

PubH 7230 Section 102 Class #93736**Topics in Infectious Disease:****International Initiatives in Neglected Zoonotic Disease Control****May Session 2009**

Credits:	1 Credit	
Meeting Days/Time:	May 26, 27, 28	1 p.m.-5 p.m.
	May 29	1 p.m.-4 p.m.
Meeting Place:	Blegen Hall 240	
Instructor:	Malika Kachani, PhD, DVM Professor of Parasitology Western University of Health Sciences	
	Ashley Robinson, BVSc, MPH, PhD Professor Emeritus, Veterinary Medicine Western University of Health Sciences	
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Office Hours:	By appointment	

I. Course Description

This course is designed to provide an understanding of the basic epidemiological features of the major neglected zoonotic diseases (NZDs). Students will review these diseases (which include rabies, brucellosis, cystic echinococcosis, bovine tuberculosis, anthrax, cysticercosis and African trypanosomiasis) and their impact on communities in developing countries in terms of burden of disease, poverty and food insecurity. They will understand the role of the major International Agencies such as World Health Organization (WHO), Food and Agriculture Organization (FAO), Office International des Epizooties (OIE), International Fund for Agricultural Development (IFAD) and their associated agencies as well as some major non-governmental organizations (NGO's). Major limiting technical, logistical and social factors for NZDs will be reviewed. The concept of "One Health" whereby interdisciplinary cooperation of multiple human and animal health organizations is encouraged to coordinate efforts to control and prevent these diseases will be discussed. Students will apply their acquired knowledge to design a program to control/prevent a NZD in a developing country and compare with the situation in the USA.

II. Course Prerequisites

A basic course in Epidemiology is highly recommended.

III. Course Goals and Objectives

Goals:

The goal of this course is to educate the students on NZDs so that they understand their impact on people and animals and the challenges they present to national and international organizations in terms of control, prevention and poverty alleviation. The students will:

1. Learn the basic Epidemiology including surveillance, population risk factors and potential for successful control and prevention of selected NZDs at the global and local levels.
2. Understand the role of various international Health Organizations in NZDs control in developing countries.
3. Apply the concept of 'One Health' to promote the cooperation of international, national, regional, and local agencies in NZDs control and prevention.

Learning objectives:

Students completing this course will:

1. Become familiar with major zoonotic diseases (both neglected and reemerging) and neglected zoonotic diseases (NZDs) of global concern.
2. Appreciate the impact of major NZDs on agriculture, animal health, public health and livelihood at a regional, national, and international level.
3. Understand the role of national and international health organizations and government and non government organizations in disease control and prevention.
4. Understand the relevance of knowledge, attitudes and practices (KAP) studies in control/prevention programs.
5. Develop skills in using the materials, tools and technologies to control NZDs.
6. Will apply the acquired concepts and knowledge to design a disease control program in a developing country.
7. Understand the role of NZDs control on poverty alleviation.
8. Understand the shared responsibilities of various departments in zoonotic disease control programs.
9. Understand the basics on how to evaluate control/prevention programs.
10. Understand our global veterinary and medical responsibilities.

IV. Methods of Instruction and Work Expectations

- Practice the knowledge acquired in the case of an ongoing endemic situation, such as brucellosis in Africa: study the various international organizations involved and how they collaborate to help solve the problem.
- Design a control program and implement it in a developing country.

This course combines interactive lectures, group activities (task prompts), student's self-directed learning and student presentations.

1. During the course orientation, 2 projects, prepared in groups, will be assigned on Day 1 and will be presented to the class on the last 2 days of the course.
 - a. The students will be expected to spend 4 hours exploring websites and reading materials on International Health Organizations (IO). They will prepare a PowerPoint presentation and present the information to the class. The goal of this project is to help the students understand the role these IO play at the global level.
 - b. The students will work on a group project on an NZD control program. They will prepare a PowerPoint presentation and present the information to the class. The goal of this project is

to help the students understand the impact of NZDs, the role of various Departments and the collaboration of various health professionals in disease control.

2. Instructors will share their experience with the students through interactive presentations to illustrate the role of some IO in real NZDs control.
3. After the students presentations on IO and NZDs, and the instructors interactive presentations, the class will be organized in small groups and will work on 2 task prompts:
 - a. Study and ongoing endemic situation, such as brucellosis in a developing country and list the various IO involved and how they collaborate to help solve the problem.
 - b. Design a project to control and prevent a NZD in a developing country.

Grading plan:

Technical and non technical competencies will be graded (see rubrics).

Technical competencies:

The 2 presentations of the group projects will be graded as showed below. The students may work together, each one should present a part of the work and the presentation should also be submitted to the evaluators.

Non technical competencies:

Grades will also be assigned for class participation and will represent 20% of the course grade.

PBL will represent 10% of the grade.

Students will be able to obtain full credit for classroom participation by asking questions, participating in discussions and participating to the task prompts.

- Oral presentations on international organizations 30.0%
- Oral presentations on control programs 40.0%
- Task prompts: 10.0%
- Course Director Evaluation 20.0%

RUBRIC FOR ORAL PRESENTATION

Level of demonstration of understanding	Professional (10 points)	Competent (8 points)	Marginal (6 points)	Unacceptable (0 points)
Content				
Discussion of problem or situation	Accurate and concise description of the problem or situation being addressed.	Accurate identification of the problem or situation being addressed. Demonstration of basic understanding of why the situation occurred and solutions presented.	General identification of the problem or situation being addressed, but some areas remain unidentified. Solution stated but not discussed.	Failure to correctly identify the problem or situation
Discussion of factors leading to the problem or situation	Thorough, concise description of all factors contributing to the problem or situation. Discussion of degree of accountability related to each factor.	Description of major factors contributing to the problem or situation. Some minor overlooked. Some degree of accountability discussed.	Has included the major contributing factors to the problem or situation but fails to identify degree of accountability.	No demonstration of an understanding of even major contributing factors to the problem or situation.
Discussion of solution for problem or situation	Thorough, concise description of all necessary measures for resolution of the problem or situation. Provides thorough explanation of both positive and negative aspects of recommended resolution measures. Addresses why the recommended measures are preferable and briefly discusses why alternatives are not as suitable in this situation.	Description of major necessary measures for resolution of the problem or situation. Discusses recommendations for preferred resolution measures.	Has included some major measures for resolution of the problem or situation but fails to justify the recommended resolution measures.	No demonstration of an understanding of even basic resolution measures.
Identification of proper agencies or organizations	Demonstrates knowledge of all local, regional, state, national, or international agencies or organizations	Demonstrates knowledge of major of state, regional, national, or international agencies or organizations	Demonstrates knowledge of some state, regional, national, or international agencies or organizations	Unable to demonstrate knowledge of state, regional, national, or international agencies or

necessary to effectively address the problem or situation. Recommends quality and quantity of communication and collaboration with such agencies. Understands the roles of individual agencies and makes necessary adjustments to recommended protocols to maximize efficiency in resolution of the current situation or problem.

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	Professional (5 points)	Competent (4 points)	Marginal (3 points)	Unacceptable (0 points)
Presentation				
Critical thinking	Demonstration of a clear line of thought, through clearly structured and documented recommendations and reasoning for those recommendations.	Reasonable recommendations provided. However reasoning not always clear or documented.	Vague recommendations, poorly thought out, recommendations only partly correct in fact.	No demonstration of critical thinking, recommendations are false or incorrect
Organization	Information presented in logical sequence which client can follow. Organization allows for immediate access to specific information without reading entire document.	Student presents information in logical sequence which client can follow. Difficult to access specific information without reading much of document.	Client has difficulty understanding information because interruptions in logical sequence.	Client cannot understand information because there is no sequence of information.
Written communication	Conveys the ideas and recommendations discussed in a succinct and clear manner.	Conveys the ideas and recommendations clearly most of the time.	Able to convey idea or recommendation clearly most of the time. Unable to clearly discern recommendations occasionally.	Unable to convey the idea or recommendation clearly. Thoughts seem muddled.
Use of terminology	Correctly use the terminology at all times. Also, recognizes particular nuances that may	Able to understand the terminology and use correctly all or overwhelmingly most times.	Aware of the terminology, however, frequently fails to understand the terminology and therefore,	Either unaware of the terminology and its use is not included in the paper, or consistently uses

sometimes be confusing. The use of terminology enhances the arguments as it makes discussions clear.

incorrectly uses the terminology often. However the argument being advanced is still reasonable clear.

terminology incorrectly to the point that the argument is not clear

RUBRIC FOR COURSE DIRECTOR EVALUATION

Level of demonstration	Professional (10 points)	Competent (8 points)	Marginal (6 points)	Unacceptable (0 points)
Professionalism	Strong team member and active participant in discussions. Always works respectfully and cooperatively with others.	Good team member and active participant in discussions. Works respectfully and cooperatively with others.	Occasionally behavior not reflective of a team player. Lack of participation in discussions. Does not always work respectfully or cooperatively with others.	Behavior not reflective of a team player. Does not participate in discussions. Does not work respectfully or cooperatively with others.
Collaboration	Openly shares thoughts and ideas and listens to those of others. Provides detailed and descriptive feedback and highly receptive to feedback from others.	In general, shares thoughts and ideas and listens to those of others. In general provides constructive feedback and receptive to feedback from others.	Does not always openly share thoughts and ideas and listen to those of others. Does not always provide constructive feedback or is receptive to feedback from others.	Does not openly share thoughts and ideas and listen to those of others. Does not provide constructive feedback and is not receptive to feedback from others.
Communication	Communication is always non-judgmental, accepting and understanding.	Most of the time communication is non-judgmental, accepting and understanding.	At times communication was judgmental and not accepting or understanding.	Communication was judgmental and not accepting or understanding.
Self-directed learning	Highly self-motivated and eager to learn. Recognized inadequacies in knowledge and took appropriate measures to resolve inadequacies.	Good motivation to learn. In general recognized inadequacies in knowledge and took appropriate measures to resolve inadequacies.	Motivation to learn lacking at times. At times lacks awareness of inadequacies in knowledge and made some attempt to resolve inadequacies.	Lacks motivation to learn. Completely lacks awareness of inadequacies in knowledge or does not attempt to resolve inadequacies.
Critical appraisal	Critically evaluated learning resources.	Usually evaluated learning resources.	Evaluation of learning resources is lacking.	Does not critically evaluate learning resources.
Work ethic	Always prompt, dependable and reliable.	In most circumstances is prompt, reliable and dependable.	Not always prompt reliable or dependable. Absences notable.	Not prompt, reliable or dependable. Prominent absences.

V. Course Text and Readings

Required Readings: Please note, copies of journal articles are not supplied unless specified. Students are responsible for downloading all course materials and completing pre-course assignments.

To access the articles with a PMID number, go to the PubMed website at <http://www.ncbi.nlm.nih.gov/entrez/query.fcgi>

Type in the PMID number listed on the course materials, click the go button

This takes you to a citation page, click on the author name

This takes you to the abstract page, click on the journal title button

This takes you to the full journal article

To access all other articles, go to the U of MN libraries website at

<http://www.lib.umn.edu/articles/ej.phtml>

Type in the journal title in the “Search For” box, click the go button

This takes you to a list of possible journal titles, click on the title you want

This takes you to a search form, fill in citation information, click the go button

You will be prompted to login with your X.500 number and password

This will take you to the journal and the abstract of the article

Find on the page where it says Full Text or PDF (it is different for each journal), click on that and the full text will open.

Required Textbook: Sherman, David, Tending Animals in the Global Village. A Guide to International Veterinary Medicine. Blackwell Publishing, 2002 ISBN 0683180517, 9780683180510

Other Required Readings

1. WHO/DFID-AHP. (2005). Report of a joint WHO/DFID-AHP Meeting with the participation of FAO and OIE. The control of neglected zoonotic diseases, a route to poverty alleviation. 20 and 21 September, Geneva. http://www.who.int/zoonoses/Report_Sept06.pdf
2. WHO/The control of neglected zoonotic diseases. Online: http://www.who.int/zoonoses/control_neglected_zoonoses/en/print.html. (Accessed January 22, 2009).
3. WHO/EU/ILRI/FAO/OIE/AU. (2007). Report of a joint WHO/EU/ILRI/FAO/OIE/AU meeting. Integrated Control of Neglected Zoonotic Diseases in Africa. Applying the “One Health” Concept. 13-15 November, ILRI Headquarters, Nairobi, Kenya. In press. <http://dosei.who.int/uhtbin/cgiisirs/hPMzRrGHJp/66070068/5/0>
4. FAO Expert Consultation on Community on Community Based Veterinary Public Health (VPH) Systems. Rome, 27-28 October 2003.
5. WHO. (2002). Future trends in Veterinary Public Health: Report of a WHO Study Group. 1-5 WHO Technical Report Series 907. Geneva. Meeting held in March 1999, Teramo, Italy. <http://dosei.who.int/uhtbin/cgiisirs/hPMzRrGHJp/66070068/5/0>
6. Foreign Animal Disease: The Grey Book http://www.vet.uga.edu/vpp/gray_book/
7. Capacity building for surveillance and control of zoonotic diseases(FAO)-2005) <http://www.fao.org/docrep/009/a0083e/a0083e00.htm>
8. Improved animal health for poverty reduction and sustainable livelihoods(FAO papers #153) <http://www.fao.org/DOCREP/005/Y3542E/Y3542E00.HTM>
9. VPH and control of zoonoses in developing countries (FAO electronic conference, Dr. Ashley Robinson). <http://www.fao.org/docrep/006/Y4962T/y4962t01.htm>

VI. Course Outline/Weekly Schedule

Tuesday May 26	<p>1:00 – 2:00pm Introduction to the course. Dr. Kachani, Dr. Robinson. Assignments for Thursday and Friday.</p> <p>2:00 – 3:00 pm Overview on neglected zoonotic diseases (NZDs) and barriers to control and the “One Health concept”. Dr. Robinson.</p> <p>3:00 – 4:00pm Role WHO, FAO, OIE, ILRI, EU in NZDs control. Dr. Kachani</p> <p>4:00 – 5:00 pm Brucellosis in Armenia. Dr. Robinson. Our experience with international organizations. Dr. Kachani and Dr. Robinson.</p>
Wednesday May 27	<p>1:00 –4:00 pm Students’ presentations on international organizations: FAO, WHO, OIE, PAHO, ILRI, IAEA and NGOs. Dr. Kachani & Dr. Robinson.</p> <p>4:00 – 5:00 pm Task prompt: Rabies in Africa. Dr. Kachani & Dr. Robinson.</p>
Thursday May 28	<p>1:00 – 3:00 pm Hydatid disease in Morocco, Peru and Kenya. Dr. Kachani.</p> <p>3:00 – 5:00 pm Task prompt: design of a program to control rabies in a developing country. Dr. Kachani & Dr. Robinson.</p>
Friday May 29	<p>1:00 – 4:00 pm Students’ presentations: Animal disease control programs: Rabies in Latin America, brucellosis in the USA, Tuberculosis in the USA, cysticercosis in Latin America. Dr. Kachani & Dr. Robinson. Course evaluations.</p>

VII. Evaluation and Grading

Technical and non technical competencies will be graded (see rubrics).

Technical competencies:

The 2 presentations of the group projects will be graded.

Non technical competencies:

Grades will also be assigned for class participation and will represent 20% of the course grade.

PBL will represent 10% of the grade.

Students will be able to obtain full credit for classroom participation by asking questions, participating in discussions and participating to the task prompts.

- Oral presentations on international organizations 30.0%
- Oral presentations on control programs 40.0%
- Task prompts: 10.0%
- Course Director Evaluation 20.0%

This course is offered A/F or S/N

- **A/F letter grade will be determined by total effort as follows:**

A = 90-100%	(4.0) Represents achievement that is outstanding relative to the level necessary to meet course requirements.
A- =	(3.67)
B+ =	(3.33)
B = 80-90%	(3.0) Represents achievement that is significantly above the level necessary to meet course requirements.
B- =	(2.67)
C+ =	(2.33)
C = 70-80%	(2.0) Represents achievement that meets the minimum course requirements in every respect.
C- =	(1.67)
D+ =	(1.0)
D = 60-70%	(1.0) Achievement that is worthy of credit even though it fails to meet fully the course requirements.
D- =	
F = below 60%	Represents failure (or no credit) and signifies that the work was either (1) completed but at a level of achievement that is not worthy of credit or (2) was not completed and there was no agreement between the instructor and the student that the student would be awarded an I.

- **S/N option must complete all assignments to a C- level (70%):**

S	Achievement that is satisfactory which is equivalent to a C- or better (achievement is at the discretion of the instructor but may be no lower than a C-).
N	Represents failure (or no credit) and signifies that the work was either (1) completed but at a level of achievement that is not worthy of credit or (2) was not completed and there was no agreement between the instructor and the student that the student would be awarded an I.

PLEASE NOTE:

If applicable, students may change grading options during the initial registration period or during the first two weeks of the term. **The grading option for a Public Health Institute 4-day course may not be changed after the second day of class. Or, after the first day of class for a 2-day course.**

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 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: 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.

Course Evaluation

Beginning in fall 2008 the School of Public Health will collect student course evaluations electronically using a software system called CoursEval. The system will send email notifications to students when they can access and complete the course evaluations. Students who complete the course evaluations promptly will be able to access their final grades just as soon as the faculty member renders the grade. All students will have access to their final grades two weeks after the last day of the semester regardless of whether they completed the course evaluation or not.

Student feedback on course content and faculty teaching skills are important means for improving our work. Please take the time to complete a course evaluation for each of the course for which you are registered.

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. **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. See section below for rules about Public Health Institute courses.

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

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, 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).