**Practical Approaches to Global Health Research**

MED 226 / INTLPOL 290 / HRP 237

**Course Description**

How do you come up with an idea for a useful research project in a low resource setting? How do you develop a research question, prepare a concept note, and get your project funded? How do you manage personnel in the field, complex cultural situations, and unexpected problems? How do you create a sampling strategy, select a study design, and ensure ethical conduct with human subjects? This course takes students through the process of health research in under-resourced countries from the development of the initial research question and literature review to securing support and detailed planning for field work. Students progressively develop and receive weekly feedback on a concept note to support a funding proposal addressing a research question of their choosing. The course is aimed at graduate students interested in global health research, though students of all disciplines interested in practical methods for research are welcome. Undergraduates who have completed 85 units or more may enroll with instructor consent. Sign up for 1 unit credit to audit class sessions or 3 units to both participate in classes and develop a concept note.

**Course Objectives**

By the end of the course, the student will be able to:

1. Consider an issue with implications for global health and develop a tractable research question, that, if answered, would contribute information to help improve the situation.
2. Draft a concept note for a funding proposal to address a global health research question that includes rationale for the specific study question, appropriate study methods, sample size, cross cultural collaboration, human subjects review and budget.

**Target students**

Stanford graduate students in any discipline whose research interest engages a dimension of global health. Topics included under the heading of “global health” are broadly conceived. The World Health Organization defines health as, “a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity.” In additional to biologically based topics, environmental exposures, social or institutional arrangements and elements of the built environment that contribute to health or illness could all generate productive study questions. Undergraduates in their junior and senior year who are interested in learning global health research methods, who will have an opportunity to apply the skills taught in the course, and who are willing to commit the time for a graduate level course are welcome. If an upperclassman undergraduate is interested in enrolling, s/he should e-mail Dr. Luby ([sluby@stanford.edu](mailto:sluby@stanford.edu)), explaining her/his interest in the course, his/her opportunity for research and the specific study question s/he is interested in building the class work around.

**Lead Instructor**

[Stephen Luby](https://woods.stanford.edu/about/woods-faculty/stephen-luby), MD joined the Stanford faculty as a Professor of Infectious Diseases and as Director of Research of the Center for Innovation and Global Health in 2012. He is also a Senior Fellow at the Freeman Spogli Institute for International Studies and a Senior Fellow at the Woods Institute for the Environment. Between 2004 and August 2012, Dr. Luby served as the Bangladesh Country Director for the US Centers for Disease Control and Prevention (CDC). He was secunded from CDC and posted into the International Centre for Diarrhoeal Disease Research, Bangladesh (ICDDR,B) where he directed the Centre for Communicable Diseases. In addition to earlier work at CDC, Dr. Luby also lived for five years in Karachi, Pakistan where he led the Epidemiology Unit of the Community Health Sciences Department at the Aga Khan University in Karachi, Pakistan. Much of his research efforts have focused on applying research tools to reduce the risk of communicable diseases in low income countries. Dr. Luby has authored over 400 scientific articles and coached >50 early career scientists to publish their initial first-author publication in an international scientific journal. The best way to reach Dr. Luby is by email ([sluby@stanford.edu](mailto:sluby@stanford.edu)).

**Teaching Assistants**

Allie Sherris ([asherris@stanford.edu](mailto:asherris@stanford.edu)) is a 4th year PhD candidate in Emmett Interdisciplinary Program in Environment and Resources with global health fieldwork experience in Peru and Bangladesh.

Jenna Forsyth, MS, PhD ([jforsyth@stanford.edu](mailto:jforsyth@stanford.edu)) completed her PhD with Stanford’s Emmett Interdisciplinary Program in Environment and Resources and obtained her Master's in Civil and Environmental Engineering from the University of Washington. She is working as a postdoctoral scholar with the Woods Institute for the Environment where she is focusing on interventions to reduce the exposure of lead to people living in Bangladesh.

Winter quarter 2020

Course begins on January 6

* 10 weeks
* 3:00 PM – 4:20 PM Monday, Wednesday, Fridays
* Classroom CCSR 4205

**Pedagogic approach**

The course is built around students developing their own concept note for a study that they intend to implement. The instructor will formally present on the key components of a global health research project and the skills that global health researchers need during two of the class sessions each week. The formal classroom session will be complemented by small group sessions led by the teaching assistants. The small group sessions will explore relevant literature, reinforce lecture concepts, and allow students to critique each other’s work. Classmates and teaching assistants will help students understand how the ideas discussed relate to the students’ own concept note. Each week the student will draft the section of the concept note covered during the recent sessions and submit this for review. The student will receive weekly feedback from the instructor/teaching assistant to provide suggestions on how to further develop their note.

**Grading**

* For students taking the course for 3 credits:
  + Each section of the concept note will be graded every week on its stage of development, against a standard of what is viewed by the instructor as compelling for a funding proposal.
    - This interim grade and a detailed critique will be provided to the student each week.
    - The instructor and TAs will neither grade nor provide feedback on assignments from students who were absent from class sessions in the preceding week (unless this was the student’s first / only absence)
    - The instructor and TAs will review and grade assignments in the order they were submitted. All assignments that have been submitted by the deadline will be reviewed and graded. Late assignments may or may not be reviewed and graded.
  + The grade for each section will be updated based on further development and response to criticism
  + The final grade is based on the final version of the concept note
    - 10 points each for each of the 16 sections of the concept note (160 points)
    - 6 points for each of the 7 small group sessions (28 points). You will receive 3 points for submitting the draft section of your concept note by the due date and 3 points for actively participating in the sessions.
    - Total 202 points
* For students taking the course for 1 credit
  + Students will be graded for each class session on both attendance and participation.
  + They will review and provide feedback on fellow students concept notes
  + If they choose, they may develop some components of their own concept note, e.g. working to develop a study question and rationale. This is not required, but if submitted, they will receive feedback from fellow students and the instructor for this work.
  + The grade will be based on.
    - Participation in each session (3 points) 84 points
    - Feedback to fellow students and instructor 20 points
    - Total 104 points
* Grade scale:
  + >94% : A
  + 90 – 94% : A-
  + 85 – <90% : B+
  + 80 – <85% : B
  + 70 – <80% : C
  + 60 – <70%: D

**Limits**

Our focus will be on the form of scientific reasoning and the technical issues and persuasiveness of a coherent and sound proposal. We will not be topic experts in each of the study questions, so students might benefit from seeking out topic expert input as well. Nevertheless, a generalist is a good person to provide feedback on a proposal, because generalists, rather than topic experts, tend to make funding decisions.

**Students with Documented Disabilities**

Students who may need an academic accommodation based on the impact of a disability must initiate the request with the Office of Accessible Education (OAE). Professional staff will evaluate the request with required documentation, recommend reasonable accommodations, and prepare an Accommodation Letter for faculty. Unless the student has a temporary disability, Accommodation letters are issued for the entire academic year. Students should contact the OAE as soon as possible since timely notice is needed to coordinate accommodations. The OAE is located at 563 Salvatierra Walk (phone: 723-1066, URL: <https://oae.stanford.edu/>.