

ARIZONA STATE UNIVERSITY EAST/TEMPE CAMPUS
GENERAL STUDIES PROGRAM COURSE PROPOSAL COVER FORM

Courses submitted to the GSC between 2/1 and 4/30 if approved, will be effective the following Spring.

Courses submitted between 5/1 and 1/31 if approved, will be effective the following Fall.

(SUBMISSION VIA ADOBE.PDF FILES IS PREFERRED)

DATE 11/4/08

1. ACADEMIC UNIT: School of Human Evolution and Social Change

2. COURSE PROPOSED: SSH 100 Introduction to Global Health 3
(prefix) (number) (title) (semester hours)

3. CONTACT PERSON: Name: Alissa Ruth Phone: 5-4628
Mail Code: 2402 E-Mail: alissa.ruth@asu.edu

4. ELIGIBILITY: New courses must be approved by the Tempe Campus Curriculum Subcommittee and must have a regular course number. For the rules governing approval of omnibus courses, contact the General Studies Program Office at 965-0739.

5. 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.

Core Areas

- Literacy and Critical Inquiry-L
- Mathematical Studies-MA CS
- Humanities and Fine Arts-HU
- Social and Behavioral Sciences-SB
- Natural Sciences-SQ SG

Awareness Areas

- Global Awareness-G
 - Historical Awareness-H
 - Cultural Diversity in the United States-C
- (Note: one course per form)

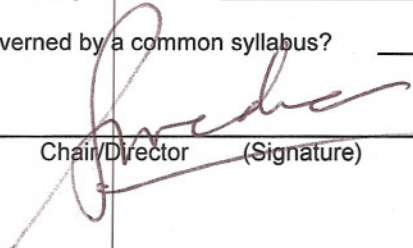
6. DOCUMENTATION REQUIRED.
 (1) Course Description
 (2) Course Syllabus
 (3) Criteria Checklist for the area
 (4) Table of Contents from the textbook used, if available

7. *In the space provided below (or on a separate sheet), please also provide a description of how the course meets the specific criteria in the area for which the course is being proposed.*

CROSS-LISTED COURSES: No Yes; Please identify courses: ASB 100

Is this a multisection course?: No Yes; Is it governed by a common syllabus? _____

Sander van der Leeuw
 Chair/Director (Print or Type)


 Chair/Director (Signature)

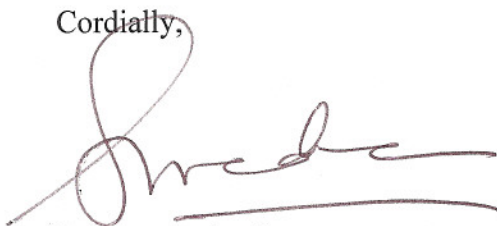
Date: _____

November, 4 2008

Dear General Studies Committee,

We are respectfully asking for a retroactive date of **Spring 2008** for **SSH 100/ASB 100: Introduction to Global Health**. We appreciate your consideration of this request.

Cordially,

A handwritten signature in dark ink, appearing to read 'Sander van der Leeuw', written over a horizontal line.

Sander van der Leeuw
Director SHESC

Arizona State University Criteria Checklist for

HISTORICAL AWARENESS [H]

Rationale and Objectives

The lack of historical awareness on the part of contemporary university graduates has led recent studies of higher education to call for the creation and development of historical consciousness in undergraduates now and in the future. From one perspective historical awareness is a valuable aid in the analysis of present-day problems because historical forces and traditions have created modern life and lie just beneath its surface. From a second perspective, the historical past is an indispensable source of national identity and of values which facilitate social harmony and cooperative effort. Along with this observation, it should be noted that historical study can produce intercultural understanding by tracing cultural differences to their origins in the past. A third perspective on the need for historical awareness is summed up in the aphorism that he who fails to learn from the past is doomed to repeat it. Teachers of today's students know well that those students do not usually approach questions of war and peace with any knowledge of historic concord, aggression, or cruelty, including even events so recent as Nazi and Stalinist terror.

The requirement of a course which is historical in method and content presumes that "history" designates a sequence of past events or a narrative whose intent or effect is to represent such a sequence. The requirement also presumes that these are human events and that history includes all that has been felt, thought, imagined, said, and done by human beings. The opportunities for nurturing historical consciousness are nearly unlimited. History is present in the languages, art, music, literatures, philosophy, religion, and the natural sciences, as well as in the social science traditionally called History.

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

ASU--[H] CRITERIA			
THE HISTORICAL AWARENESS [H] COURSE MUST MEET THE FOLLOWING CRITERIA:			
YES	NO		Identify Documentation Submitted
<input checked="" type="checkbox"/>	<input type="checkbox"/>	1. History is a major focus of the course.	course syllabus + calendar
<input checked="" type="checkbox"/>	<input type="checkbox"/>	2. The course examines and explains human development as a sequence of events.	course syllabus + calendar
<input checked="" type="checkbox"/>	<input type="checkbox"/>	3. There is a disciplined systematic examination of human institutions as they change over time.	course syllabus + calendar
<input checked="" type="checkbox"/>	<input type="checkbox"/>	4. The course examines the relationship among events, ideas, and artifacts and the broad social, political and economic context.	course syllabus + calendar
		THE FOLLOWING ARE NOT ACCEPTABLE:	
		• Courses in which there is only chronological organization.	
		• Courses which are exclusively the history of a field of study or of a field of artistic or professional endeavor.	
		• Courses whose subject areas merely occurred in the past.	

Course Prefix	Number	Title	Designation
SSH	100	Introduction to Global Health	H

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)
① History is a major focus of the course	Global health is the study of human health differences in past and present environments. Historical relationships between hosts and pathogens are emphasized.	<ul style="list-style-type: none"> ◦ syllabus p. 2, 4 ◦ calendar p. 9-11
② Course examines and explains human development as a sequence of events	Course traces human adaptations (biological, social, and cultural) to pathogens over time.	<ul style="list-style-type: none"> ◦ syllabus p. 2, 4
③ There is a disciplined systematic examination of human institutions as they change over time.	The course covers the emergence of public health and health systems, as well as other social and cultural phenomena.	<ul style="list-style-type: none"> ◦ syllabus p. 2, 4

④ The course examines the relationship among events, ideas, and artifacts and the broad social, political and economic context.

Establishing context is an important part of Global Health studies. The course examines the relationship between disease histories and patterns of social and cultural phenomena.

syllabus p. 2, 4.

INTRODUCTION TO GLOBAL HEALTH SYLLABUS

Course numbers

ASB 100-1001 LEC 82990

SSH 100-1001 LEC 82989

Dates

Aug 25-Dec 9, 2008

Schedule

Mondays, Wednesdays

3:30 – 4:45 PM

Room

Life Sciences A 191 (Tempe)

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TEXTBOOK

Nelson K E, Williams C M 2007 Infectious Disease Epidemiology: Theory and Practice. 2nd Edition. Sudbury: Jone and Bartlett.

INSTRUCTORS

A. Magdalena Hurtado, Ph.D., School of Human Evolution and Social Change (SHESC), 2nd floor, Room 229H, amhurtad@asu.edu; cell phone – 505 507 0957
Office hours: by appointment.

Gerardo Chowell-Puente, Ph.D., School of Human Evolution and Social Change, Matthews Center 2nd floor; Room 203R, gchowell@asu.edu, office telephone number – 480 965 9011

Office hours: by appointment.

TEACHING ASSISTANTS

Will post their contact information and office hours on the Intro to Global Health Blackboard site.

COURSE DESCRIPTION

① Global health is the study of human health differences and similarities in past and present environments, and the ways in which they are patterned by complex human and animal networks and activities across the planet. For the majority of humans, the infectious agents of diseases like tuberculosis, AIDS, malaria, intestinal, skin and respiratory infections not only influence how they grow, feel, act and behave but also influence how they die, how their children die and at what age. And for fewer humans, at least in recent history, cardiovascular disease, cancer, diabetes, obesity, asthma and other chronic health conditions can have a huge influence over their lives and decisions. In this course we will rely on a framework that brings together anthropology, epidemiology and evolutionary theory to explore: 1) How wars between pathogens and humans over nutrients and well-being are ancient and unlikely to end in the near future; 2) How those wars have shaped in part the physiological, immunological and possibly, cognitive responses of humans today, and 3) How those wars have influenced, and have been influenced by the emergence and maintenance of cultural and social phenomena, including health systems. Every lecture and reading assignment in theoretical and empirical areas will feature multiple cultures and societies from one or more continents. In particular, *we will focus on* the "culture of poverty" throughout the modern world and small scale tribal or pre-industrial cultures. ②, ④

GOALS OF THE COURSE

What are the short term goals of this course?

...to learn about human global health patterns by making the information accessible to students with diverse backgrounds, by facilitating interactions with faculty and by sharing with students information about global health programs at the School of Human Evolution and Social Change. The instructors will use a 'transdisciplinary approach'. This means that we will identify complex problems and data and look for new ways to conceptualize and interpret them through multiple disciplinary lenses (anthropology, public health sciences, mathematics, biology, other).

...provide service in some small way to improve the health of people around you during your years as student at ASU (and hopefully beyond).

...master a defined set of competencies in order to perform successfully in academic pursuits designed to improve global health services, or in global health institutions (see 'Competencies, knowledge and skills manual' on the SSH,ASB 100 BB site).

What are the long term goals...?

...to create a **global work force** in all walks of life that will contribute to quality of life improvements throughout the world. ... to apply evidence-based science in order to achieve public health objectives.

What are the prerequisites?

Curiosity and interest in health. Also, a willingness to explore new ideas, anthropological and biological knowledge and mathematical applications regardless of prior experience in those areas. And finally, a willingness to work very hard in order to earn an A in the course. Hard work, honesty, diligence, conscientiousness and collegiality will be rewarded in this course.

BLACKBOARD WEBSITE

The teaching assistants and/or instructors will post the following course materials on the course's website:

Course syllabus
Power point presentations
Study questions
Homework assignments
Exam scores
Grades

HOW TO SUCCEED IN THE COURSE

1. *If you haven't yet, adopt a healthy lifestyle (this class is about health after all): eat lots of fruits, vegetables, proteins, take vitamins, exercise regularly, and get plenty of sleep*
2. *Help improve your cognitive function – take omega-free fatty acid supplements, avoid mind-altering substances and get plenty of sleep*
3. *Don't fall asleep in class*
4. *Don't read the newspaper*
5. *Be prepared – bring a notebook and a writing utensil, TAKE NOTES!*
6. *PAY ATTENTION*

7. *Study everything – the book, the lecture notes, your homework assignments*

6) *Critical thinking foci: Think about how everything that you learn about global health helps you answer the 3 questions of interest in this class:*

- ① • Are wars between pathogens and humans over nutrients and well-being ancient and are they unlikely to end in the near future?
 - What pathogens or human hosts did we talk about?
 - How have those pathogens been at war with human hosts, or have recently engaged in a war with human hosts?
 - How have human hosts ^{been} ~~between~~ at war with those pathogens, or have recently engaged in a war with those pathogens?
- ② • Have the wars between pathogens and human hosts that we talked about today influenced the physiology, immunology and cognition of human hosts today, and if so how?
- ②, ③, ④ • Have the wars between pathogens and human hosts that we talked about today influenced the emergence and maintenance of cultural and social phenomena, and if so how?

7) *Classroom policies: Read and apply all the classroom policies*

8) *Reading assignments: Complete the reading assignments before each class (see the 'CALENDAR' below).*

9) *Homeworks:* Study questions will be posted on BB on Friday. Answer the study questions (this is the material that you will be tested on!) by typing your name, date, study questions in a Word file. Print out 2 copies of your answers. Put one copy into a binder that you will label 'Intro to Global Health' study questions and answers. Take the second copy to class. Turn in the second copy of the document to the TAs in class on Monday. **Due to the large number of students in the class, homeworks will not be returned. Check on BB for your homework score** The TAs will give grade the homeworks based on the following criteria 1) ALL questions must be answered, 2) The answers are written in complete, 3) Answers chosen at random at 'correct'.

Each study question homework assignment is worth 10 points.

10) *Exams:* If you answer all the study questions, turn them into the TA for homework grades, and if you understand what you wrote, you are ready for the exam. You will be required to prepare an 8 X 10 page 'cheat sheet'. You can put as much information into that cheat sheet as you wish. You have to turn in the cheat sheet with the exam, and it is worth 20 points. Exams are also open book, and open 'study question binder'.

All exam questions will be multiple choice.

Here are two examples of the type of multiple choice questions that will be on the exam:

- Solutions to global health problems are as complex as the social, cultural and physical environments in which those problems emerge. During the second half of the course, we learned about such complexities through the lenses of film producers (And the Band Played On), a vector biologist and a conservation advocate from Paraguay, and one of your peers who works in Uganda. From these examples, it is probably fair to conclude that in order to understand the reasons for why young people in many countries are less likely to comply to tuberculosis treatment (and thus contribute to the emergence of drug resistant strains) we must take into account that

1. In some cultures, young people communicate minimally with adults who may be more likely to know something about drug resistance.
2. In many cultures, young people rebel against advice from older people, including medical advice.
3. In most cultures, public health information is not disseminated through sources of information or entertainment that young people prefer.
4. **All of the above.**

- Vector borne diseases are caused by pathogens of many different types; not all are viruses, or bacteria, or protozoa. The causative agent of malaria is a protozoan, Plasmodium falciparum; that of dengue fever is caused by a flavivirus in the same family of the pathogen that causes yellow fever, and influenza is a virus in the Orthomyxoviridae family. Vector borne diseases are caused by pathogens of many different types; not all are viruses, or bacteria, or protozoa. The causative agent of malaria is a protozoan, Plasmodium falciparum; that of dengue fever is caused by a flavivirus in the same family of the pathogen that causes yellow fever, and influenza is a virus in the Orthomyxoviridae family. For a vector borne disease that may have an $R_0=2$ in a given setting, what would be the minimum fraction of a susceptible population that would need to be vaccinated with a vaccine efficacy of 90% according to the SIR model.

- A) 50%
- B) 46%
- C) 57%**

D) 64%

Grading

Category	Points
Homeworks, 14 X 10 points each	140
Exams, 2 x 100 points each	200

Attendance (28 lectures x 8 points each)

224

letter grade	percentage
A+	95 plus
A	90-94
A-	84-89
B+	79-83
B	74-78
B-	70-73
C+	66-69
C	63-65
C-	60-62
D+	55-59
D	51-54
D-	46-50
F	45 or fewer

Make-up policies

Students who must miss class should submit a request for an excused absence to Drs Hurtado and Chowell-Puente.

The note should include -

Name:

Email address:
Telephone number:
Reason for the absence:

The student must then write a one-page summary of the material covered in class on the day of the absence. This summary should be based on the Power Point slides presented, the reading assignment, and study questions that correspond to the missed lecture. The one-page summary should be turned in to a TA within 2 weeks of the excused absence.

Students who complete these steps will get full credit for the class or classes they missed.

CLASSROOM POLICIES

Attendance and tardiness

At the start of each class, one of the Teaching Assistants will circulate a 'sign-in' sheet. Write and sign your name (see 'Grading Policy').

If you arrive late, please enter the room quietly. If you have to leave early, please let one of the instructors know at the beginning of class.

Civility/code of conduct

8. Don't fall asleep in class
9. Don't read the newspaper in class, or log on to the internet
10. Cell phones and pagers – turn them to vibrate. If you must send a text message urgently, or respond to an urgent call, please leave the classroom to do so.
11. Students can use calculators and computer laptops in class for as long as the equipment is used for class-related activities and note-taking.
12. Students can tape record the lectures.

ACADEMIC INTEGRITY

Please refer to http://www.asu.edu/studentaffairs/studentlife/judicial/academic_integrity.htm

Student Obligations

Each student must act with honesty and integrity, and must respect the rights of others in carrying out all academic assignments. A student may be found to have engaged in academic dishonesty if, in connection with any Academic Evaluation or academic or

research assignment (including a paid research position), he or she:

- A. Engages in any form of academic deceit;
- B. Refers to materials or sources or uses devices (e.g., computer disks, audio recorders, camera phones, text messages, crib sheets, calculators, solution manuals, materials from previous classes, or commercial research services) not authorized by the instructor for use during the Academic Evaluation or assignment;
- C. Possesses, reviews, buys, sells, obtains, or uses, without appropriate authorization, any materials intended to be used for an Academic Evaluation or assignment in advance of its administration;
- D. Acts as a substitute for another person in any Academic Evaluation or assignment;
- E. Uses a substitute in any Academic Evaluation or assignment;
- F. Depends on the aid of others, including other students or tutors, in connection with any Academic Evaluation or assignment to the extent that the work is not representative of the student's abilities;
- G. Provides inappropriate aid to another person in connection with any Academic Evaluation or assignment, including the unauthorized use of camera phones, text messages, photocopies, notes or other means to copy or photograph materials used or intended for Academic Evaluation;
- H. Engages in Plagiarism;
- I. Uses materials from the Internet or any other source without full and appropriate attribution;
- J. Permits his or her work to be submitted by another person in connection with any Academic Evaluation or assignment, without authorization;
- K. Claims credit for or submits work done by another;
- L. Signs an attendance sheet for another student, allows another student to sign on the student's behalf, or otherwise participates in gaining credit for attendance for oneself or another without actually attending;
- M. Falsifying or misrepresenting hours or activities in relationship to an internship, externship, field experience, clinical activity or similar activity; or
- N. Attempts to influence or change any Academic Evaluation, assignment or academic record for reasons having no relevance to academic achievement.

STUDENT SUPPORT SERVICES

Students who have to make special arrangements for whatever reason should contact Drs. Hurtado and Chowell-Puente by phone or email immediately.

ASU also offers important services through the Learning Resources Center (www.asu.edu/lrc), Counseling (www.asu.edu/counseling_center/), and the Disability Resource Center ([ww.asu.edu/drc/](http://www.asu.edu/drc/)).

In addition, students who would like to learn more about educational opportunities and programs in the School of Human Evolution and Social Change should contact the school's undergraduate advisor, Alissa Ruth (Alissa.Ruth@asu.edu) or the undergraduate director, A. Magdalena Hurtado (amhurtad@asu.edu).

“INTRODUCTION TO GLOBAL HEALTH” AT A GLANCE

Italicized – competency; reading – Infectious disease epidemiology textbook

PART I

Wk #, Lect #	Monday	Hmwk	Wednesday	Homework
INTRODUCTION				
<i>Global health workers working in the trenches in the late 90s; Syllabus, overview, competencies, why science is important, homeworks and exams</i>				
1, 0	The Coming Plague (Aug 25) <i>All Africa, South America, U.S.</i>	Go over class notes	The Coming Plague (Aug 27) <i>All Africa, South America, U.S.</i>	Go over class notes
2, 1	No class (Sept 1)	None	Overview of the course (Sept 3) AMH Syllabus, expectations <i>Not applicable</i>	<u>Homework 1: the coming plague questions.</u> <u>HMWK 1</u>
HOSTS: Observations and theory, the evolutionary ecology of humans and health				
3, 2 and 3	① Principles of Evolutionary Global Health (Sept 8) AMH ① Principles of evolutionary global health <i>International survey of health, indigenous peoples</i>	Reading: pps. 865-872, 378, 687-689.	Hypercooperation, public goods problems and global health (Sept 10) AMH ① Principles of evolutionary global health <i>Hunter gatherers, several continents</i>	<u>Homework 2: LECTURE & TEXTBOOK QUESTIONS</u>
4, 4 and 5	Natural selection and global health (Sept 15) AMH ① Principles of human evolutionary ecology <i>Populations in all continents</i>	Reading: Chapter 13	Immunology and immune response, drug resistant strains (Sept 17) AMH ① Principles of host-pathogen coevolution <i>Human populations globally</i>	<u>Homework 3: LECTURE & TEXTBOOK QUESTIONS</u>
PATHOGENS: <i>The reproduction rate of infections is a measure of the fitness of pathogens in human populations; mathematical models show how intentional and unintentional human behavior can hypothetically, or actually affect the fitness of pathogens; immunological responses have been shaped by millions of years of co-adaptation to pathogens; pathogens fight back by evolving immune system-resistant and drug resistant strains</i>				

5, 6 and 7	<p>Mathematical Epidemiology (Sept 22) GC <i>Principles of host-pathogen coevolution; prevention effectiveness</i> <i>Sweden, Africa, U.S., Uruguay, China, Switzerland, Portland</i></p>		<p>Mathematical Epidemiology (Sept 24) GC <i>Principles of host-pathogen coevolution; Prevention Effectiveness</i> <i>Sweden, Africa, U.S., Uruguay, China, Switzerland, Portland</i></p>	<u>Homework 4:</u>
6, 8 and 9	<p>GIS (Sept 29) GC <i>Principles of host-pathogen coevolution; prevention effectiveness</i> <i>Mexico, U.S., England, Peru</i></p>		<p>Vaccines (Oct 1) GC <i>Principles of host-pathogen coevolution; prevention effectiveness, computer technology</i> <i>France, Australia, U.S., England</i></p>	<u>Homework 5:</u>
<p>HOSTS AND PATHOGENS: <i>Health patterns are the outcome of the interplay between hosts and pathogens in past and present environments; surveillance, epidemiological and outbreak investigations describe factors associated with the expression of <u>health phenotypes</u></i></p>				
7, 10 and 11	<p>Global health past and present – bioarcheology and epidemiology (Oct 6) AMH <i>Epidemiology of disease and injury</i> <i>Egypt, fertile crescent, Greek empire, all human cultures and language families</i></p>	<p><u>Reading:</u></p>	<p>Principles of epidemiology (Oct 8) AMH <i>Epidemiologic methods</i> <i>New Guinea, Russia, Africa, China, U.S.</i></p>	<u>Homework 6:</u>
8, 12 and 13	<p>Science and epidemiological research design (Oct 13) AMH <i>Epidemiologic Methods and Biostatistics</i> <i>Americas, indigenous peoples, entire world</i></p>	<p><u>Reading:</u></p>	<p>Surveillance (Oct 15) AMH <i>Surveillance</i> <i>Americas, indigenous peoples, entire world</i></p>	<u>Homework 7:</u>
9, 14 and 15	<p>An ancient pathogen: Helminths (Oct 20) <i>Epidemiology of disease and injury, prevention effectiveness GC</i> <i>Pre-industrial societies, indigenous peoples</i></p>	<p><u>Prepare for review session</u></p>	<p>REVIEW (Oct 22)</p>	<u>Homework 8:</u>
<p align="center">“INTRODUCTION TO GLOBAL HEALTH” AT A GLANCE <i>Italicized – competency</i> PART II</p>				

10	MIDTERM (Oct 27)	<u>Reading:</u>	Reproduction and sexually transmitted diseases: HIV (Oct 29) And the Band Played On	<u>Homework 9:</u>
11, 16 and 17	Birds, pigs, sociality and airborne transmission. Influenza (Nov 3) GC <i>Epidemiology of dz..., prevention effectiveness China, U.S., France, Australia</i>	<u>Reading:</u>	Birds, pigs, sociality and airborne transmission. Influenza (Nov 5) GC <i>Epidemiology of dz..., prevention effectiveness China, U.S., France, Australia</i>	<u>Homework 10:</u>
12, 18 and 19	Cows, monkeys, sociality and airborne transmission: tuberculosis (Nov 10) <i>Epidemiology of dz..., GC Prevention effectiveness Paraguay, indigenous peoples</i>	<u>Reading:</u>	Cows, monkeys, sociality and airborne transmission: tuberculosis (Nov 12) GC <i>Epidemiology of dz., Prevention effectiveness Paraguay, indigenous peoples</i>	<u>Homework 11:</u>
13, 20 and 21	Insects, monkeys and yellow fever (Nov 17) GC <i>Epidemiology of dz, Outbreak, Prevention effectiveness Paraguay, South America</i>	<u>Reading:</u>	Insects, sanitation and dengue (Nov 19) <i>Epidemiology of dz, Prevention GC effectiveness Peru, Paraguay, Venezuela</i>	<u>Homework 12:</u>
14, 22 and 23	Host-environment 'mismatch' and chronic diseases: Obesity KRH (Nov 24) <i>Modern peoples</i>	<u>Reading:</u>	THANKSGIVING HOLIDAY (Nov 26)	<u>Homework 13:</u>
15, 24 and 25	Public goods dilemmas and global health: A class experiment MJ (Dec 1) <i>Principles of evolutionary global health</i>	<u>Reading:</u>	REVIEW (Dec 3)	<u>Homework 14:</u>
16	FINAL EXAM (Dec 8)			