

**ANTHROPOLOGY 204
PLAGUES PAST AND PRESENT**

BULLETIN INFORMATION

ANTH 204 - Plagues Past and Present (3 credit hours)

Course Description:

An overview of how plagues and epidemics have shaped human prehistory and history. How large-scale social transformations have produced forms of human/disease interactions. How infectious disease has been conceptualized at different times and by different cultural groups and treated as a threat to the social order.

SAMPLE COURSE OVERVIEW

This course examines how infectious-disease epidemics have shaped human history. The approach is anthropological, thus the emphasis is on the relationship between broad social processes (such as migration and warfare) and biological variables (the evolution of pathogens and the human immune system). Students in this class will be introduced to the basic scientific principles of epidemiology, and will be asked to consider how human-disease interactions can be both the cause and result of major epidemics. The course is divided into several topical sections:

- 1) a basic primer on epidemiology;
- 2) a historical overview of how the development of urbanism and the domestication of plants and animals spurred a co-evolutionary relationship between humans and pathogens;
- 3) a consideration of how variants of large-scale human mobility (warfare, colonialism, globalization) have dispersed infectious diseases and transformed societies;
- 4) an examination of how contemporary cultural interactions have promoted the spread of virulent emergent and re-emergent diseases. Throughout the course we will consider how infectious disease has been conceptualized at different times and by different cultures, and treated as a threat to the social order.

A central goal of the course is to emphasize how natural and social science approaches can be integrated with a long-term perspective on cultural evolution. We will examine how large-scale social transformations such as advances in transportation networks, the domestication of animals, and the development of cities have produced novel forms of epidemics. We will also consider how infectious disease may have frustrated colonial ambitions, major development projects (such as the Panama Canal), and other global initiatives. Students can better comprehend such historical processes by an innovative melding of natural and social science frameworks.

ITEMIZED LEARNING OUTCOMES

Upon successful completion of Anthropology 204, students will be able to:

- 1) Define basic anthropological and epidemiological terminology related to human biology, infectious pathogens, and cultural systems.
- 2) Apply methodologies for the dispersal of epidemics and pandemics.
- 3) Explain how the human immune system is shaped by both cultural and biological variables.
- 4) Identify the forms of evidence use to assess diseases and disease vectors in pre-modern contexts.
- 5) Develop and evaluate hypotheses related to the co-evolution of disease and human subsistence patterns, as expressed through skeletal pathologies.
- 6) Explain how cultural stereotypes may be fostered by the association of certain diseases with geography, gender, or class.
- 7) Explain how technological and medical innovations may impact the evolution of pathogens.
- 8) Identify ways in human responses to disease may be affected by both scientific and cultural traditions particular to specific societies.

SAMPLE REQUIRED TEXTS/SUGGESTED READINGS/MATERIALS

There will be one required text for the class, supplemented by additional readings that will be made available on Blackboard.

1. Sherman, Irwin (2006). *The Power of Plagues*. ASM Press, Washington, DC.

On Blackboard:

1. Ewald, Paul W. (1994). *Evolution of Infectious Disease*. Oxford University Press, New York.
2. Oldstone, Michael B. A. (1998). *Viruses, Plagues, and History*. Oxford University Press, New York.
3. Wills, Christopher (1996). *Yellow Fever, Black Goddess*. Addison Wesley, Reading, MA.

SAMPLE ASSIGNMENTS AND/OR EXAMS

The course begins with a brief overview of a classification of infectious pathogens, the nature of the human immune system, and how social scientists work in the field of historical epidemiology. The remainder of the course pursues a historical overview of how major epidemics and pandemics have evolved alongside major transformations and events in human society. We will focus on how the acceleration of epidemics through time to a large degree has been a function of the increasing intensity and expansiveness of human interactions worldwide. We will also explore how the spread of infectious disease has often been the unintended consequence of major cultural innovations, such as the development of modern medicine and subsequent anti-biotic resistance.

1. Course Presentation and Requirements

Class content will be provided by lectures, debates, discussion and **take-home projects**.

2. Evaluation

The course will rely primarily on **in-class exams and quizzes**, and **take-home projects** to demonstrate mastery of the material.

- A. The **quizzes** will take place at about the $\frac{1}{4}$ and $\frac{3}{4}$ points of the semester. They are intended to insure that students are learning terminology and concepts basic to epidemiology and anthropology.

- B. The **exams** will consist of a mid-term and a final. Although the exams include a number of objective questions, they also have short answer and essay components that require students to explain the social dimensions of the spread of infectious disease.
- C. There are **two take-home projects**.
 - a. For the first, students will be provided data on disease-related skeletal pathologies on a hunting and gathering group and an agricultural society in prehistoric North America. They will contrast the data between the two assemblages to evaluate the impacts of sedentism on human health.
 - b. For the second project, students will apply basic principles of geographic information systems to assess how epidemics have been monitored historically (the infamous 19th century cholera epidemics) as well as in modern times.
 - c. Assignments will require students to demonstrate understanding of methods, interdisciplinary knowledge, and issues of social difference/diversity.

3. Portfolios

Anthropology undergraduate majors and graduate students are encouraged to keep an **electronic portfolio** of course papers and other work that may reflect your scholarship in our department. You will be encouraged to turn in this e-portfolio upon graduation. It will be kept confidential on a dedicated server in the department, and will make it much more convenient for you and the faculty in the future when you contact the department to request letters of recommendation.

SAMPLE COURSE OUTLINE WITH TIMELINE OF TOPICS, READINGS/ASSIGNMENTS, EXAMS/PROJECTS

Week 1: What is Infectious Disease? (Sherman, Chaps. 1 & 10)

Week 2: Infectious Disease in Prehistory and the Ancient World (Sherman, Chaps. 2 & 3)

Week 3: Disease and Faith in Medieval Times (Sherman, Chaps. 4, 14)

Week 4: Treating Disease in the Premodern Era (Sherman, Chap. 11)

QUIZ 1: focusing on basic terms and concepts in epidemiology and anthropology

Week 5: Plagues and Colonialism (Sherman, Chap. 9; and pp. 313-325)

Project 1 handed out

Week 6: Cholera: Contagion, Morality and Social Control (Sherman, Chap. 8)

Week 7: Public Health and Germ Theory (Sherman, Chap. 6)

Project 1 due

MID-TERM: covers materials in weeks 1 through 7

Week 8: Aesthetics of Disease: Plagues in Art and Literature

Week 9: Epilogues to Disaster: Plagues and Wars (Sherman, pp. 395-400; Ewald, Chap. 7)

Week 10: Post-Colonialism: Disease, Development, and Globalization (Sherman, Chap. 7; and pp. 337-349)

Week 11: Sexually Transmitted Diseases, Gender, and Morality (Sherman, Chap. 5)

QUIZ 2: focuses on disease and social issues in modern era

Week 12: Revisits from Tuberculosis and “Old” Diseases (Sherman, Chap. 13; Oldstone, Chap. 11)

Project 2 handed out

Weeks 13/14: Emergent Diseases: from Ebola to Mad Cows (Sherman, Chap. 17; Oldstone, Chap. 10; Wills, Chaps. 11 & 12)

Project 2 due

FINAL: non-cumulative, covers materials in weeks 8 through 15

TIME AND DATE ACCORDING TO UNIVERSITY EXAM SCHEDULE