

Epidemics and Disasters

Syllabus

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Course Description:

This course has been developed out of a recognition that no one in decision making positions in health care, public health or government has any first hand experience with the social upheavals arising from a global pandemic for which there is neither effective treatment nor a vaccine. Similarly few have any first hand experience with the long term impact of natural or man made catastrophies This *directed readings* course has been structured to provide biosecurity professionals with the understanding of how societies have responded to catastrophic events so that they may better anticipate the planning, management and recovery of contemporary events.

The course will, through a set of *directed readings*, threaded discussions and sectional assignments explore the social, medical and economic impact of plague, smallpox,, the 1918-19 Flu pandemic, hantavirus, West Nile Virus and Hoof and Mouth disease. Because a catastrophic chemical release or a nuclear disaster poses systemic challenges to the health and social fabric of a nation, therefore, this course will also the consequences of Bophal, Hiroshima and Chernobyl. Katrina, the catastrophe of our time, laid bare the vulnerabilities of a complex society to a natural event in which the infrastructure of a large region was completely destroyed. and is the subject of a significant portion of the course.

The *directed readings* have been selected to provide historical accounts of major epidemics and events. The questions for the threaded discussions focus on the application of historical data to contemporary planning efforts.

Course Goal:

Through the process of studying the medical, social, economic and political consequences of historically significant epidemics & catastrophic events the learner will gain a contextual understanding of the complexities of contemporary planning necessary for the management of and recovery from a highly lethal pandemic, a catastrophic chemical release a nuclear event and a natural disaster..

Course Objectives:

At the conclusion of this course a student will be able to demonstrate:

1. The ability to synthesize the historic material by developing a set of slide based presentations or briefing papers that reflect an anticipation of the consequences of an outbreak of a highly pathogenic emerging infectious disease.
2. A culturally sensitive understanding of the disruptive impact of quarantine and isolation as disease control measures for an epidemic for which no medical treatment exists.
3. An understanding of the immediate and long-term societal impact of catastrophic chemical release or nuclear incident and consider the elements of a realistic, management and recovery plan.
4. An understanding of the impact of an untreatable pandemic on developing countries and its effect on economies of the industrial societies to create a management recovery plan

Course Format: Directed readings followed by threaded discussions, and sectional assignments. There will be mini lectures interspersed throughout the course.

Evaluation of Performance:

There are no examinations or quizzes in this course. Grades are issued on the basis of points acculumanated through participation in the weekly discussions, quality of assignments and the quality of the final assignment.

The point system is as follows:

Discussion questions	= 10 points/ each	– Total possible points =	130
Regular assignments	= 20 points/each	-- Total possible points =	100
Final Assignment	= 70 points	-- total possible points =	<u>70</u>
		Maximum number of points	300

According to the Saint Louis University Graduate School, the only final grades allowed are:

- A (≥ 93% of Maximum points)
- B+ (90 – 92 % of Maximum points)
- B (83 – 89 % of Maximum points)
- B- (80 – 82 % of Maximum points)
- C (73 – 79 % of Maximum points)
- F (≤ 72 % of Maximum points)

Due Dates:

All due dates are listed in the assignments document and the course calendar. Should there be any unanticipated changes in dates or details of assignments including the assignment of additional readings they will be posted on the calendar and on the discussion board.

Course Policies:

- All class-associated email communication should take place through the course WebCT email.
- The week for class readings, assignments, and seminar discussion is defined as Monday through Sunday at midnight.
- Seminar discussions should begin early in the session to allow for maximum interaction.
- On the weeks for which there is a seminar discussion assignment, students are expected to access the WebCT seminar board at least twice a week unless you notify the instructor in advance of a schedule conflict. This will allow discussion of relevant topics in the electronic seminar.
- The standard for the course professor will be to login to the course at least 3 days of the week.
- Responses to all individual comments are not possible although answers to specific questions will be given.
- Students should notify the course professor early if they are unable to participate in a scheduled seminar or assignment during a specific week.
- Students must notify the instructor in advance if some life event or obligation precludes them from submitting an assignment on time. Project due dates are very flexible for military personnel that are deployed; please discuss this with the instructor.
- It is at the instructor's discretion to allow students to make-up missed assignments.
- All University, Graduate School, and School of Public Health policies and procedures are in effect, including, but not limited to, academic standards, course withdrawals, and course incompletes. Please refer to the:
 - [Catalog of the Graduate School](#)
 - [Office of the Bursar](#) (Student Accounts)
 - [Office of the University Registrar](#) (Student Services)

- Institute for Biosecurity Policy Statement on Academic and Professional Integrity. Details on the Biosecurity Policy Statement on Academic and Professional Integrity are provided in the Academic Integrity link to the left of your WebCT course page and in the MS in Biosecurity Student Handbook.
- More information, policies, and guidelines relevant to your education are available on the School of Public Health web site at: [SLU School of Public Health](#). It is your responsibility to become familiar with all information available through this and the Web sites above.

Required Texts:

1.) Hopkins, D. R. (2002). The Greatest Killer; Smallpox in History. The University of Chicago Press. ISBN# 0-226-35168-8
2.) Kelly, J. (2005). The Great Mortality; an Intimate History of the Black Death, The Most Devastating Plague of All-time. Harper Collins. ISBN # 0-06-000692-7
3.) Barry, J. M. (2004). The Great Influenza; The Epic Story Of The Deadliest Plague in History Viking/Penguin. ISBN # 0-670-89473-7
4.) Zelicoff, A., & Bellomo, M. (2005). Microbe: Are We Ready For The Next Plague? NY: AMACON. ISBN# 08144-0865-6.
- 5.) Hersey, J. Hiroshima, Vintage Books, NY,NY
ISBN 0-679-72103-7
- 6.) Brinkley, Douglas, The Great Deluge; Hurricane Katrina, New Orleans, and the Mississippi Gulf Coast, Harper Collins, NY,NY 2006
ISBN # 13:978=0-06-112423-0

Texts may be purchased from any online vendor. Examples include [Amazon.com](#), [Barnes and Noble](#), and [ecampus.com](#). Please note that the ISBN numbers listed above are usually associated with the hardback version of the book; you may buy the paperback version of any of the books when it is available.

Course Outline:

For organizational purposes the course has been divided into the following 14 weekly sessions.

- Plague: Weeks 1 & 2
- Smallpox: Weeks 3

- Influenza: Weeks 4 & 5
- Hantavirus: Week 6
- Hoof and Mouth Disease: Week 7
- West Nile Virus: Week 8
- Bophal: Week 9
- Chernobyl: Week 10
- Hiroshima Week 11
- Katrina Weeks 12, 13 & 14
- Final assignment Week 15