Course Overview

The history of mankind is a story of recurrent struggles with diseases and epidemics. In biblical times, eruptions of diseases were called “pestilence” or plagues. As humans push beyond the frontiers of their birthplace, and shifted from being hunters to gatherers, then transitioned from settlers to colonizers, they modified the ecology of their environment by their very existence and social behavior. Variations in geographic endowment and natural resources interacted with human behaviors and systems of government to destroy ancient civilizations, created vast empires and in the process spread new forms of diseases across the globe.

The products and lifestyles of the Conquerors also introduced unheard-of diseases and epidemics to the Conquered, and vice versa. We remain continually threatened by the re-emergence of ancient diseases and the appearance of new ones that come about as a result of globalization and unstoppable scientific development. Population movements and travel to far-flung places expose us to new epidemics. In the process of seeking to control diseases, influence other countries or populations, and maintain our economic position in the world, our sophisticated technologies also create new dependencies and resistance to drug treatment. This course offers a look at the significant role that selected epidemics have played in the development of human civilizations from the beginning of recorded history to the present era. Students are introduced to important public health and epidemiologic concepts through the study of epidemics.

II. Course Objectives

- Articulate what “plague” or epidemic means and how they were dealt with in the middle ages.
- Differentiate between endemic and syndemic diseases, epidemics, and pandemics.
- Gain knowledge about the Epidemiologic Triad that is used by epidemiologists to conceptualize disease transmission and implement prevention strategies and public health control measures.
- Outline the steps in outbreak investigations, and conditions for isolation and quarantine.
- State the disease transmission process that starts an epidemic for selected diseases, and identify the macro social, economic, geographic and political factors that either successfully disrupt or promote the spread of disease across large populations during certain periods.
- Evaluate the conditions that generate, and provide opportunities for the potential control of, major global health threats and the role of government and non-governmental agencies in eliminating poverty and reducing the adverse consequences of epidemics.
- Discuss the debates over Jared Diamond’s theory of “guns, germs, and steel” and broad issues of how and why epidemics occur, re-occur, and become pandemics.
- Access W.H.O., CDC, NIH, NIMH, UNICEF, ACS, AHA and other internet resources for diseases covered in class.
Attainment of these learning objectives is assessed in the exams and assignments. Failure to show up for Final Exam results in a course grade of F.

Course Materials

This course follows a “blended learning” approach using lectures, films, journal articles, internet resources (such as CDC, W.H.O., United Nations, and other websites) and selected chapters from a couple of textbooks. Title of articles and books (optional readings) are posted on Blackboard. The bulk of lecture materials is in PowerPoint format and posted on Blackboard. Films or videos shown in class may not be available in the library. No students may borrow professor’s copy of the films or videos.


Websites to be familiar with:

1. http://www.who.int/ gives news report of the most current global health threats and epidemics in different countries. Read or download the latest annual flagship report of WHO called World Health Report.
2. https://www.unicef.org/ Search for info on child and women’s health issues. Every year, UNICEF publishes the same report, The State of the World’s Children, with recent data updates and a different theme. These reports can be downloaded free of charge. It is published every year in February and available in several languages including English, Chinese, French and Spanish.

Course Policies

Attendance

Students are expected to attend class regularly, and to provide a written reason for being absent or leaving class early. Attendance is taken on random days. If students are asked to complete an exercise online by a certain date, failure to meet that deadline will count as missing attendance on that date.

Missing Class. If you miss a class, it is your responsibility to check on BB what you have missed. Check Blackboard regularly. If a class must be cancelled (due to weather conditions, campus emergency lockdown, or professor’s sudden illness), it will be posted on BB, the day of the class.

Classroom Conduct

Participation/Classroom Etiquette: Students will be expected to be active participants in the learning process. When students contribute thoughtful comments and questions to class discussions or presentations, the learning experience enriches everyone in class. Students should also listen attentively to the speakers and to each other. This course will cover a variety of topics about which many individuals
have strong feelings or opinions. Students are expected to articulate their comments and questions in a respectful manner and understand that others may have different perspectives.

**Religious holidays**
According to the University Policy File, students should notify the instructors of affected courses of planned absences for religious observances by the end of the second week of classes.

**Deferred Action for Childhood Arrivals (DACA)**
All students with questions or concerns regarding DACA are encouraged to see the College of Health and Human Services Assistant Dean for Student Affairs, Jessica Robinson (jmrobinson@sdsu.edu).

**Concerns Regarding Classroom Activity, Grades, or other Student Affair Matters**
Though students have the option of contacting the San Diego State University Ombudsman or the Assistant Dean for Student Affairs at any time regarding classroom activity, grades, or other student affairs matters, students are encouraged to meet with their professor first to discuss the situation. If the issue is not resolved at this level, the student should contact their undergraduate advisor. If the problem is not resolved at this level, contact should be made to their department director and finally their Assistant Dean for Student Affairs.

**Safety and Crisis Assistance.** Students are encouraged to consult with SDSU public safety regarding parking and other safety issues.
1. **SDSU Police:** 619-594-1991
2. **Counseling and Psychological Services:** 619-594-5220
3. **San Diego Access and Crisis Line:** 888-724-7240
4. **SDSU Student Health Services:** Home - San Diego State University shs.sdsu.edu/

Student Health Services (SHS) is staffed by fully licensed and certified health professionals who are dedicated to the college community. No-cost or low-cost medical services include outpatient evaluation and treatment of common medical problems, preventive care, health counseling, immunizations and psychiatric treatment. Specialty care services including Dentistry, Optometry and Orthopedics are available for additional fees.

**Cell Phones and Classroom disruptions**
There are important health reasons to be concerned with unnecessary cell phone exposure. Watch New Urgent Warning to All Cell Phone Users.

The video will be played in class on the first day of class. There will be an online quiz on the content of this video. If you miss class, please watch it on your own before taking the online quiz/exercise. Please turn off cell phones before class starts and let it stay turned off during class time. Or put on airplane mode (to reduce your radiation exposure and that of others). Using cell phones to take photos of exam questions—whether printed or displayed on the white board (or blackboard)—is considered a form of cheating.

Please put your cell phone on AIRPLANE MODE DURING CLASS. Students are **not** permitted to use their laptop, nor leave it on, in class during the lecture. No laptop should be on the student’s desk. PowerPoint lecture notes are available from BB. Any note-taking in class is best done by hand.
Classroom Recordings

No tape recording or video-taping is permitted. Students must obtain written permission to record or videotape a class lecture or discussion. Without prior written permission the student may be reported for misconduct.

Students with Disabilities

If you are a student with a disability and believe you will need accommodations for this class, it is your responsibility to contact Student Disability Services at (619) 594-6473. To avoid any delaying the receipt of your accommodations, you should contact Student Disability Services as soon as possible. Please note that accommodations are not retroactive, and that accommodations based upon disability cannot be provided until you have presented your instructor with an accommodation letter from Student Disability Services. Your cooperation is appreciated.

Nondiscrimination Policy

SDSU does not discriminate students on the basis of sex, gender, or sexual orientation, religion, disability in the education programs or activities it conducts.

- San Diego State University complies with the requirements of Title VI and Title VII of the Civil Rights Act of 1964, as well as other applicable federal and state laws prohibiting discrimination. No person shall, on the basis of race, color, or national origin be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination in any program of the California State University.

- SDSU does not discriminate on the basis of disability in admission or access to, or treatment or employment in, its programs and activities. Students should direct inquiries concerning San Diego State University’s compliance with all relevant disability laws to the Director of Student Disability Services (SDS), Calpulli Center, Room 3101, San Diego State University, San Diego, CA 92128 or call 619-594-6473 (TDD: 619-594-2929).

- SDSU does not discriminate on the basis of sex, gender, or sexual orientation in the educational programs or activities it conducts. More detail on SDSU’s Nondiscrimination Policy can be found in the SDSU General Catalog, University Policies. Students should direct FERPA, Title IX, Discrimination, Harassment or any other protected categories inquiries and concerns to the office of Employee Relations and Compliance, phone number is 619-594-6464 and their website is http://oerc.sdsu.edu/

Academic Honesty

The University adheres to a strict policy regarding cheating and plagiarism. Students are expected to maintain the highest standards of academic honesty and respect. According to SDSU’s Center for Student Rights and Responsibilities, students may be expelled, suspended, or put on probation for academic dishonesty. In addition to a University review of the incident(s), the Graduate School of Public Health may also take disciplinary action which, depending on the severity of the incident, could result in one or all of the following sanctions: a grade of “F” on the assignment in question, dropping of one letter grade from your final grade in the class, or, for multiple or severe incidents, a grade of “F” in the class. You may receive an incomplete in a class, which will be removed once the investigation of the incident has been completed.

Cheating shall be defined as the act of obtaining or attempting to obtain credit for academic work by the use of dishonest, deceptive, or fraudulent means. Examples of cheating include, but are not limited to
(a) copying, in part or in whole, from another’s test or other examination; (b) discussing answers or ideas relating to the answers on a test or other examination without the permission of the instructor; (c) obtaining copies of a test, an examination, or other course material without the permission of the instructor; (d) using notes, cheat sheets, or other devices considered inappropriate under the prescribed testing condition; (e) collaborating with another or others in work to be presented without the permission of the instructor; (f) falsifying records, laboratory work, or other course data; (g) submitting work previously presented in another course, if contrary to the rules of the course; (h) altering or interfering with the grading procedures; (i) plagiarizing, as defined; and (j) knowingly and intentionally assisting another student in any of the above.

Plagiarism shall be defined as the act of incorporating ideas, words, or specific substance of another, whether purchased, borrowed, or otherwise obtained, and submitting same to the University as one’s own work to fulfill academic requirements without giving credit to the appropriate source. Plagiarism shall include but not be limited to (a) submitting work, either in part or in whole, completed by another; (b) omitting footnotes for ideas, statements, facts, or conclusions that belong to another; (c) omitting quotation marks when quoting directly from another, whether it be a paragraph, sentence, or part thereof; (d) close and lengthy paraphrasing of the writings of another; (e) submitting another person’s artistic works, such as musical compositions, photographs, paintings, drawings, or sculptures; and (f) submitting as one’s own work papers purchased from research companies.

Examples of Plagiarism include but are not limited to:
- Using sources verbatim or paraphrasing without giving proper attribution (this can include phrases, sentences, paragraphs and/or pages of work)
- Copying and pasting work from an online or offline source directly and calling it your own
- Using information you find from an online or offline source without giving the author credit
- Replacing words or phrases from another source and inserting your own words or phrases
- Submitting a piece of work you did for one class to another class

If you have questions on what is plagiarism, please consult the policy.

**Turnitin**

Students agree that by taking this course all required papers may be subject to submission for textual similarity review to Turnitin.com for the detection of plagiarism. All submitted papers will be included as source documents in the Turnitin.com reference database solely for the purpose of detecting plagiarism of such papers. You may submit your papers in such a way that no identifying information about you is included. Another option is that you may request, in writing, that your papers not be submitted to Turnitin.com. However, if you choose this option you will be required to provide documentation to substantiate that the papers are your original work and do not include any plagiarized material.

**Course Assessment and Grading**

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<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
<th>Notes</th>
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<tbody>
<tr>
<td>Assignments (Group Project)</td>
<td>25%</td>
<td><em>(No make-up given)</em></td>
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<tr>
<td>Quizzes¹</td>
<td>25%</td>
<td><em>(No make-up given)</em></td>
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<tr>
<td>Midterms Exam²</td>
<td>25%</td>
<td><em>(No make-up exam given)</em></td>
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<tr>
<td>Final Exam²,³</td>
<td>25%</td>
<td><em>(No make-up exam given)</em></td>
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<tr>
<td>Extra-Credit Assignment</td>
<td>10 points</td>
<td><strong>MAXIMUM</strong> <em>(Added to course grade)</em></td>
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¹ **Quizzes:** Most if not all exercises and quizzes are online. Students must score 100% on each online quiz in order to move on.
²Include films shown in class. Multiple choice. Bring narrow red Parscore scantron form to class.
³Assumes that topics covered before the midterm exam are already understood. Multiple choice.
Assignments:

1. **Extra Credit.** This is an optional assignment for students concerned with their grade. Watch the film on Ebola (available on BB) and discuss the ethical issues, macro-social perspectives and political dimensions of the disease. Can the treatment be used in the U.S.? What kind of issues are likely to occur if the same treatment was applied in the U.S.? 5-10 typed pages maximum, double-spaced. not counting photos or references. Graded on the quality of the presentation.

2. **Group Project.** Students work in groups of preferably 5 persons (no smaller than 3 persons) and report on one of the following diseases or health conditions by relating it to another similar topic. So, students will be comparing at least 2 related diseases, or 2 diseases that most people usually get confused with. The purpose of the project is to examine the cause of the disease (in contrast to another disease), host factors, mode of transmission, time factor (seasonality), demographics of susceptible population, prevention measures, and how government and/or non-profit organizations work together to control the epidemic. Please pay attention to social, economic and political factors, and not molecular or cellular-level of disease causation.

For example: syphilis vs. gonorrhea; chlamydia vs. pelvic inflammatory disease; measles vs. chicken pox; Ebola vs another hemorrhagic disease; Zika virus vs. another disease. To earn a good grade, students will need to be able to synthesize the information & compare how they are alike or different from other diseases in terms of the agent causing the disease, or mode of transmission and prevention. There will be test questions on the content of this assignment.

Final course grade will be based on percentage of total points earned. Valid grades include:

<table>
<thead>
<tr>
<th>Grade</th>
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<tbody>
<tr>
<td>A</td>
<td>95-100%</td>
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<tr>
<td>A-</td>
<td>90-94%</td>
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<tr>
<td>B+</td>
<td>85-89%</td>
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<td>70-74%</td>
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<tr>
<td>C</td>
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<td>C-</td>
<td>60-64%</td>
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<tr>
<td>D+</td>
<td>57-59%</td>
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<tr>
<td>D</td>
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<tr>
<td>D-</td>
<td>50-53%</td>
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<tr>
<td>F</td>
<td>&lt;50%</td>
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</tbody>
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*Students who do not complete the assignments and do not show up for quizzes/exams will receive an F.*

**DISCLAIMER**

Every effort will be made to follow the syllabus content and schedule; however, if circumstances dictate there may be modifications necessary during the semester. If such is the case the professor will make every effort to notify students in a timely manner.

**Course Calendar**

See next two pages attached, called Timetable.
### Week # & Date

**Topics (Subject to change with short or no notice. Check Blackboard)**

<table>
<thead>
<tr>
<th>Week &amp; Date</th>
<th>Topics</th>
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Watch video: New URGENT Warnings to all Cell Phone Users  
OPTIONAL Film: The Dark Ages – Watch at Home  
- Introduction – Discuss the Syllabus  
- Watch video: New URGENT Warnings to all Cell Phone Users  
- Lecture: The Epidemiologic Triad  
- Concepts to Learn: Endemic, Syndemic, Epidemics vs. Pandemics |
| Wk2. 2/2 | Important Concepts in Public Health & Epidemiology  
- Lecture: Disease Causation (which includes a brief history of the Roman Empire)  
- Lecture: Epidemics and PH Prevention Measures  
- Film: Smallpox: Deadly Again?  
- Lecture: What is Smallpox  
**After class – Do online Exercise on Cell Phone Use**  
(covers the syllabus and last week’s lectures and videos/films) |
| Wk3. 2/9 | Mystery of the Black Death  
- Film: The Plague  
- Lecture: What is Plague?  
- Population Movements, International Trades and Disease  
- Concepts to Learn: Quarantine and Isolation  
**After class – Complete online Quiz #1**  
(Covers the syllabus and lectures/videos/films up to today)  
- **After class, start forming Group Project** |
| Wk4. 2/16 | Syphilis  
- Steps in Outbreak Investigation  
- Film 1: The Syphilis Enigma  
- Conquests, Expansions and Modes of transmission  
- Population Density, Lifestyle and Disease  
- Group Project members meet in class  
**Expect an online Quiz (covers weeks 2-4 lectures & films)** |
| Wk5. 2/23 | Typhoid Fever, Cholera, and Pellagra  
- Film: Typhoid Mary  
- Environmental Pollution: Air, Water, and Food Transmission  
- Review: Koch’s Postulates and the Rise of Bacteriology  
- Science vs. Policy: Wright vs. Pearson  
- Concepts to Learn: Carrier, Carrier State and Police Power  
- Lecture: What is cholera?  
- What is Pellagra?  
- Concepts to learn: Poverty, Nutritional Deficiency and Disease  
- Study designs in Goldberger’s Pellagra research  
**Expect an online QUIZ (covers week 5 lectures & films)** |
| Wk6. 3/2 | Yellow Fever & Ethics in Research on Human Subjects  
- Watch Film at Home before coming to class: The Great Fever  
- Lecture: What is yellow fever?  
- Germs vs. Insects as Disease Vectors  
- Discuss: Walter Reed’s experiments – ethical?  
- **Watch Film in class: Deadly Deception**  
- Ethics of Research on Human Subjects and Informed Consent  
Ebola – Students who want Extra Credit must watch this film  
- Watch Film at home: Ebola  
- Concepts to learn: Community Trials vs. Clinical Trials  
- What are the research & medical treatment ethics in the Ebola film?  
**Expect an online QUIZ (covers week 6 lectures and films)** |
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<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Topic</th>
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| Wk7. 3/9 | Influenza 1918 | **Film:** The Killer Flu  
- Prevalence, Incidence & Mortality Measures; Case-fatality rate  
- Descriptive Epidemiology: Time, Person, Place  
- Concepts to Learn: Endemicity and Herd Immunity  
- Viruses and Relevance to H1N1 Flu; current FLU epidemic  
- The Role of Government in Public Health  
*Expect an online QUIZ (covers week 7 lecture and videos)* |
| Wk 8. 3/16 | Malaria Lecture first, followed by Midterm Exam (exclude Malaria)  
Lecture: Malaria  
- Film: Malaria – Long film  
- Cost of Prevention and Control: The Business & Politics of Prevention  
- Is government commitment critical to malaria control? |
| Wk 9. 3/23 | Tuberculosis  
- Film on TB: On the Lake – Long film  
- Host and Environment  
- Poverty, Nutrition and Epidemics  
- Multi-Drug Resistance and Government Policy  
*Expect an online QUIZ (covers weeks 8 and 9 lectures and films)* |
| 3/24 to 3/31 | SPRING RECESS – No class |
| Wk10. 4/6 | Polio  
- Film on Polio: Paralyzing Fear  
- Science vs. Policy Issues: How much data needed to develop policies?  
- Types of Vaccine and Vaccination Program  
- Non-profit Organizations and Fundraising for Medical Treatment  
- Concepts to learn: Social Inequality and Disease  
- Additional concepts to learn: Basic Principles of Clinical Trials  
*Expect an online QUIZ (covers week 10 lectures and film/videos)* |
| Wk11. 4/13 | Heart Disease, Food and Public Health  
- Lecture: Food and Public Health  
- Discuss Videos - Interview with Caldwell Esselstyn and others  
- What are the evidence that diet can reverse heart disease?  
Understand inflammation is the underlying factor in all chronic diseases.  
*Expect an online QUIZ (covers week 11 lectures and videos/films)* |
| Wk12. 4/20 | **Student Group Project Presentation**  
- Students presenting during this period must submit their written (PowerPoint) presentation in class. About 5 Groups per class |
| Wk13. 4/27 | **Student Group Project Presentation**  
- All Assignments and extra-credit reports are due in class. NO e-mail. No late submission accepted. Three groups per class, if there are 40 students. May watch film on Guns, Germs and Steel – if there is time |
| Wk 14. 5/4 | Technology, Health and Disease  
- Film: Guns, Germs and Steel – 1st series (Learn nutritional transition)  
- Film: Guns, Germs and Steel – 2nd and 3rd series  
- Cell Phone Use and Cancer Risk (This topic is covered on the 1st day of class)  
Lecture & Review: Demographic and Epidemiologic Transitions |
| Wk15. 5/11 | 4:00-6:00pm. **Final Exam in class, scheduled by the university.** |

**Interacting with me**

I’ll try to respond to emails within 48 hours during business days (not counting weekends). Please send emails to: eyu@mail.sdsu.edu. You may text if you receive no response by e-mail.