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

Syllabus Spring, 2019  

Time: Monday 9:35-12:35 Place: HPNP G-114  

Credits: 3  

Faculty  
Eric Nelson, MD PhD Tel: 352-294-8536  
Department of Pediatrics, College of Medicine  
Department of Environmental and Global Health, PHHP  
Email: eric.nelson@ufl.edu  

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). 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 groups 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 with sampling strategies in difficult research strategies.  
5. Identify optimal research designs that enable controlled studies but address logistical constraints.  
6. Convey, as a team, in a formal grant proposal 6 page grant proposal that covers a novel research topic of interest with 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 tool (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 12/28/2018

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. Do not use electronic devices, including phones, tablets, and laptop computers, for purposes other than those relating to the class.

Evaluation

Overview:

- 5% Completion of ethical certificate (s)
- 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% Group IRB protocol and presentation
  - Specific aims
  - Research protocol
  - IRB PDF
- 20% Group demonstration of a functional mobile survey (REDcap and ODK)
- 10% Discussion leader of a journal article (lead/ co-lead one class session)
- 10% Class attendance.

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).

Group IRB proposal. Each group will collectively develop a 1 page specific aims page, and then distribute writing a 1 page introduction, 2 pages of a specific aims 1 and 2 pages of specific aims 2; bibliography (e.g. EndNote) is required but not part of the 6 page requirement. The appendix will include both a brief screening form and paper survey form. This document will replace the final exam and will be due prior to the group presentation.

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

Discussion leader. Each week a team of students will lead a class discussion on the empirical readings. Students should NOT develop a presentation, but should synthesize readings sufficient to highlight key
take-away messages and raise critical questions the empirical readings through discussion with classmates. Approximately 30 minutes of each class will be allocated for such discussion.

**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 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.

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<th>Instructor</th>
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| 1  | 1/7  | Ethics I: Introduction  
H1: Goals  
H2: Poverty Inc.  
H3: Write and submit pro/con analysis | Nelson | None | Write and submit analysis on the movie due at the end of the class (1/7). Use scientific review format (explained in class). |
| 2  | 1/14 | 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  | 1/28 | Ethics Part III:  
H1-3: Case studies in global surgery | Robin Petroze (UF surgery) | Pending (per Dr. Petrozse) | 1) Read papers prior to class.  
2) Make sure myIRB is working on your computer. |
| 4  | 2/4  | Ethics Part IV:  
H1: case studies in infectious diseases  
H2: Exercise in exposing IRB ‘pain points’  
Topic Ebola  
2. Haddad et al.  
Ebola  
3. Welch et al.  
Vulnerable populations  
4. 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. |
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<th>Week</th>
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| 5    | 2/11 | Ethics Part V:  
H1: Groups 1 and 2 presentations  
H2: Groups 3 and 4 presentations  
H3: my IRB | 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    | 2/18 | Design Part I:  
Design thinking | Nelson | IDEO HCD manual | 1) Read IDEO manual prior to class  
2) Work on specific aims and protocol |
| 7    | 2/25 | Design Part II:  
H1: Classic models  
H2-3: Groups 1-4 | Nelson/Groups | Pending | 1) Read papers prior to class  
2) Prepare group presentations (all groups)  
3) Work on specific aims and protocol |
| 8    | 3/11 | Design Part III:  
H1: Emerging models  
H2-3: Groups 1-4 | Nelson / Groups | Pending | 1) Read papers prior to class  
2) Prepare group presentations (all groups)  
3) Work on specific aims and protocol |
| 9    | 3/18 | Design Part IV:  
H1: Implementation  
H2-3: Groups 1-4 | Nelson | Pending | 1) Read papers  
2) Submit final specific aims  
3) Prepare group presentations (all groups)  
4) Work on protocol |
| 10   | 3/25 | Data Part I:  
H1: Mid-term exam  
H2: Paper instruments  
H3: Build paper tools | Nelson | Pending | 1) Prepare for midterm. |
| 11   | 4/1  | Data Part II:  
H1: ODK intro  
H2-3: Breakout | Klarman | Pending | 1) Submit PDF of IRB application that includes a paper screening form and case report form.  
2) Bring a smartphone with connectivity to class. |
| 12   | 4/8  | Data Part III:  
H1: RedCap  
H2-3: Breakout | Klarman | Pending | Finish ODK mockup by the beginning of class* |
| 13   | 4/15 | Group presentation  
H1: Group 1  
H2: Group 2 | Nelson / Groups | None | Finish REDcap mockup by the beginning of class* |
| 14   | 4/22 | Group presentation  
H1: Group 3  
H2: Group 4 | Nelson / Groups | None | Done! |