NUTR 803
Advanced Nutrition Intervention and
Policy Research Methods
Spring 2015

Instructors: Kyle Burger (ksburger@unc.edu) Myles Faith (mfaith@email.unc.edu)
Course Meetings: Wednesday, 2:30 to 4:25 PM
Office Hours: By appointment
Course website: https://sakai.unc.edu/portal/site/802-803

Course description
This course will continue to cover the selected topics in nutrition intervention and policy research design and evaluation covered in the fall session of NUTR 801. Additional topics focused on in this course include implementing intervention research and policy studies. Students will gain familiarity with historical and innovative nutrition trials’ design and implementation.

Course Objectives
1. Describe different randomization techniques and justification for use, including basic randomization and blinding implementation strategies.
2. Describe the difference between bias and random error and strategies for minimization.
3. Explain factors that are used to select intervention control/comparison groups and how selection of these groups affects the interpretation of a clinical trial.
4. Describe how to determine sample sizes for clinical trials.
5. Describe effective approaches for recruitment and retention of study participants.
6. Describe the data collection requirements of a trial.
   a. Recommend different questionnaire types and data collection form techniques to ensure quality data.
   b. Explain how to develop new measures or questionnaires, including assessment of their psychometric properties.
7. List the advantages of intent-to-treat analysis and differentiate its interpretation from that of other analyses, such as a “completers” analysis.
8. Describe quality assurance procedures for clinical trials.
9. Describe how policy interventions are designed to address nutrition issues.
10. Explain the process of policy evaluation, as well as alternative policy and environment strategies that impact public health outcomes.
11. Explain how to support policy recommendations with qualitative and quantitative analyses.
12. Describe dissemination and implementation (D&I) research and understand how D&I studies can be used to promote use of evidence-based programs in real-world settings.

Prerequisites: Advanced Nutrition Intervention and Research Methods I and II.

Assignments
1. Mid-term exam (10%)
2. Final exam (10%)
3. Lecture (30%)
4. Manuscript Assignment (40%)
5. General class & journal club participation (10%)
**Lecture**

Students will be assigned to perform with two lecture sessions during the semester. For each of these lectures, students will be responsible for developing/updating lecture slides and materials for use during class, deliver the lecture, answer questions as they arise, and lead discussion as they arise. Students are encouraged to design interactive activities related as they see fit. Students are allowed to organize one outside speaker (3rd year PhD +) with the instructor’s approval. Students should pull from their experiences with last year’s course to improve these lectures and help the presenter modify their presentations.

**Journal club**

Also, students expected to actively participate in all journal clubs. Students are encouraged to seek out other relevant papers, to add to the scholarship of the discussion. Students are expected to bring at least one discussion question to each journal club.

**Manuscript Assignment**

The objective of this project is to draft and submit a journal article based on the previous semester’s ‘impact’ project. Aspects of this assignment will include but are not limited to: determination of authorship, identifying a peer-reviewed outlet, identify and summarize previous literature to insure a novel and compelling contribution, drafting the manuscript body, formatting to meet journal requirements, response to instructor feedback, identifying suitable reviewer’s, and submission to journal. The end product, to be completed in the spring of 2015, will be a submitted manuscript.

**Grading**

Students will be evaluated on their ability to:

- Evaluate research papers based on the components of excellence in nutrition intervention and policy research (journal club discussions)
- Facilitate development of a lecture session
- Lead journal article discussion (ratings by course instructors)
- Develop an introduction to public health nutrition research mini-course
- Participate in class discussions, by asking questions, providing comments, and/or answering questions

Grading for the class will be determined as follows:

**H** Student reads and critically engages with all of the assigned material. Participation in discussion and written assignments exhibit the ability not only to apply the material, but also to extrapolate ideas, expand into new areas, and contribute to the body of scholarship in the area. Reserved for truly extraordinary work (i.e., ≥90%).

**P** Student usually reads and engages critically with the assigned material. Able to apply material and extrapolate ideas. Consistently good work done on time (i.e., 76%-89%).

**L** Student reads and engages critically with only some of the assigned material. Able to apply the material and extrapolate ideas in only some instances (i.e., 65%-75%).

**F** Student occasionally misses class, does not always read the material, fails to critically engage with it, and is unable or unwilling to apply the material (i.e., below <65).

**Honor Code**

Students must observe the Honor Code in all course assignments. You are expected to produce your own work, except where group work is specifically allowed. In all written assignments, you must not plagiarize the work of others. The instrument defining the Honor Code defines plagiarism as "deliberate or reckless representation of another’s words, thoughts, or ideas as one’s own without attribution in connection with submission of academic work, whether graded or otherwise." If you have questions about your responsibility under the honor code, please bring them to one of the instructors or consult with the office of the Dean of
Students or the Instrument of Student Judicial Governance. This document, adopted by the Chancellor, the Faculty Council, and the Student Congress, contains all policies and procedures pertaining to the student honor system.

Please include the following pledge on all written assignments: “On my honor, I have neither given nor received unauthorized aid on this assignment.”

Course Readings

Required Text:

Suggested Text:

Other readings are available electronically on the Sakai website.
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<th>Topic</th>
<th>Leader (navigator)</th>
<th>Readings</th>
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<tr>
<td>14-Jan</td>
<td>Choosing control or comparison groups</td>
<td>Myles</td>
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| 21-Jan| Intro to measurement                                   |                    | Designing clinical research: Chapter 4  
DeVellis’ Scale Development: Theory and Applications: Ch. 1; Ch. 2 pg 14-16  
DeVellis’ Scale Development: Theory and Applications: Ch. 3 pgs. 27-29 (through “Coefficient Alpha”), pgs. 38-39 (“Reliability and Statistical Power” section); Ch. 4 |
| 4-Feb | Sample size & power                                     |                    | Designing Clinical Research Chapter 6  
Required:  
Recommended:  
<p>| 11-Feb| Analyzing data from a randomized trial, including intent-to-treat and missing data |                    |                                                                                                                                  |</p>
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<td>MIDTERM</td>
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<td>11-Mar</td>
<td>SPRING BREAK</td>
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| 1-Apr | Intro to policy research     |                    | **Required:**  

**Recommended:**  
| 22-Apr| Course wrap up: Extended class time with special events | Myles/Kyle         |                                                                                                                                                                                                      |
| 29-Apr| NO CLASS                     |                    |                                                                                                                                                                                                      |
|       | FINAL EXAM                   |                    |                                                                                                                                                                                                      |