



ARIZONA STATE UNIVERSITY

GENERAL STUDIES COURSE PROPOSAL COVER FORM

Course information:

Copy and paste current course information from Class Search/Course Catalog.

Academic Unit: College of Liberal Arts and Sciences, Department: School of Human Evolution and Social Change, Subject: ASM, Number: 345, Title: Disease and Human Evolution, Units: 3

Is this a cross-listed course? No. If yes, please identify course(s)

Is this a shared course? No. If so, list all academic units offering this course

Course description: Interaction of people and pathogens from prehistoric times to the present, with emphasis on disease as an agent of genetic selection.

Requested designation: Literacy and Critical Inquiry-L. Note- a separate proposal is required for each designation requested

Eligibility: Permanent numbered courses must have completed the university's review and approval process. For the rules governing approval of omnibus courses, contact the General Studies Program Office at (480) 965-0739.

Area(s) proposed course will serve: A single course may be proposed for more than one core or awareness area. A course may satisfy a core area requirement and more than one awareness area requirements concurrently, but may not satisfy requirements in two core areas simultaneously, even if approved for those areas. With departmental consent, an approved General Studies course may be counted toward both the General Studies requirement and the major program of study.

- Checklists for general studies designations: Complete and attach the appropriate checklist. Literacy and Critical Inquiry core courses (L), Mathematics core courses (MA), Computer/statistics/quantitative applications core courses (CS), Humanities, Fine Arts and Design core courses (HU), Social and Behavioral Sciences core courses (SB), Natural Sciences core courses (SQ/SG), Global Awareness courses (G), Historical Awareness courses (H), Cultural Diversity in the United States courses (C)

- A complete proposal should include: Signed General Studies Program Course Proposal Cover Form, Criteria Checklist for the area, Course Syllabus, Table of Contents from the textbook, and/or lists of course materials

Contact information: Name: Melissa Beresford, Phone: 480-965-9649, Mail code: 2402, E-mail: melissa.beresford@asu.edu

Department Chair/Director approval: (Required) Chair/Director name (Typed): Alexandra Brewis Slade, Date: 10/2/13



ARIZONA STATE UNIVERSITY

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Chair/Director (Signature):

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ALEXANDRA BREWIS SLADE  
EXECUTIVE DIRECTOR

**MEMO**

*To: University General Studies Council*

*From: Alexandra Brewis Slade, Director SHESC*

*Re: Retroactive General Studies Designation for ASM 345 Disease and Human Evolution*

*Date: October 1, 2013*

Dear General Studies Council,

We are respectfully asking that the L/general studies designation for ASM 345: Disease and Human Evolution be **effective** Spring 2014. We are scheduled to teach this class in spring 2014.

Cordially,



Alexandra Brewis Slade, PhD  
Director & President's Professor

**Arizona State University Criteria Checklist for**  
**LITERACY AND CRITICAL INQUIRY - [L]**

**Rationale and Objectives**

**Literacy** is here defined broadly as communicative competence in written and oral discourse. **Critical inquiry** involves the gathering, interpretation, and evaluation of evidence. Any field of university study may require unique critical skills which have little to do with language in the usual sense (words), but the analysis of spoken and written evidence pervades university study and everyday life. Thus, the General Studies requirements assume that all undergraduates should develop the ability to reason critically and communicate using the medium of language.

The requirement in Literacy and Critical Inquiry presumes, first, that training in literacy and critical inquiry must be sustained beyond traditional First Year English in order to create a habitual skill in every student; and, second, that the skills become more expert, as well as more secure, as the student learns challenging subject matter. Thus, the Literacy and Critical Inquiry requirement stipulates two courses beyond First Year English.

Most lower-level [L] courses are devoted primarily to the further development of critical skills in reading, writing, listening, speaking, or analysis of discourse. Upper-division [L] courses generally are courses in a particular discipline into which writing and critical thinking have been fully integrated as means of learning the content and, in most cases, demonstrating that it has been learned.

Students must complete six credit hours from courses designated as [L], at least three credit hours of which must be chosen from approved upper-division courses, preferably in their major. Students must have completed ENG 101, 107, or 105 to take an [L] course.

Notes:

1. ENG 101, 107 or ENG 105 must be prerequisites
2. Honors theses, XXX 493 meet [L] requirements
3. The list of criteria that must be satisfied for designation as a Literacy and Critical Inquiry [L] course is presented on the following page. This list will help you determine whether the current version of your course meets all of these requirements. If you decide to apply, please attach a current syllabus, or handouts, or other documentation that will provide sufficient information for the General Studies Council to make an informed decision regarding the status of your proposal.

Proposer: Please complete the following section and attach appropriate documentation.

<b>ASU - [L] CRITERIA</b>			
<b>TO QUALIFY FOR [L] DESIGNATION, THE COURSE DESIGN MUST PLACE A MAJOR EMPHASIS ON COMPLETING CRITICAL DISCOURSE--AS EVIDENCED BY THE FOLLOWING CRITERIA:</b>			
YES	NO		Identify Documentation Submitted
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<b>CRITERION 1:</b> At least 50 percent of the grade in the course should depend upon writing, including prepared essays, speeches, or in-class essay examinations. <i>Group projects are acceptable only if each student gathers, interprets, and evaluates evidence, and prepares a summary report</i>	See green highlighted sections on attached syllabus
1. Please describe the assignments that are considered in the computation of course grades--and indicate the proportion of the final grade that is determined by each assignment.			
2. <b>Also:</b> <div style="border: 1px solid black; border-radius: 50%; padding: 10px; margin: 10px 0;"> <p style="background-color: yellow; padding: 5px;">Please <b>circle, underline, or otherwise mark</b> the information presented in the most recent course syllabus (or other material you have submitted) that verifies <b>this description</b> of the grading process--and label this information "<b>C-1</b>".</p> </div> <p style="margin-left: 20px;"><b>C-1</b></p>			
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<b>CRITERION 2:</b> The composition tasks involve the gathering, interpretation, and evaluation of evidence	
1. Please describe the way(s) in which this criterion is addressed in the course design			
2. <b>Also:</b> <div style="border: 1px solid black; border-radius: 50%; padding: 10px; margin: 10px 0;"> <p style="background-color: yellow; padding: 5px;">Please <b>circle, underline, or otherwise mark</b> the information presented in the most recent course syllabus (or other material you have submitted) that verifies <b>this description</b> of the grading process--and label this information "<b>C-2</b>".</p> </div> <p style="margin-left: 20px;"><b>C-2</b></p>			
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<b>CRITERION 3:</b> The syllabus should include a minimum of two substantial writing or speaking tasks, other than or in addition to in-class essay exams	
1. Please provide relatively detailed descriptions of two or more substantial writing or speaking tasks that are included in the course requirements			
2. <b>Also:</b> <div style="border: 1px solid black; border-radius: 50%; padding: 10px; margin: 10px 0;"> <p style="background-color: yellow; padding: 5px;">Please <b>circle, underline, or otherwise mark</b> the information presented in the most recent course syllabus (or other material you have submitted) that verifies <b>this description</b> of the grading process--and label this information "<b>C-3</b>".</p> </div> <p style="margin-left: 20px;"><b>C-3</b></p>			

ASU - [L] CRITERIA			
YES	NO		Identify Documentation Submitted
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<p><b>CRITERION 4:</b> These substantial writing or speaking assignments should be arranged so that the students will get timely feedback from the instructor on each assignment in time to help them do better on subsequent assignments. <i>Intervention at earlier stages in the writing process is especially welcomed</i></p>	
<p>1. Please describe the sequence of course assignments--and the nature of the feedback the current (or most recent) course instructor provides to help students do better on subsequent assignments</p>			
<p>2. <b>Also:</b></p> <div style="border: 1px solid black; border-radius: 50%; padding: 10px; text-align: center;"> <p>Please <b>circle, underline, or otherwise mark</b> the information presented in the most recent course syllabus (or other material you have submitted) that verifies <b>this description</b> of the grading process--and label this information "<b>C-4</b>".</p> </div>			
C-4			

Course Prefix	Number	Title	Designation
ASM	345	Disease and Human Evolution	

Explain in detail which student activities correspond to the **specific** designation criteria.  
Please use the following organizer to explain how the criteria are being met.

Criteria (from checksheet)	How course meets spirit (contextualize specific examples in next column)	Please provide detailed evidence of how course meets criteria (i.e., where in syllabus)
C-1 At least 50 percent of the grade in the course should depend upon writing, including prepared essays, speeches, or in-class essay examinations	60% of the grade for the course is based on written assignments.	Class Assignments Section page 2-5 - see green highlighted sections
C-2 The composition tasks involve the gathering, interpretation, and evaluation of evidence	Students are required to cite and use academic sources for many of their writing assignments. Further more several of the assignments require the students to look at, evaluate, and interpret data sets and the write up their findings	Class Assignments Section page 2-5 - see pink highlighted sections
C-3-4 The syllabus should include a minimum of two substantial writing or speaking tasks, other than or in addition to in-class essay exams and these assignments should be arranged so that the students will get timely feedback from the instructor on each assignment in time to help them do better on subsequent assignments.	Students complete three writing assignments, each worth 20% of their grade. These assignments will be due in weeks 4, 8, and 12 of the semester as to allow for timely feedback from the instructor on each assignment	Class Assignments Section page 2-5 - see yellow highlighted setions for C-3 and blue highlighted sections for C-4

*This syllabus is subject to further change or revision, as needed, to realize best the educational goals of the course. Necessary revisions will be announced in class or on course materials with fair prior notice.*

**Disease and Human Evolution  
ASM 345  
3 credits  
MASTER SYLLABUS**

**Course Description:**

This course examines the role played by disease in human existence, from the beginnings of humanity to the present. Students will define what a disease is, learn the difference between infectious and non-infectious diseases, and see how populations and disease organisms have evolved in tandem. Infectious diseases will include those carried by animal parasites (malaria, schistosomiasis), bacteria (such as bubonic plague, leprosy, tuberculosis, syphilis, lyme disease, typhus), viruses (smallpox, influenza, AIDS), prions, and fungi (coccidiomycosis). This course will also include a discussion of the epidemiological transition.

**Pre-requisites:** ASM 104 or BIO 100, or BIO 181 (or BIO 188), or BIO 182 (or BIO 187) with a D or better.

**Required Course Texts/ Readings:** Disease and Human Evolution by Barnes and weekly readings posted on Blackboard.

**Course Format:** Lecture

**Coursework**

The final grade for the course will be based on 1,000 points total. There will be three exams, three online quizzes and three writing assignments. Each exam is worth 10% of your total grade, each quiz is worth 5% and writing assignment is worth 20% of your total grade.

- 3 Exams (3 x 10%) = 30%
  - 2 quizzes (2 x 5%) = 10%
  - 3 writing assignments (3 x 20%) = 60%
- 100%

Extra credit will not be offered in this course.

For your own protection, you should keep a copy of everything you hand in, and you should keep your graded assignments at least until grades are finalized at the end of the semester, and in the event you wish to contest any grades.

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**Color Key for 'L' Designation Application:**

- Criterion 1 – at least 50% of grade based on critical writing assignment
- Criterion 2 – students must gather, interpret and evaluate evidence
- Criterion 3- at least 2 substantive writing tasks outside of exams
- Criterion 4 – assignments arranged to get timely feedback from the instructor



**Final Grades** Grades will be scaled in the following manner:

A- / A / A+	89.5-92.4/ 92.5-97.4/ 97.5-100	Excellent
B- /B/ B+	79.5-82.4/ 82.5-87.4/ 87.5-89.4	Good
C/ C+	69.5-77.4/ 77.5-79.4	Average
D	59.5-69.4	Passing
E	<60	Failure
XE		Failure due to Academic Dishonesty

### Assignments

#### Writing Assignment #1 (due week 4) – 200 points:

Please read “Blood money: hookworm economics in the postbellum South at <http://bodyhorrors.wordpress.com/2011/04/25/blood-money-hookworm-economics-in-the-postbellum-south/>. Once you have read this article, please write a 2-3 page paper that address each of the following questions.

1. What type of hookworm affected the US in the early 20<sup>th</sup> century? What is the life cycle of this hookworm?
2. What conditions fostered the high rate of infection at the time? What did the Rockefeller Foundation do to try to change this?
3. Is this species of hookworm still a problem in the US? (see the CDC web site [www.cdc.gov](http://www.cdc.gov) and look for hookworm under diseases and conditions). If not what species is present today and how common is it? From an evolutionary perspective, is it beneficial to the current hookworms to infect humans? Why or why not? What does the CDC recommend to prevent infection?
4. The World Health Organization (WHO) reports on hookworms with two other types of worms (roundworms and whipworms) as part of the more general category of helminths ([http://www.who.int/intestinal\\_worms/en/](http://www.who.int/intestinal_worms/en/)). According to the WHO, how many people are estimated to suffer from hookworm infections worldwide?
5. Access the data on soil-transmitted helminthiases from the WHO Global health Observatory ([http://www.who.int/gho/neglected\\_diseases/en/index.html](http://www.who.int/gho/neglected_diseases/en/index.html) ) and view the interactive graph (requires flash player) about the number of children needing preventative chemotherapy for soil-transmitted helminthiases. What country has the highest number of people needing preventative chemotherapy (i.e. drug treatment) for helminthiases in Asia? How many people need treatment? What country in the Americas has the highest number of people needing treatment (and how many people)? What country in Africa has the highest number (and how many people)? (Note: under view data it tells you what their abbreviations mean and you can also get to the interactive report by clicking on “view interactive report on status of distribution and implementation).

#### Writing Assignment #2 (due week 8) – 200 points:

As you learn about diseases and their role in human evolution in this class, you've mainly read about pathogens and their manifestations as we know them now. You may have noticed that the history of each disease and its role in human history have been reviewed for you in a brief format, whether in lecture modules or in readings. And yet, have you asked yourself, "How do we know what we know about diseases in the past? Aside from genetic research, (which can be expensive and very time-consuming) how can we research the role of various diseases in human evolution in order to assess their (and our) future?" For this assignment, I'm asking you to enter into my world (oh, yes, as an aside... I am a bioarchaeologist!) and learn about how researchers study disease in the past through the examination of human skeletal remains and their archaeological and historical contexts.

For this assignment, you will be asked to read two articles, one classic study regarding diagnostic material and one recent case study, and write a 3-4 page paper that answers the following question. If bullet points seem appropriate for certain answers, be sure that these are well-structured and complete answers incorporated into the body of your essay. The articles have been uploaded as PDF files and can be found in the Assignment 2 folder on course online platform. If there are terms and topics in these articles that you're having difficulty with, chances are you don't need to know them! Don't get bogged down in the technical terms or clinical jargon within the methods sections of the articles, but focus on the main points and the overall discussion. Beyond a general understanding of the diagnosis of pathology in human skeletal remains, I'd like you to think about leprosy as a disease that has had a colorful history of strong social responses.

Note: You'll want to complete Learning Module 25 and the associated readings for this assignment. As long as you've viewed Learning Module 23, you can skip ahead to Learning Module 25 if you need to. The order of 24 and 25 is not necessary.

Also, it's important to realize that the human skeleton has only two possible responses to disease processes: bone apposition and bone resorption. These processes can be very generalized, but in a few cases the patterns of apposition and resorption point to very specific disease processes. Leprosy is one such case (though only lepromatous leprosy, which is the more severe form that occurs based upon a low immune response). A reaction said to be directly linked to a disease process is called a *pathognomonic* reaction. See the supplemental pdf if you'd like to learn more!

#### Part A:

*This is the seminal article for the differential diagnosis of leprosy in human skeletal remains.*

Article 1: Møller-Christensen V. 1967. Evidence of leprosy in earlier peoples. IN Brothwell DR and Sandison AT (eds): *Diseases in Antiquity*. Springfield, IL; Charles C. Thomas, pp. 295-306.

1. What are the criteria that Møller-Christensen suggests are indicative of leprosy in the skeleton? *Be specific and thorough* (e.g. don't say: 'skull changes' or '*fascies leprosa*', which just means 'leprosy face'... what actually changes in the skeleton?).

2. Of the criteria that Møller-Christensen proposes are indicative of leprosy in the skeleton, which are the really signature changes? How do you think these changes in the skeleton contribute to the social stigma associated with lepers? *Think in terms of living people...*

3. What are some of the issues that Møller-Christensen discusses in terms of researching leprosy, both from a skeletal and from a historical point of view? What are some other potential issues, either methodological or social?

#### Part B:

Here's a recent, somewhat groundbreaking case study. Think about Møller-Christensen's work as you read.

Article 2: Lunt, D.A. 2011. The first evidence for leprosy in Early Mediaeval Scotland: Two individuals from cemeteries in St. Andrews, Fife, Scotland, with Evidence for Normal Burial Treatment. *International Journal of Osteoarchaeology*. Wiley Online Library.

1. What are some of the key similarities and differences between the Hallow Hill and Kirkhill sites, both in their past contexts (i.e. when/how used...burial layouts, location, etc.) and in their archaeological contexts (i.e. preservation, excavation, etc.)? Do you think these contexts have any key differences or implications that could affect interpretations of the burials within?

2. For each individual (i.e. skeleton), describe the similarities and differences in general burial context and condition of the skeletal remains.

3. For each individual (i.e. skeleton), what were the diagnostic criteria Lunt used to determine that leprosy had caused the skeletal changes observed?

### Part C:

#### Synthesis and Summary:

I want you to think about it! Using what you've learned about leprosy in your readings and in the lectures, as well as what you've learned here...what's the point of studying leprosy? Remember, leprosy is really not that contagious and is relatively difficult to contract.

1. Think about Møller-Christensen's cautions of the difficulty of researching and diagnosing leprosy in archaeological contexts. Which of these applied to Lunt's study and interpretations, if any?

2. Based upon your reading of Møller-Christensen's diagnostic criteria for Part A, did you think that Lunt's cases were convincing diagnoses of leprosy? That is, did his individuals exhibit the signs of leprosy that Møller-Christensen lists? If so, which ones in particular? If not, what was missing?

3. As it is such a socially charged disease, leprosy is a significant piece in of our overall goal of investigating disease and human evolution. Think about Møller-Christensen's purpose in researching leprosy and Lunt's suggestion for how these lepers may have been treated in life. How does their work contribute to our understanding of this disease and its social implications? What makes leprosy different, and therefore important to our understanding of human reaction to disease? Give an example of another disease that has a significant social component, whether stigmatized or otherwise.

### Writing Assignment #3 (due week 12) – 200 points:

Note: This assignment asks you to delve into some influenza data provided by the CDC and the Arizona Department of Health. Specifically, you'll be asked to take a look at the numbers and trends for 2009-2010 in comparison with the surrounding seasons, particularly the current season. There's something strange going on in that season. What is it? I'd really encourage you to read the web pages thoroughly and take a good look at the graphs there before you try to answer the questions. This assignment will make much more sense to you if you begin having a good idea of the overall trends involved!

Go to the CDC's Flu Activity and Surveillance web site (<http://www.cdc.gov/flu/weekly/pastreports.htm>) and answer the following questions in a 3-4 page paper.

1. Read the web page and look at the associated graphs for the 2009-2010 flu season. What's different about this flu season when compared to the others noted here (hint: it has to do with H1N1...)? Take a close look at the *Number of Influenza-Associated Pediatric Deaths by Week of*

*Death* graph. How does the number of deaths reported in the 2007-2008 flu season compare to that of the 2009-2010 flu season?

2. During the entire 2009 influenza A (H1N1) period, the cumulative rates of hospitalization were the highest in which two age groups? Based upon what you've learned about the immune system and the influenza virus, how would you explain this trend?
3. During which week of the 2009-2010 season was the geographic distribution of influenza activity most extensive? How many states reported widespread influenza activity?
4. During week 40 of the 2009-2010 flu season (200940), what percentage of visits to the doctor were due to influenza-like illness? Is this above the national baseline?
5. Aside from the pandemic strain of virus in the 2009-2010 flu season (H1N1), how many novel Influenza A viruses were identified by the CDC? What was the common linkage among these?
6. Among the 2009 pandemic H1N1 viruses tested for resistance to adamantanes, how many (what %) were resistant? Read the web page and look at the associated graphs for the current (2012-2013) flu season. Has this resistance persisted?
7. Read the web page and look at the associated graphs for the current (2012-2013) flu season. Take a close look at the *Number of Influenza-Associated Pediatric Deaths by Week of Death* graph. How does the number of deaths reported in the 2009-2010 flu season compare to that of the 2011-2012 flu season?
8. Take a look at the *Percentage of Visits for Influenza-like Illness Reported by the U.S. Outpatient...* Graph. During which week of the pandemic season did the number of visits spike? How does that compare with subsequent seasons? How does it compare with the current season?

Go to the Arizona Department of Health Services Influenza and RSV surveillance web page (<http://www.azdhs.gov/phs/oids/epi/flu/index.htm>).

9. In the Nov. 4-Nov. 10 weekly activity reports, open the "Influenza Summary Report" pdf. What is the total number of confirmed cases of influenza in Arizona this flu season? What age group has the highest percentage of cases? Look at the data for the 2009-2010 Season in AZ. How does the breakdown by ages in Arizona compare to the breakdown by hospitalization across the country (see Q. 2)?
10. What subtypes of influenza have been noted as most prominent in the 2012-2013 season? How does this compare to particular seasons, especially the 2009-2010 season?
11. Why are influenza-associated deaths in adults not reportable in Arizona? What category is used instead? How many deaths have been attributed to this category since the beginning of this season? How does this compare to the 2011-2012 season? Why is the 5 year mean so much higher?
12. While these statistics are useful and helpful, why do they not present a true picture of the total number of cases of influenza occurring each year in the United States?

### **Incompletes**

A mark of "I" (incomplete) is given by the instructor when you are otherwise doing acceptable work but are unable to complete the course because of illness or other conditions beyond your control. You are required to arrange with the instructor for the completion of the course requirements. The arrangement must be recorded on the Request for Grade of Incomplete form (<http://students.asu.edu/forms/incomplete-grade-request>).

### **Late Assignments.**

Unexcused late assignments will not be accepted. Excuses for an assignment must be made an approved in advance of the due date of the assignment. Requests for excuses must be written, either on paper or email, and approval must be obtained, either by an email reply or by having the paper excuse signed. In order to get credit, with the late assignment you must turn in a copy of the email approval or signed written excuse.

### **Grade Appeals**

ASU has formal and informal channels to appeal a grade. If you wish to appeal any grading decisions, please see <http://catalog.asu.edu/appeal>.

### **Course Policies**

Please do not use cell phones during class. All cell phones and electronic devices must be turned off and out of sight during exams. If a student is spotted with a cell phone out during an exam, the student will receive an immediate grade of zero for the exam, and potentially further disciplinary action.

### **Student Standards**

Students are required to read and act in accordance with university and Arizona Board of Regents policies, including:

The ABOR Code of Conduct: Arizona Board of Regents Policies 5-301 through 5-308:  
[http://www.abor.asu.edu/1\\_the\\_regents/policymanual/chap5/5Section\\_C.pdf](http://www.abor.asu.edu/1_the_regents/policymanual/chap5/5Section_C.pdf)

### **Academic Integrity**

All students are responsible for reviewing and following ASU's policies on academic integrity: <http://provost.asu.edu/academicintegrity>. If you fail to meet the standards of academic integrity in any of the criteria listed on the university policy website, sanctions will be imposed by the instructor, school, and/or dean. Academic dishonesty includes borrowing ideas without proper citation, copying others' work (including information posted on the internet), and failing to turn in your own work for group projects. Please be aware that if you follow an argument closely, even if it is not directly quoted, you must provide a citation to the publication, including the author, date and page number. If you directly quote a source, you must use quotation marks and provide the same sort of citation for each quoted sentence or phrase. You may work with other students on assignments, however, all writing that you turn in must be done independently. If you have any doubt about whether the form of cooperation you contemplate is acceptable, ask the TA or the instructor in advance of turning in an assignment. Please be aware that the work of all students submitted electronically can be scanned using SafeAssignment, which compares them against everything posted on the internet, online article/paper databases, newspapers and magazines, and papers submitted by other students.

### **Student Support and Disability Accommodations**

ASU offers support services through Counseling (<http://students.asu.edu/counseling>), the Learning Resources Center ([www.asu.edu/lrc](http://www.asu.edu/lrc)), and the Disability Resource Center (<http://www.asu.edu/studentaffairs/ed/drc/>). If you are a student in need of special arrangements for we

will do all we can to help, based on the recommendations of these services. For the sake of equity for all students, we cannot make any accommodations without formal guidance from these services.

### **Email Communications**

All email communication for this class will be done through your ASU email account. You should be in the habit of checking your ASU email regularly as you will not only receive important information about your class(es), but other important university updates and information. You are solely responsible for reading and responding if necessary to any information communicated via email. For help with your email go to: [http://help.asu.edu/sims/selfhelp/SelfHelpHome.seam?dept\\_pk=822](http://help.asu.edu/sims/selfhelp/SelfHelpHome.seam?dept_pk=822) and file a help desk ticket by clicking on “My Help Center.”

### **Campus Resources**

As an ASU student you have access to many resources on campus. This includes tutoring, academic success coaching, counseling services, financial aid, disability resources, career and internship help and many opportunities to get involved in student clubs and organizations.

- Tutoring: <http://studentsuccess.asu.edu/node/24>
- Learning Support Services: <http://www.asu.edu/studentaffairs/lss/>
- Counseling Services: <http://students.asu.edu/counseling>
- Financial Aid: <http://students.asu.edu/financialaid>
- Disability Resource Center: <http://www.asu.edu/studentaffairs/ed/drc/>
- Major/Career Exploration: <http://uc.asu.edu/majorexploration/assessment>
- Career Services: <http://students.asu.edu/career>
- Student Organizations: <http://www.asu.edu/studentaffairs/mu/clubs/>

For more information about the School of Human Evolution and Social Change, including our degree programs, research opportunities and advising information, please go to: [http://shesc.asu.edu/undergraduate\\_studies](http://shesc.asu.edu/undergraduate_studies). Our advisors are always willing to discuss career and guidance options with you.

### **Schedule of Readings and Assignments**

Week by week outlines of lectures, readings and assignments will be posted on Blackboard.

Color Key:

- Criterion 1 – at least 50% of grade based on critical writing assignment
- Criterion 2 – students must gather, interpret and evaluate evidence
- Criterion 3- at least 2 substantive writing tasks outside of exams
- Criterion 4 – assignments arranged to get timely feedback from the instructor

## List of Course Topics

1. Introduction
2. Disease Concepts
3. Human Evolution
4. Human Dispersal
5. Epidemiologic Transition
6. Epidemiologic Transition (continued)
7. Parasites
8. Worms
9. Ectoparasites
10. Chagas Disease
11. Malaria Vector Borne Diseases
12. Malaria as a selective force
13. Mycotic infections
14. Parasitism paradox
15. Epidemiology
16. Water-borne diseases
17. Water-borne diseases (cont)
18. The Plague
19. Evolution of the Plague Bacillus
20. Consequences of the Plague
21. STD's
22. STD's (cont)
23. Mycobacterial diseases
24. Pre-Columbian TB in the New World
25. Leprosy
26. Viruses and Smallpox
27. Smallpox manifestations
28. Smallpox vaccination
29. Vaccination and ERV
30. Poliomyelitis
31. History of an epidemic
32. HIV and AIDS
33. HIV Evolution
34. Influenza virus
35. Influenza virus variation
36. Pandemic Influenza viruses
37. Prion diseases
38. Epidemiological transition 3
39. Evolutionary Medicine

40. Emerging infectious diseases
41. Viral hemorrhagic fevers
42. SARS
43. Drug resistance
44. Drug resistance (cont)



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PREFACE xi

CHAPTER 1

INTRODUCTION I

The Meaning of Disease 2

Approaches to Understanding Disease 5 • Coming Together 6

Germs, Genes, Geography, and Human Behavior 7

Concluding Comments 8

CHAPTER 2

THE WAR BETWEEN MICROBES AND MEN 9

The Good, the Bad, and the Ugly 12 • The War Zone 19

Immunity throughout the Life Cycle 24

Concluding Comments 24

CHAPTER 3

EARLY HUMANS AND THEIR DISEASES 27

Wanderlust 27 • Evolutionary Hitchhikers 28

Herpes 30 • Roving Parasites and Opportunistic Microbes 33

Insect Carriers of Disease 34 • Hitchhiking Insects 35

Ingestion of Parasites 37 • Trichinosis 39 • Tapeworms (Cestodes) 40

Noninfectious Disease and Dental Disease 41

Paleolithic Times 42

Concluding Comments 43

CHAPTER 4

THE SEEDS OF CHANGE 45

Prologue 45 • The Best of Times 47 • Changing Times 48

Changes in Disease Patterns 51 • Rodent-borne Diseases 52

Insect-borne Diseases 54 • Togetherness in a Crowded Village 57

Intestinal Roundworms (Nematodes) 58 • Hookworms 61

Noninfectious Disease and Dental Disease 62

Concluding Comments 63

CHAPTER 5

MOSQUITOES, MALARIA, AND GENE WARS 67

Shifting Paradigms 67 • The Vectors of Malaria 69

Evolution of Malaria 74

The Lives of the Plasmodia Parasites of Malaria 76

The Disease Complex 80 • Endemic versus Epidemic Malaria 85

Surviving the New Order through Genetics 86

Concluding Comments 96

CHAPTER 6

INVITATION TO A MINUTE WORM: THE SCHISTOSOMES 99

Background Check 99 • The Onerous Guest 100

The African Invitation 105 • The Asian Invitation 110

Concluding Comments 112

CHAPTER 7

BRAVING NEW WORLDS: INVISIBLE ENEMIES OF SETTLERS 115

Paradise Found and Lost 115

Avoiding Africa's Fly Belts and the Sleeping Sickness 117

Making Room for Chagas' Disease in the New World 122

Leishmaniases: Old and New World 125 • Flying Worms (Filariae) 130

Concluding Comments 134

CHAPTER 8

DOMESTICATED ANIMALS AND DISEASE 137

Man's Best Friend 138 • Dogs and Rabies 139 • Cat Fanciers 140

Cats and Toxoplasmosis 141 • Taking Stock 143

Goats and Brucellosis 147 • Bringing the Cows Home, and Anthrax 150

No News Is Good News in the New World 153

Concluding Comments 154

CHAPTER 9

COWS, MYCOBACTERIA, AND TUBERCULOSIS 157

Mycobacteria 157 • Cows and the Mycobacteria of Tuberculosis 158

Tuberculosis: The Human Disease 160

Disease from Environmental Mycobacteria 166

The Ancient Trail of Tuberculosis 167

Concluding Comments 171

CHAPTER 10

THE MORAL DISEASE: LEPROSY 173

What Makes a Leper? 173 • The Culprit of Leprosy 174

Different Sores for Different Folks 176 • The History of Leprosy 180

Concluding Comments 182

CHAPTER 11

THE COMING OF CIVILIZATION 185

The Lands of Plenty 186 • Opportunity Knocks 188

Evolution of Childhood Diseases 190

Concluding Comments 200

CHAPTER 12

SYPHILIS: THE GREAT CHANGE ARTIST 201

The Agent 201 • The Many Faces of Syphilis 203

The Yaws Version 204 • The Pinta Version 205

Nonvenereal Syphilis 206 • Venereal Syphilis 207

Different Scenes, Different Patterns of Sores 207 • Congenital Syphilis 211

Changeovers 212 • The Great Historical Pretense and the Facts 213

Concluding Comments 217

CHAPTER 13

MEMORIES OF SMALLPOX 221

The Virus 221 • The Disease 223 • The Trail of Smallpox 226

Desperate Measures 230 • Cowpox 233 • The Hybrid Virus 233

Concluding Comments 234

CHAPTER 14

PESTILENCE, PLAGUE, AND RATS 237

Rats Take Over the World 238 • Rat Fleas and Yersinia pestis 241

The Disease 243 • Origin and Spread: The Great Rat Migrations 244

Concluding Comments 248

CHAPTER 15

OF LICE AND MEN: PLUS TICKS, MITES, AND CHIGGERS 251

Lice and Men at War 251 • Wild Flea-borne Typhus 253

Human (Louse-borne) Typhus 255 • Brill-Zinsser Disease 257

History of Typhus 258 • Trench Fever 261

Ticks, Mites, Chiggers, and Spotted Fevers 262

Concluding Comments 267

CHAPTER 16

MARCHING TO A NEW WORLD ORDER: EUROPEAN EXPANSION AND  
THE INDUSTRIAL REVOLUTION 269

Medieval Prologue 269 • The Great Paradigm Shift 271  
The Great Leap Forward 273  
Concluding Comments 276

CHAPTER 17

EASY ROUTE TO FAME AND GRIPE: CHOLERA, THE SALMONELLA  
GANG, AND OTHER PROMINENT GUT BUGS 279

The Story of Cholera 280 • The Salmonella Gang 287  
Other Prominent Gut Bugs 293  
Concluding Comments 297

CHAPTER 18

TRANSOCEANIC HITCHHIKERS: YELLOW FEVER AND  
ITS DENGUE COUSIN 299

Yellow Fever 300  
The Yellow Fever Viral Impact on the Human Host 303  
Yellow Fever Epilogue 305 • Dengue Fever 306  
Primary Infection of Dengue Fever 307  
Dengue Hemorrhagic Fever 309  
Concluding Comments 310

CHAPTER 19

FOOD FOR THOUGHT: THE MYSTERY DISEASES 313

Food Choices and Availability 314  
The Mystery Diseases: For Lack of Certain Nutrients 316  
The Land of All You Can Eat 331  
Concluding Comments 334

CHAPTER 20

THE GLOBALIZATION OF INFLUENZA 337

What Is Influenza? 337 • The Agents of Infection 339  
Shifting Subtypes and Drifting New Lineages 342  
The 1918 Influenza Pandemic 343 • Early History of Influenza 346  
Post-1918 Influenza 348 • The 1976 Swine Flu Fiasco 349  
The 1997 Bird Flu Scare 351  
Concluding Comments 352

CHAPTER 21

DISEASES OF MODERN CIVILIZATION 355

On the Road to Affluence 355 • Operation "Clean Sweep" 357  
Epidemic Poliomyelitis 359 • Meningococcal Meningitis 362  
The Hepatitis World 364 • Obstreperous Strep and the Staph of Life 367  
Opportunistic Legionnaire's Disease 375 • Lyme Disease 376  
The Mystery of Chronic Diseases 380 • Cancer Wars 382  
Concluding Comments 385

CHAPTER 22

THE NEW VIRAL WARS AND SLEEPING DRAGONS 387

The HIV/AIDS Pandemic 388 • Hemorrhagic Fevers 398  
Viral Encephalitis 406  
Concluding Comments 411

CHAPTER 23

BACK TO THE FUTURE 413

SARS: The Warning Shot Heard around the World 414  
Pollution's Progress 415 • A Word about Fungus 418  
Germs and Chemicals Designed for War 419  
Mad Cows, Designer Pigs, and Fancy Plants 422  
The Greatest Danger: A Crowded World 425 • Out of Order 426  
Concluding Comments: Ignorance Is Not Bliss 428

WORKS CITED 429

INDEX 469