



Syllabus

HIS 265 The Black Death and Beyond: How Disease Has Changed History

General Information

Date March 8th, 2024

Author Robert Brown

Department Social Science

Course Prefix HIS

Course Number 265

Course Title The Black Death and Beyond: How Disease Has Changed History

Course Information

Catalog Description This course is a global history of medicine and disease, from antiquity to the present. It investigates the manifold ways in which plague, smallpox, typhus, syphilis, typhoid, cholera, tuberculosis, scurvy, malaria, influenza, COVID and other diseases have shaped human history, from the Paleolithic era, to ancient Egypt, Greece, and Rome, the medieval Christian and Islamic worlds, the Age of Exploration, the Industrial Revolution and beyond. It also explores how civilization and human activity (agriculture, urbanization, trade, imperialism, war, migration, medical and technological progress etc.) have, in turn, influenced the origins and course of diseases, and generated history's greatest epidemics and pandemics. This course carries SUNY General Education credit in World History and Global Awareness.

Credit Hours 3

Lecture Contact Hours 3

Lab Contact Hours 0

Other Contact Hours 0

Grading Scheme Letter

Prerequisites

ENG 101

Co-requisites

None

First Year Experience/Capstone Designation

This course is designated as satisfying the outcomes applicable for status as a Capstone Course

SUNY General Education

This course is designated as satisfying a requirement in the following SUNY Gen Ed category

World History and Global Awareness

FLCC Values

Institutional Learning Outcomes Addressed by the Course

Inquiry and Interconnectedness

Course Learning Outcomes

Course Learning Outcomes

1. Identify some of the major developments, events and themes of global medical history, from the third millennium B.C.E. to the early 21st century C.E.
2. Describe the diverse responses of global civilizations to the challenge of endemic, epidemic and pandemic disease, and their impact on well-being and sustainability during the ancient, medieval and modern eras.
3. Describe how changing medical perceptions and practices throughout history reflect the values, structures, and systems of the diverse global civilizations and cultures of the ancient, medieval and modern eras.
4. Describe how their understanding of the global history of medicine, and the origins and dynamics of pandemic disease, connects with the educational path they are following, informs their worldview, and impacts upon their institutional and/or community roles.

Outline of Topics Covered

Why Medical History?

Disease & Early Human History

- Origins of Human Disease
- Disease and Medical Practices in Hunter-Gatherer Communities
- Disease and the Agricultural/Neolithic Revolution

Medicine, Disease and Surgery in Ancient Near Eastern Civilization: Egypt and Mesopotamia

Ancient Greek Medicine

- Bronze Age Medicine
- Hippocrates, Humanism and Humors: The Fifth Century B.C.E. Medical Revolution
- Dysentery (Enteric Fever)
 - Origins, Nature, Course, Prevention and Treatment
 - Impact on the Persian Wars
- Typhoid Fever (*salmonella typhi*)
 - Origins, Nature, Course, Prevention and Treatment
 - The “Plague of Athens” and the Peloponnesian War

Medicine in the Hellenistic Era

- Medicine in the “First Great Age of Science”: Herophilus, Erasistratus and the Birth of Anatomy
- Disease in the Age of Alexander the Great

Malaria

- Origins, Nature, Course, Prevention and Treatment
- Historical Impact: Ancient Egypt to the Vietnam War
- Malaria in the World Today
- West Nile Virus and Yellow Fever

Ancient Roman Medicine

- Galenic Medicine: Anatomy, Surgery and the Preventative Doctrine
- Celsus and Pharmacology
- Soranus: Obstetrics and Gynecology
- Dioscorides and Drug Therapy
- Roman Public Health: Waste Management, Sanitation and Hygiene
- Medical Explanations for the Fall of Rome

- Lead Poisoning and Population Decline
- Birth of the Pandemic Age
- Plague (*Yersinia Pestis*): Bubonic, Pneumonic and Septicemic
 - Etiology, Course and Treatment
 - The Antonine and Aurelian Plagues, 2nd – 3rd c. C.E.
 - Byzantine Medicine and Justinian's Plague, 6th c. C.E.

Medieval Medicine, 500- 1500 C.E.

- Medicine in the Age of Faith & Superstition
- Pagan Influences on Medieval Medicine
- Ergotism and Scrofula
- Urban Squalor and Disease
- Medicine and the 12th Century Renaissance
- Medicine and the Crusades
- Islamic Medicine: Rhazes, Avicenna, Averroes and Albucasis
- Leprosy: Etiology, Perceptions, Treatments and Historical Impact
- The Black Death, 1347-51
 - Pandemic Preconditions in the 14th Century
 - Origins and Interpretations
 - Historical Impact (Asia, Middle East, Africa and Europe)

Medicine in the Age of the Renaissance and Scientific Revolution, 16th – 17th Centuries

- Background to the 16th – 17th century Medical Revolution
- Vesalius, Harvey and Maynow and the Rebirth of Anatomy
- Surgery in the Gunpowder Age: Da Vigo, Pare and Von Gesdorff
- Van Leeuwenhoek, Hooke and the Microscopic Revolution
- Paracelsus: Acrimonies and Pathological Anatomy
- Drug Therapy and the Rise of Modern Chemistry

- Fracastorius: Contagionism and the "Individualization of Disease"
- Disease and the Global Implications of the "Columbian Exchange"

The Columbian Exchange I: Syphilis (*Treponema pallidum*)

- Nature, Causation, Symptoms and Treatment
- North American Origin Theory and Impact on Native American Populations
- Impact of the "Great Pox" in the Old World
- Prevention, Detection and Treatment: Prophylactics, Wasserman, Ehrlich's "Magic Bullet" and the Antibiotic Era

The Columbian Exchange II: Smallpox (*Variola major and Variola minor*)

- Nature, Causation, Symptoms and Treatment
- Old World Origins and Impact
- Armageddon: Smallpox in the "New World"
 - Smallpox and Colonial American History
 - Cortes and the Aztecs
 - Pizzaro and the Inca
 - Smallpox and the Global Slave Trade
 - Smallpox in the Pacific
- Conquest of Smallpox: Variolation to Vaccination
- Global Eradication of Smallpox
- Smallpox and Bioterrorism

Scurvy: Scourge of the Sea

- Nature, Causes, Symptoms and Treatment
- Historical Impact
- Scurvy and the "Age of Sail"
- Lind and Treatment

Typhus (*Rickettsia prowazekii*): Napoleonic Scourge

- Epidemic Typhus: Etiology, Spread and Treatment
- Historical Impact
 - Role in the Columbian Exchange
 - Thirty Years' War, 1618-48
 - Role in the Napoleonic Wars and the Russian Fiasco of 1812

- Typhus in the “Age of Sail”
- Typhus and the Irish Famine, 1845-52
- Louse-borne Illness in WWI
- Typhus in WWII and the Holocaust
- Conquest of Typhus

Diseases of the Industrial Revolution: Cholera (*Vibrio cholerae*)

- Nature, Causes, Symptoms and Treatment
- Impact: Global Endemicity and Pandemicity
- Cholera, Imperialism and the Industrial Revolution
- Global Pandemics of 1829-37, 1846-60 and 1881-96
- John Snow’s “Ghost Map”
- Role in the American Civil War
- Public Health Acts of 1848 and 1875
- Bazalgette, Von Pettenkofer and Modern Sanitation
- Koch’s Bacillus
- Cholera in the Third World

Diseases of the Industrial Revolution: Tuberculosis (TB -*Mycobacterium tuberculosis*)

- Nature, Causes, Symptoms and Treatment
- Prehistoric Origins
- TB and the “Columbian Exchange”
- Impact in the Industrial Age
- The “White Death” in Literature, Art and Culture
- Treatment: Laennec, Tuberculin, X-Ray/Radiology, BCG and Streptomycin
- The Challenge of TB in the 21st Century: Demographic Movement and Congestion, Comorbidity, Antibiotic-resistance

The Victorian Medical Revolution

- Virchow, Pasteur, Koch and the Bacteriological Revolution
- Surgical Revolution: Lister, Semmelweis, Antisepsis and Anesthesia
- Pasteur, Koch and the Bacteriological Revolution
- Edwin Chadwick, Sanitary Reform and Public Health
- Florence Nightingale and the Emergence of Modern Nursing

Medicine in the Age of Total War: WWI

- Tetanus, Dysentery and Other Medical Challenges of Trench Warfare
- Casualty Evacuation, Imaging, Triage and Transfusion
- Shell Shock (PTSD) and Modern Psychiatry
- Reconstructive/Plastic Surgery
- Chemical Warfare
- “Khaki Fever:” VD in the Trenches
- Endocrinology
- Tropical Medicine: Africa, Balkans and the Middle East

Influenza: The 'Viral Pirate' and the Spanish Flu Pandemic of 1918

- Nature, Causes, Symptoms and Treatment
- Influenza Through the Ages: Medieval “Sweating Sickness” to the “Russian Grippe” of 1889-90
- The “Spanish Flu” Pandemic of 1918-19: Origins and Impact
- “Fateful Alliance:” The Flu Pandemic of 1918 and the First World War
- Influenza Pandemics of 1957, 1968, 1977 and 2009.

Medical Developments in the Second World War Era

- The Antibiotic Revolution: Sulfa Drugs and Penicillin
- Battlefield Treatment: Plasma, Burn Treatment and Thoracic Surgery
- Vascular Surgery, Defibrillation, and the Pacemaker
- Chemotherapy and Cancer Treatment
- DDT and Insect-Borne Diseases
- Diabetes Treatment: Insulin and Dialysis

Post-WWII Medical Triumphs

- Imaging: CT, EKG, MRI and Ultrasound
- DNA and the Genetics Revolution
- Artificial Heart and Organ Transplantation
- Robotic Surgery
- Immunology
- Conquest of Polio
- HIV-AIDS Pandemic
- Ebola
- Swine Flu and Bird Flu
- SARS and COVID

