

**College of Public Health & Health Professions PHC 6445
Global Health and Development II**

Syllabus Spring, 2021

Time: Monday 7:25-10:25.

Physical Location: HPNP G-114.

Virtual Location: Passcode 993663.

<https://ufl.zoom.us/j/96965090504?pwd=NE1aUkVmWVZGWjRPUW55cnhFZGdBOT09>

Credits: 3

Faculty

Eric Nelson, MD PhD Tel: 352-294-8536
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Office Hours: Monday 3:00-5:00 pm EPI 273 (confirm via email with K. Berquist at kberquist@ufl.edu)

Course Overview or Purpose

Global Health and Development II provides essential CV building skills for a successful career in Global Health (GH) and Development. The course leverages theory presented in Global Health and Dev I (not a pre-requisite). The syllabus covers three topic areas: (i) **Ethics:** students will take both the online NIH human subjects training course and the CITI human subjects training course. The certificates from these courses (at least one) are requirements for all IRB associated research. Specific global health topics in these courses will be explored in small group and didactic settings. After ‘certification’, students will be engaged with several speakers who will highlight ethical challenges they face internationally. (ii) **Research design:** While classical study designs (e.g. pre/post, RCTs) are valuable, global health scientists are developing powerful research designs that accommodate for challenges in field research (e.g. step-wedged). Each of these designs will be visited by reading a representative primary publication, and student will write a grant-ready specific aims page and research strategy that will highlight their understanding of ethics and design challenges. (iii) **Data collection:** The research strategy will be made practical by developing a survey on a mobile device that one would deploy to deliver the proposal. To do this, an expert in REDcap and ODK will guide student groups on establishing a mobile phone based IRB compliant survey. Students will finish with two ethic certificates, knowledge of research design in difficult field settings and skills to put the ideas into practice via robust mobile data collection.

Course Objectives

Upon successful completion of the course, students will / will be able to:

1. Have in depth understanding ethical principles to global health (GH) research.
2. Hold certificate(s) for human studies research (e.g. NIH human subjects training course)
3. Identify, discuss, and illustrate contrasting ethical challenges in GH research.

4. Identify core strategies for sampling in difficult research settings.
5. Identify optimal research designs that enable controlled studies but address logistical constraints.
6. Convey a formal 7 page IRB protocol that covers a novel research topic of interest with a controlled research design that follows ethical constraints.
7. Gain a working understanding of screening forms and case report forms.
8. Gain a working understanding of mobile data collection tools (e.g. REDCap, ODK, Kobotu).
9. As a group, build a mobile data collection tool that address the aims of the research proposal.

Last revised 1/4/2021

Course Materials

Readings will be drawn from current published literature in public health and development.

Class participation

As a graduate class, all students are expected to attend and actively participate in class. While in class, do not use electronic devices, including phones, tablets, and laptop computers, for purposes other than those relating to the class. In virtual settings, the video is expected to be 'on' and distracting activities (e.g. checking email) are not allowed.

Evaluation

Overview:

- 5%. Completion of ethical certificate (s) and brief ethics commentary.
- 5%. Two-page compare/contrast essay on one ethical conflict in the training modules or based on guest presentation (s).
- 20%. Mid-term exam on research design (in class)
- 30%. Individual IRB protocol and presentation
 - Specific aims
 - Research protocol
 - Data collection tool
 - IRB PDF
- 20%. Individual presentation of proposal with demonstration of REDCAP
- 10%. Discussion leader of a journal article (lead/ co-lead one class session)
- 10%. Class attendance.

Commentary: Brief essay on strengths and weaknesses of foreign financial aid on local economics.

Compare/ contrast essay. This is a short 2-page compare/contrast essay to identify a topic with in the training materials that might not be simply defined when working in a global health setting. Format will be a thesis statement, background, compare/contrast section, and conclusion. Assignments is due before class on the week that they are listed.

Mid-term exam. This is designed for you to test your understanding of GH research design principles in difficult field settings (in class). The week. Prior to the exam, the core elements of the exam will be discussed.

Individual IRB protocol. Each student will develop an IRB protocol. It will consist of a 1 page specific aims page, a 1 page introduction, then a 5-8 page methods section that patterns the specific aims. A bibliography (e.g. EndNote) is required but is not part of the page requirement of 7-10 pages. Margins are 0.5 (top/bottom/sides) spaced 1.5 and Arial 11 pt. In the appendix, attach the paper data collection tool that was used to make the redcap site. The student will add the IRB protocol as a PDF to a UF myIRB application. This assignment will replace a final exam and will be due prior to individual presentations.

Individual presentations. Each group will be required to equitably present their IRB proposal. The survey tool (electronic) will be tested during the presentation.

Discussion leader. For several weeks, a team of students will lead a class discussion on the empirical readings. Students should synthesize readings sufficient to highlight key take-away messages and raise critical questions the empirical readings through discussion with classmates. Approximately 20 minutes of each class will be allocated for such discussion. While visual aids are ok for essential data figures, full power point presentations are not recommended.

Class participation. Consistent with the spirit of graduate education and the interactive nature of development practice, students are expected to participate fully in every class session. Attendance taken each class and evidence of having completed all readings and associated homework before each class will determine participation grade. There will also be several instances in which students will be required to submit a brief journal entry on the topic discussed in class. These will be due by the end of class and are designed to confer techniques for ‘working while at a meeting.’

Attendance: Notify the instructor prior to any absence. For excused absences, material will be accepted up to one week after the class. Unexcused or unannounced absences will be allowed once, after that the student will be lose 10% of the grade. If there are more than two unexcused absences the student will be asked to exit the course.

Wk	Date	Topic	Instructor	Reading (Canvas)	Assignment
1	1/11	Ethics I Introduction H1: Poverty Inc. (1:09) H2: GH EmergencyMed H3: Course Goals	Nelson Becker	Yes. Becker.	Write and submit analysis on the movie due at the end of the class due by midnight 1 page max; Arial 11 single space. Use scientific review format (explained in class).
2	1/25	Ethics II: IRB mechanics H1: myIRB H2: Breakout H3: CITI/ HIPAA	Nelson/ Groups	CITI human subjects training course and certificate	1) CITI Human Subject Basic Course ‘Mandatory Training’ and UF HIPAA PRV801 certificates due on 1/14 before class 2) Individually identify and write down three GH challenges of interest.
3	2/1	Ethics Part III: H1: GH surgery lecture H2: Discussion H3: Pending	Robin Petroze (UF surgery)	Yes. Petroze	1) Read papers prior to class. 2) Make sure myIRB is working on your computer.
4	2/8	Ethics Part IV: H1: case studies in infectious diseases	Rasmussen Nelson/ Groups	Yes. Rasmussen Yes. Nelson DSMB intervention in stool transplant study (primary)	1) Read papers prior to class and upload answers to questions on the canvas site prior to class.

		H2: Exercise in exposing IRB 'pain points' H3: DSMB/IP/COI			
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5	2/15	Ethics Part V: H1: Groups 1 and 2 presentations H2: Groups 3 and 4 presentations H3: myIRB	Nelson/ Groups	Read papers (4) prior to group presentations	1) Individually, identify a topic area of interest, read and draft a one page specific aims and one page literature with a bibliography in endnote of 10 papers on the topic area due at class. 2) Groups (1-4) prepare paper presentation (20 minutes) and send papers to Dr. Nelson prior to class. 3) Submit 2 page compare and contrast paper.
6	2/22	Design Part I: H1: Design thinking H2: Classic models H3: Groups 1-2	Nelson/ Groups	IDEO HCD manual On website	1) Read IDEO manual prior to class 2) Read papers prior to class 3) Prepare group presentations (all groups) 4) Work on specific aims and protocol
7	3/1	Design Part II: H1: Pending H2: Pending H3: P value hacking CLINICAL SERVICE	Pending Pending Lee	Pilot studies (2) P-hacking (2)	1) Read Statistical papers prior to class 5) Work on specific aims and protocol
8	3/8	Design Part III: H1: Emerging models H2-3: Groups 3-4	Nelson / Groups	On website	1) Read papers prior to class 2) Prepare group presentations (all groups) 3) Work on specific aims and protocol
9	3/15	Implementation I: H1: Standard Operating Procedures H2-3: Groups 1-4	Nelson	On website	1) Read papers 2) Submit updated specific aims and draft protocol.
10	3/22	Implementation II: Mid-term exam H2-3: Paper Data Collection Instruments	Nelson	On website	1) Prepare for midterm.
11	3/29	Project Feedback: H1-3: Individual feedback and prep time.	Nelson	Pending	1) Review feedback and prep questions for individual meetings.
12	4/5	Implementation III: Electronic Data Collection Instruments. H1: ODK intro H2: RedCap	Klarman	Pending	1) Bring paper data collection instrument to class to ready it for conversion to redcap.

		<u>H3: RedCap practice.</u> We will schedule office hours with Molly Klarman to help you with REDCAP.			
13	4/12	Group presentation H1-3: Students 1-6	Nelson / Students	None	1) Submit IRB PDF, Specific Aims, and Protocol with data collection tool. 2) Students 1-6. Finish presentations (15 min + 5 min questions) with finalized REDcap mockups
14	4/19	Presentations H1-3: Students 7-9	Nelson / Students	None	1) Students 6-9. Finish presentations (15 min + 5 min questions) with finalized REDcap mockups. Done!