

Mechanisms of Human Disease; The Plight of Native Americans and European Conquest, M470/M570

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Class meets Tuesday and Thursday, 2:30-3:45, Jordan Hall 001

Course website: http://medsci.indiana.edu/m470/m470_570/start.html

Readings password = infection

Day	Topic
Tu 8/21	Introduction, Timing of separation of Asian and New World populations, Methods of study.
Tr 8/23	Peopling the Americas, founder population size, independent evolution?
Tu 8/28	Population genetics, Red Queen, bottle neck, drift
Tr 8/30	Population genetics. Emergence of herd-type infectious diseases
Tu 9/4	Infectious disease, emergence, infectivity and pathogenesis, acute and chronic infections
Tr 9/6	More infectious diseases
Tu 9/11	Host response to infections and types of injury, evolutionary impact on human genome
Tr 9/13	More of same
Tu 9/18	Epidemiology, population recovery, complications and group support, 'Herd immunity'
Tr 9/20	Epidemiology, case studies, ancient sources, spread Project 1: take home exam, due next week.
Tu 9/25	Contact with Europeans and others, who counted? Motivating forces.
Tr 9/27	European experience with epidemic disease Project 1 due this week Topic for final paper.
Tu 10/2	Health status of Native Americans at time of contact
Tr 10/4	Unique Native American Susceptibilities, diabetes, alcoholism, 'Herd immunity'

Tu 10/9	Environmental modifications
Tr 10/11	Documentary sources we will use
Tu 10/16	Smallpox
Tr 10/18	Smallpox
Tu 10/23	Measles
Tr 10/25	Influenza, Native Americans plus 1918 pandemic Second project; term paper outline and class presentation.
Tu 10/30	Tuberculosis, examples, injury, 'herd size'
Tr 11/1	Plague
Tu 11/6	Typhus
Tr 11/8	Malaria
Tu 11/13	Yellow fever
Tr 11/15	The problem of syphilis
Tu 11/20	No class, but you do have an assignment.
Tr 11/22	T-day
Tu 11/27	Disease and Colonialism
Tr 11/29	The modern world, what have we learned from the experience of history?
Tu 12/4	No class, use this time for your paper
Tr 12/6	No class, but final paper due today Thursday, 12/6.

Grade determination

- General class participation and attendance; 10% of the student's final grade.
- Two written projects with topics assigned by the instructor. These projects will come at roughly the 1/3 and 2/3 point in the semester. The first project consists of a take home exam. The topics will be relative to the subjects covered in the first four week block of the course. Each student will choose one question, or topic area, from a list of five. You will have one week to research the topic and present a type-written response of not less than 5 double spaced pages. Students will need to reference their material. Several questions will require internet web searches, and reference URLs will be required. The second project will consist of detailed outline of your term paper subject and will include a brief class presentation. The two projects will represent 40% of the student's final grade.
- A final research-style term paper of not less than 10, double spaced type-written pages for undergraduates and 15 pages for graduate students, will be due a week before the end of the course. The topic will be of the student's choosing, although the instructor will approve the subjects. The students will be required to choose a topic by the fifth week of the course. This final research paper will represent 50% of the student's grade.