PHW212: Foundations of Global Health (UC Berkeley-UCSF co-created course)
Course Syllabus (Spring 2019)
Draft - Subject to change

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Course Description

This course introduces students to the basic principles of global public health that are used to improve population health at all levels. The course will start with an introduction to essential concepts from public health disciplines that are the foundations of global health practice. Students will then apply these concepts to current global health challenges through course activities, assignments, and readings that will provide a real world context. Global health experts will share their experiences and lessons learned from implementing global health research and programs. Throughout the course, students will gain critical and creative-thinking experience in applying tools and frameworks towards addressing diverse global health needs. Student will be encouraged to relate course work to their professional interests.

Course Goals

- Define global health and globalization, and describe the basic tenets, principles and scope of global public health
- Identify major global health threats including infectious disease, non-communicable disease; and critically appraise strategies to respond (i.e., vaccines, prevention, control, etc.)
- Describe the roles of diverse members of the global health community such as key bilateral/multilateral institutions, political bodies, NGOs that contribute to health promotion and policies
- Evaluate interventions using different frameworks that are designed to improve global health
- Identify the effects of globalization and urbanization on population health, and transdisciplinary global health response
- Understand the major causes of maternal and child mortality and prevention approaches
- Be prepared to participate in complex global health work using a sound, ethical approach
- Analyze the global health connection between humans and the environment (air, water, food)
- Apply knowledge of global health governance and decision making at different levels to global health-oriented policy, research, and action.
Course Format

This 8-week course is organized into weekly topics, discussions and small group activities. The course will use narrated PowerPoint lectures, interviews with global health experts, guided readings and activities to introduce students to each week’s topics. Students will participate in facilitated discussions and small group activities to explore course content and acquire course competencies. A group project will provide an opportunity to apply course concepts to global health areas of professional relevance to students.

Course Schedule

Week 1: Context: What is global health and development? (Instructor: George Rutherford)

Tuesday, 1/9/18 to Monday, 1/15/18

<table>
<thead>
<tr>
<th>Topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>● <em>Introduction to course (Art and George Rutherford)</em></td>
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<tr>
<td>● Topic 1: Principles, definitions, and core areas of Global Health</td>
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<tr>
<td>● Topic 2: Public health challenges and successes of the 19th and 20th century</td>
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<tr>
<td>● Topic 3: Disease metrics: overview of the burden of disease and measuring health</td>
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<tr>
<td>● Topic 4: Health as a component of development, health-related development strategies and targets including the social determinants of health and Sustainable Development Goals</td>
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<table>
<thead>
<tr>
<th>Readings</th>
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<tbody>
<tr>
<td>● Friedman and Gostin. The United Nations Sustainable Development Goals: Achieving the vision of global health with justice.</td>
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<table>
<thead>
<tr>
<th>Discussions and Small Group Activities</th>
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</thead>
<tbody>
<tr>
<td>● <strong>Eradicating disease: case study and reflection exercise</strong></td>
</tr>
<tr>
<td>● Read <em>Eradicating smallpox</em> (Levine, Case 1). This is an important milestone in public health history.</td>
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<tr>
<td>● Explore the following sources of online health data/information:</td>
</tr>
</tbody>
</table>
Using real world data and information from these reputable sources, identify current global infectious disease priority areas, and areas for public health intervention.

We will break into 6 small discussion groups (4-5 students each). With your group, discuss:

- What were the key reasons why the eradication of smallpox was successful?
- Share what you found on the websites you explored, focusing on specific infectious disease challenges.
- Compare the Smallpox case study and lessons learned. How can they apply to current day infectious diseases?
- Make a list of important infectious disease response mechanisms, frameworks, philosophies, and approaches that transcend time and that are necessary to respond to global health challenges.

Assignments (due 1/15/18)

Reflection on global health (5%)

Final Group Forum/Project

Please complete survey on areas of interest/background and work hours

Week 2: Overview of epidemiology and infectious diseases (Instructor: Art Reingold)

Tuesday, 1/16/18 to Monday, 1/22/18

Topics

- Weekly Overview
- Topic 1: Overview of epidemiology
- Topic 2: Infectious disease prevention, surveillance, and control strategies
- Topic 3: Vaccines
- Topic 4: Pandemics/Outbreaks

Readings

Discussions and Small Group Activities

1. Understand the landscape of infectious disease response
This week, students will explore disease outbreaks through case studies. They will learn how to understand prevention, response, and surveillance needs for the outbreak. Activities will include reading scientific data, identifying who to contact in the event of an outbreak; and exploring the general regulations/ process of handling such cases. Activities will discuss risk, and how to summarize information on infectious disease incidence/prevalence/risk.

You will be assigned a case study to read:
- Eliminating polio in Haiti
- Empowering communities to tackle HIV: India’s Avahan program (G&T, Case 21)
- A fresh start for a bright future: Kenya’s school-based deworming program (G&T, Case 6)

You will then be assigned to a discussion group that will include a mix of group members who have read different articles for comparative discussion. This will be facilitated.

Assignments (due 1/22/18)
- Peruse Lancet Global Health Audio: http://www.thelancet.com/globalhealth/audio. Find a couple podcasts of great interest to you, that you can use as inspiration for your policy brief.

Final Group Forum/Project
- Description of final project will be given -- detailed group project guidelines will be provided

Week 3: Non-Communicable Diseases & Primary Health Care (Hildy Fong)

Tuesday, 1/23/18 to Monday, 1/29/18

Topics
- Weekly Overview
- Topic 1: Global Burden of NCDs: What are they? Where are they? (Epidemiological Transition)
  - NCD’s quiz (self check quiz - multiple choice) etc. Can see “our recommended answer”
- Topic 2: NCDs risk factors
- Topic 3: Primary health care systems
- Topic 4: Health policy and advocacy for NCD’s (Workshop: how to write a policy brief).

Readings

### Discussions and Small Group Activities

**How to write a policy brief!**

- We’re gearing up for Week 4’s assignment of a Policy Brief, which will be due on Monday, 2/5/18.
- For this assignment, you will be asked to write a policy brief based on your plan/background research that is 2 pages (1 page printed front and back) addressing a global public health challenge in a country or region of your choice. You should be proposing how to improve the health or prevent the illness of a specific vulnerable, at-risk population or community in a low or middle-income country or community.
- In this small group activity, we will discuss how to write a policy brief, and look at examples, techniques, and strategies to persuasively communicate important global health issues through policy briefs.

**Final Group Project/Assignment**

- **Final Project Groups are assigned by the beginning of this week**
- (Review materials for the Final Project from last week, if necessary)
- Start brainstorming w/ your group about the global health challenge you will be tackling for your final project.
- Together, decide on a global health research topic, target population, and country/region.
- Start discussion around roles, etc. Organize structure to their group (i.e., posting action items, scheduling meetings).
- Due this week: Turn in your global health topic, a short abstract of your final group project, and a rough plan of action of how often/when your group will meet.
**Week 4: Global Health and the Environment (Kirk Smith/Ajay Pillarisetti) (1/30/18-2/5/18)**

### Topics
- Weekly Overview
- Topic 1: Global Environmental Health Introduction
- Topic 2: Global Environmental Health: Focus on air pollution, climate change and health

### Readings
- Bain RE, Gundry SW, Wright JA, Yang H, Pedley S, Bartram JK. Accounting for water quality in monitoring access to safe drinking-water as part of the Millennium Development Goals: lessons from five countries. Bull World Health Organ 2012; 90:228-35A.

### Discussions and Small Group Activities

#### Program Evaluation & PlayPump
This week’s activities explore the potential pitfalls and challenges of private and public programs addressing environmental health using the CDC program evaluation framework. Students will learn how to communicate and suggest alternative strategies and program pivots.
- PlayPump Investigation Clip (Newshour)
- Exercise
- Discussion

### Assignments
- Policy Brief is due at the end of this week (2/5/18).

### Final Group Forum
- Figure out roles/responsibilities as per the detailed outline for your deliverable. Have a group discussion around roles, etc. Organize structure to their group (i.e., posting action items, scheduling meetings). Draft an “Agreement” about posting action items, scheduling meetings, etc.

**Week 5: Maternal and Child Health & Nutrition (Ndola Prata/Dilys Walker)**

Tuesday, 2/6/18 through Monday, 2/12/18
## Topics

- Weekly Overview
- Topic 1: Preventing maternal morbidity/mortality (Ndola Prata)
- Topic 2: Reproductive health/family planning (Ndola Prata)
- Topic 3: Ensuring newborn survival (Dilys Walker)

## Readings

- Maternal mortality in developing countries (Prata et al.)

## Discussions and Small Group Activities

N/A

## Assignments

- Mid-course reflection blog (5%)

## Final Group Forum

- Work with group towards the mini research proposal, due end of Wk 5 (10%)

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**Week 6: Globalization, urbanization and migration (Instructor: George Rutherford)**

**Tuesday, 2/13/18 through Monday, 2/19/18**

## Topics

- Topic 1: Mobility and migration → migrant Health
- Topic 2: Complex humanitarian emergencies
- Topic 3: Work force and brain drain
- Topic 4: Global markets, communications and information technology

## Readings

**Discussions and Small Group Activities**

**Videos and film in global health/human-centered design**

- Slum Health
- Population growth in the Sahel
- Apply design thinking and human-centered design to program development. Students will learn and utilize design-thinking methods and tools to ideate, and to create a program to address slum health.

**Assignments**

- Proctored Assessment (midterm, Wk 1-5) (20%)
HIV prevention transformed: the new prevention research agenda (Padian et al.)

**Discussions and Small Group Activities**

- Work on group project

**Assignments**

- Group research proposal is due 3/5/18

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**Week 8: Global health governance and partnerships in global health (George Rutherford)**

2/27/18-3/4/18

### Topics

- Topic 1: Key institutions, their agendas, role and responsibilities, legal framework for global health, health-related international treaties and agreements, intellectual property, World Trade Agreement
- Topic 2: International collaboration, bilateral aid organizations, types and management of projects, principles and ethics, evaluation, sustainability and scale up, global public-private partnerships
- Topic 3: Role of technology
- Topic 4: R&D

### Readings


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**Discussions and Small Group Activities**

- Work with group on group project

**Assignments**

- End of course reflection (video): What would you do if you had $10 million to address global health?
- Final group project is due

**Course Grading**

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Week</th>
<th>Grade Percentage</th>
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<tbody>
<tr>
<td>Reflection Blog</td>
<td>Week 1</td>
<td>5 %</td>
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<tr>
<td></td>
<td>Week 5</td>
<td>5 %</td>
</tr>
<tr>
<td></td>
<td>Week 8</td>
<td>5 %</td>
</tr>
<tr>
<td>Policy brief: Infectious Diseases or Non Communicable Disease</td>
<td>Week 4</td>
<td>15 %</td>
</tr>
<tr>
<td>Proctored Midterm exam</td>
<td>Week 6</td>
<td>20 %</td>
</tr>
<tr>
<td>Group assignment (Part 1 and Part 2): Mini research proposal</td>
<td>Week 7</td>
<td>10 %</td>
</tr>
<tr>
<td></td>
<td>Week 8</td>
<td>25 %</td>
</tr>
<tr>
<td>Participation and Discussion</td>
<td>Weeks 1 - 8</td>
<td>15 %</td>
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**Course Requirements**

**Required Course Materials**

**Microphone/headset for your computer**

Videos and other resources are found on weekly course pages. A weekly course reader which includes video transcripts and course readings will also be available on the course site for you to download.

During this course, you will be provided with links to PDF files of articles and other materials from the UC Berkeley Library Collection. Please make sure you understand and follow the University of California Library Conditions of Use.
Completion of Course Modules

Students are expected to complete all modules, including viewing all lectures; completing all required readings and individual activities; and fully participating in class activities.

Participation in Discussions and Small Group Activities

Each week through discussion and small group activities, students will explore

Reflection Blogs

At the beginning, middle and end of the course, students will contribute to blog posts reflecting course topics.

Policy Briefs

For this assignment, students will prepare a 2 page written policy brief that incorporates visual tools/data to illustrate a global health problem and policy recommendation in either the area of infectious disease or non-communicable/chronic disease.

Final Group Project

This course's final group project is an opportunity for you to work weekly in a group towards an original, creative research proposal. We believe strongly that all good global health citizens should be able to understand how to read and write a good proposal that is evidence-based and scientifically oriented. In a nutshell, we will have some activity/assignment for the group project each week. We will help you work with your group to get started (we assign the groups based on interest), and we provide resources along the way as you build out your proposal.

   Part 1: Research proposal topic and group project plan (due at the end of Week 3, not graded)
   Part 2: Mini research proposal (due at the end of Week 5, graded - 10%)
   Part 3: Full research proposal (due at the end of Week 8, graded - 25%)

Proctored Midterm Exam

Dates of the final exam are posted in the OOMPH Student Hub Academic Calendar. Details about the on campus offering of the course are found on the Student Hub On-Campus Exam Proctoring Schedule. Details about the length of the exam and the materials you will be allowed to use during the exam will be posted on the course site.

Required Reading

text and the second edition. Individual cases are available on line at
http://www.cgdev.org/page/case-studies. Referred to as Levine below.

   Washington, DC: Center for Global Development, 2016. This book needs to be purchased, and its
   case studies are not available on line. Information supplementing the case studies as well as
   links to purchase the book – hard copy or kindle version is available at
   http://millionssaved.cgdev.org/. Referred to as G&T below.

3. Online articles, for each module which can be downloaded through provided URL links.

Suggested materials:

2. The Lancet and The Economist regularly carry articles and commentary on globalization and
   health.