand-out that will be due during the final class on May 27. (15 points)

Each student should submit one multiple choice or short answer question from their assigned topic to be used in the final quiz. These questions should be submitted to the instructors on May 26. (5 points)

Topics are intentionally broad, and it is up to the group to focus their presentation on key areas within the assigned topic. You are welcome to engage community experts in preparing for your presentation/recommendations.

The goal of these assignments is to help broaden student perceptions, practice devising recommendations and presenting key information to lay audiences.

Conciseness, neatness and clarity of work are important.

Two in-class exercises will be conducted for this course. The first will allow students to be fit tested with respiratory protection. The second will focus on doffing and donning PPE. Participation and group assessment of these exercises will be done (in a fun and disarming manner – we all make mistakes). (10 points)

One quiz will be administered on-line at the end of the course to assess student understanding of topic areas. The quiz must be completed by 12 noon on June 1. (20 points)

Grades will be assigned for classroom participation. (20 points total)

Students will be able to obtain full credit for classroom participation by asking questions, participating in discussions and hands-on activities, and submitting one-minute "essays" requested periodically by the instructor. (15 points)

Students will also provide an assessment of group presentations.(5 points)

V. Course Text and Readings

Course materials are available through websites and provided text materials.

1. NIOSH and Workplace Safety and Health Topics – Avian Influenza
<http://www.cdc.gov/niosh/topics/avianflu/default.html>
2. NIOSH and Workplace Safety and Health Topics – Ebola
<http://www.cdc.gov/niosh/topics/ebola/default.html>
3. Sterilization and Disinfection http://www.cdc.gov/hicpac/pdf/guidelines/Disinfection_Nov_2008.pdf
4. OSHA and Personal Protective Equipment <https://www.osha.gov/SLTC/personalprotectiveequipment/>
5. Traverse M, Aceto H. Environmental cleaning and disinfection. *Vet Clin North Am Small Anim Pract.* 2015;45(2):299-330, vi. doi: 10.1016/j.cvsm.2014.11.011 [doi].

The required and optional readings are available through the UMN Library, which can be accessed through the course Moodle site.

Access Course Moodle Site

- go to www.umn.edu click on the “myU” button
- login with your University ID and password
- scroll to your course and click on the Moodle site link

VI. Course Outline/Weekly Schedule/

	Daily Schedule	
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Pre-Course		
Day 1	Basics of disease transmission Review of case-studies Review group exercise assignments	Bender
Day 2	Disinfection/decontamination Practical PPE Field disinfection of trucks Time for Group Exercise	Bender/Sheridan Patterson
Day 3	Air protection equipment Respiratory protection for specific hazards Fit testing Time for Group Exercise	Carolyn Sheridan
Day 4	Group presentations Review/Debrief	Group presentations of case specific scenarios and recommended precautions

VII. Evaluation and Grading

This course is offered S/N

- **S Represents achievement that is satisfactory, which is equivalent to a C- (70%) or better.**

Individuals and groups will be assessed by the following assignments/activities.

Assignment	Percent
Group Presentation	
• Presentation	30
• Hand-out	15
• Quiz Question	5
In-class exercises	10
Quiz	20
Class Participation	
• Daily participation	15
• Peer Evaluation	5
Total	100

Group study presentations should be well-researched and informative and presented within the 20-30 minute time constraint. Students are encouraged to include supplemental information (i.e. consult resources outside of the case study materials such as text or existing literature). PowerPoint slides are to be turned into the instructors or teaching assistant on the last day of class. The instructor will evaluate content, delivery, and references. Please provide references on the same slide for ease of linkage for the audience. Classmates will also evaluate content, delivery, and engagement of each group.

Making up assignments including the quiz will only be allowed with prior approval of the instructor. Late or missing assignments will be reduced by 5 points per day unless prior arrangements are made.

For additional information, please refer to:

<http://policy.umn.edu/Policies/Education/Education/GRADINGTRANSCRIPTS.html>.

Course Evaluation

The SPH will collect student course evaluations electronically using a software system called CourseEval: www.sph.umn.edu/courseeval. The system will send email notifications to students when they can access and complete their course evaluations. Students who complete their course evaluations promptly will be able to access their final grades just as soon as the faculty member renders the grade in SPHGrades: www.sph.umn.edu/grades. All students will have access to their final grades through OneStop two weeks after the last day of the semester regardless of whether they completed their course evaluation or not. Student feedback on course content and faculty teaching skills are an important means for improving our work. Please take the time to complete a course evaluation for each of the courses for which you are registered.

Incomplete Contracts

A grade of incomplete "I" shall be assigned at the discretion of the instructor when, due to extraordinary circumstances (e.g., documented illness or hospitalization, death in family, etc.), the student was prevented from completing the work of the course on time. The assignment of an "I" requires that a contract be initiated and completed by the student before the last official day of class, and signed by both the student and instructor. If an incomplete is deemed appropriate by the instructor, the student in consultation with the instructor, will specify the time and manner in which the student will complete course requirements. Extension for completion of the work will not exceed one year (or earlier if designated by the student's college). For more information and to initiate an incomplete contract, students should go to SPHGrades at: www.sph.umn.edu/grades.

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 grade option, if applicable, through the second week of the semester. Grade option change deadlines for other terms (i.e. summer and half-semester courses) can be found at onestop.umn.edu. **The grading option for Public Health Institute courses may not be changed after the second day of class for 4-day courses. Grading options for 2 day courses may not be changed after the first day class.**

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 Office of Admissions and Student Resources at sph-ssc@umn.edu for further information.

WITHDRAWAL POLICY FOR PUBLIC HEALTH INSTITUTE COURSES

School of Public Health students may withdraw from a 4-day course **through the second day of class** without permission and no "W" will appear on the transcript. Students enrolled in 2-day courses may withdraw only through the first day of class. **After these withdrawal deadlines pass** students are required to do the following.

- The student must contact and notify their advisor and course instructor informing them of the decision to withdraw from the course.
- The student must send an e-mail to the SPH Student Services Center (SSC) at sph-ssc@umn.edu. The email must provide the student name, ID#, course number, section number, semester, and year with instructions to withdraw the student from the course, and acknowledgement that the instructor and advisor have been contacted.
- 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.

- The SSC will complete the process by withdrawing the student from the course after receiving all emails (student, advisor, and instructor). A "W" will be placed and remain on the student transcript for the course.

Student Conduct Code

The University seeks an environment that promotes academic achievement and integrity, that is protective of free inquiry, and that serves the educational mission of the University. Similarly, the University seeks a community that is free from violence, threats, and intimidation; that is respectful of the rights, opportunities, and welfare of students, faculty, staff, and guests of the University; and that does not threaten the physical or mental health or safety of members of the University community.

As a student at the University you are expected adhere to Board of Regents Policy: *Student Conduct Code*. To review the Student Conduct Code, please see:

http://regents.umn.edu/sites/default/files/policies/Student_Conduct_Code.pdf.

Note that the conduct code specifically addresses disruptive classroom conduct, which means "engaging in behavior that substantially or repeatedly interrupts either the instructor's ability to teach or student learning. The classroom extends to any setting where a student is engaged in work toward academic credit or satisfaction of program-based requirements or related activities."

Use of Personal Electronic Devices in the Classroom

Using personal electronic devices in the classroom setting can hinder instruction and learning, not only for the student using the device but also for other students in the class. To this end, the University establishes the right of each faculty member to determine if and how personal electronic devices are allowed to be used in the classroom. For complete information, please reference:

<http://policy.umn.edu/Policies/Education/Education/STUDENTRESP.html>.

Scholastic Dishonesty

You are expected to do your own academic work and cite sources as necessary. Failing to do so is scholastic dishonesty. Scholastic dishonesty means 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; altering, forging, or misusing a University academic record; or fabricating or falsifying data, research procedures, or data analysis. (Student Conduct Code:

http://regents.umn.edu/sites/default/files/policies/Student_Conduct_Code.pdf) If it is determined that a student has cheated, he or she may be given an "F" or an "N" for the course, and may face additional sanctions from the University. For additional information, please see:

<http://policy.umn.edu/Policies/Education/Education/INSTRUCTORRESP.html>.

The Office for Student Conduct and Academic Integrity has compiled a useful list of Frequently Asked Questions pertaining to scholastic dishonesty: <http://www1.umn.edu/oscai/integrity/student/index.html>. If you have additional questions, please clarify with your instructor for the course. Your instructor can respond to your specific questions regarding what would constitute scholastic dishonesty in the context of a particular class-e.g., whether collaboration on assignments is permitted, requirements and methods for citing sources, if electronic aids are permitted or prohibited during an exam.

Makeup Work for Legitimate Absences

Students will not be penalized for absence during the semester due to unavoidable or legitimate circumstances. Such circumstances include verified illness, participation in intercollegiate athletic events, subpoenas, jury duty, military service, bereavement, and religious observances. Such circumstances do not include voting in local, state, or national elections. For complete information, please see:

<http://policy.umn.edu/Policies/Education/Education/MAKEUPWORK.html>.

Appropriate Student Use of Class Notes and Course Materials

Taking notes is a means of recording information but more importantly of personally absorbing and integrating the educational experience. However, broadly disseminating class notes beyond the classroom community or accepting compensation for taking and distributing classroom notes undermines instructor interests in their intellectual work product while not substantially furthering instructor and student interests in effective learning. Such actions violate shared norms and standards of the academic community. For additional information, please see: <http://policy.umn.edu/Policies/Education/Education/STUDENTRESP.html>.

Sexual Harassment

"Sexual harassment" means unwelcome sexual advances, requests for sexual favors, and/or other verbal or physical conduct of a sexual nature. Such conduct has the purpose or effect of unreasonably interfering with an individual's work or academic performance or creating an intimidating, hostile, or offensive working or academic environment in any University activity or program. Such behavior is not acceptable in the University setting. For additional information, please consult Board of Regents Policy: <http://regents.umn.edu/sites/default/files/policies/SexHarassment.pdf>

Equity, Diversity, Equal Opportunity, and Affirmative Action

The University will provide equal access to and opportunity in its programs and facilities, without regard to race, color, creed, religion, national origin, gender, age, marital status, disability, public assistance status, veteran status, sexual orientation, gender identity, or gender expression. For more information, please consult Board of Regents Policy: http://regents.umn.edu/sites/default/files/policies/Equity_Diversity_EO_AA.pdf.

Disability Accommodations

The University of Minnesota is committed to providing equitable access to learning opportunities for all students. Disability Services (DS) is the campus office that collaborates with students who have disabilities to provide and/or arrange reasonable accommodations.

If you have, or think you may have, a disability (e.g., mental health, attentional, learning, chronic health, sensory, or physical), please contact DS at 612-626-1333 to arrange a confidential discussion regarding equitable access and reasonable accommodations.

If you are registered with DS and have a current letter requesting reasonable accommodations, please contact your instructor as early in the semester as possible to discuss how the accommodations will be applied in the course.

For more information, please see the DS website, <https://diversity.umn.edu/disability/>.

Mental Health and Stress Management

As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance and may reduce your ability to participate in daily activities. University of Minnesota services are available to assist you. You can learn more about the broad range of confidential mental health services available on campus via the Student Mental Health Website: <http://www.mentalhealth.umn.edu>.

The Office of Student Affairs at the University of Minnesota

The Office for Student Affairs provides services, programs, and facilities that advance student success, inspire students to make life-long positive contributions to society, promote an inclusive environment, and enrich the University of Minnesota community.

Units within the Office for Student Affairs include, the Aurora Center for Advocacy & Education, Boynton Health Service, Central Career Initiatives (CCE, CDes, CFANS), Leadership Education and Development – Undergraduate Programs (LEAD-UP), the Office for Fraternity and Sorority Life, the Office for Student Conduct and Academic Integrity, the Office for Student Engagement, the Parent Program, Recreational Sports, Student and Community Relations, the Student Conflict Resolution Center, the Student Parent HELP

Center, Student Unions & Activities, University Counseling & Consulting Services, and University Student Legal Service.

For more information, please see the Office of Student Affairs at <http://www.osa.umn.edu/index.html>.

Academic Freedom and Responsibility: for courses that do not involve students in research

Academic freedom is a cornerstone of the University. Within the scope and content of the course as defined by the instructor, it includes the freedom to discuss relevant matters in the classroom. Along with this freedom comes responsibility. Students are encouraged to develop the capacity for critical judgment and to engage in a sustained and independent search for truth. Students are free to take reasoned exception to the views offered in any course of study and to reserve judgment about matters of opinion, but they are responsible for learning the content of any course of study for which they are enrolled.*

Reports of concerns about academic freedom are taken seriously, and there are individuals and offices available for help. Contact the instructor, the Department Chair, your adviser, the associate dean of the college, or the Vice Provost for Faculty and Academic Affairs in the Office of the Provost.

OR:

Academic Freedom and Responsibility, for courses that involve students in research

Academic freedom is a cornerstone of the University. Within the scope and content of the course as defined by the instructor, it includes the freedom to discuss relevant matters in the classroom and conduct relevant research. Along with this freedom comes responsibility. Students are encouraged to develop the capacity for critical judgment and to engage in a sustained and independent search for truth. Students are free to take reasoned exception to the views offered in any course of study and to reserve judgment about matters of opinion, but they are responsible for learning the content of any course of study for which they are enrolled.* When conducting research, pertinent institutional approvals must be obtained and the research must be consistent with University policies.

Reports of concerns about academic freedom are taken seriously, and there are individuals and offices available for help. Contact the instructor, the Department Chair, your adviser, the associate dean of the college, or the Vice Provost for Faculty and Academic Affairs in the Office of the Provost.

* Language adapted from the American Association of University Professors "Joint Statement on Rights and Freedoms of Students".

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