Research Methods in Public Health – SPRING 2017
GPH-GU 2361-001

Class Schedule: Tuesdays 4:55 – 6:35
Class Location: Bobst LL151

Professor: Virginia Chang, MD, PhD
Phone: (212) 992-7696
Email: vc43@nyu.edu

Office: 411 Lafayette, 5th Floor
Office Hours: by appt.

COURSE DESCRIPTION:

This course is a review of research and original writings related to public health. Students will learn to apply research methodology to problems in public health. This course provides an introduction to the fundamentals of research study design and methods. It serves as an introduction to quantitative, qualitative, mixed method and participatory approaches to research, as well as ethical issues in conducting research. Through the mix of texts, articles from the public health literature and course work, students will build skills for conducting research and evaluation.

COURSE OBJECTIVES:

1. Identify the types of research questions and designs appropriate for studies in public health.
2. Describe the various types of qualitative and quantitative methods used in social research.
3. Describe the design of standard tools for applying qualitative and quantitative research methods, such as structured questionnaires, unstructured interviews, focus groups, and open-ended interviews.
4. Identify alternative methods of analysis for various types of data.
5. Evaluate the strengths and limitations of methods used in specific research projects.
6. Describe methods for designing research projects related to specific public health problems.
COMPETENCIES COVERED IN THE COURSE:

<table>
<thead>
<tr>
<th>Objective #</th>
<th>Competency</th>
<th>Week Number</th>
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<tbody>
<tr>
<td>1, 2, 5, 6</td>
<td>Demonstrate the ability to plan for the design, development, implementation, and evaluation of strategies to improve individual and community health.</td>
<td>1, 2, 3, 4, 5, 6, 11, 12, 13, 14, 15</td>
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<tr>
<td>3, 4</td>
<td>Develop and apply statistical reasoning and methods in addressing, analyzing and solving problems in public health; health care; and biomedical, clinical and population-based research.</td>
<td>3, 4, 5, 6, 9, 11, 12, 13, 14</td>
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PRE/CO-REQUISITES:
Epidemiology (GPH-GU 2106/5106): pre-requisite

COURSE REQUIREMENTS AND EXPECTATIONS:

Course Format and Materials:
This course draws on two types of reading material: texts that focus on the conduct of research and scientific articles that are examples of different kinds of research. For each of the aspects of research methodology presented during lectures, students will be assigned reading materials that make use of those methods. It is essential that you come to class having completed the readings, ready to discuss them.

Expectations and Classroom Etiquette
- It is expected that everyone will attend class and show up on time. There will be a sign in sheet to keep a record of class attendance, and it is your responsibility to ensure that you have signed in. Attendance is part of your grade.
- Absences will be excused for religious obligations with advanced notification of the instructor. You are still, however, responsible for the materials covered in class.
- Readings should be completed prior to class, it is assumed that you will be able to discuss and answer questions pertaining to the readings during class. Please come to each class with at least 1 question pertaining to the readings. You may be called on during class to share your question for discussion.
- You are strongly encouraged ask questions and express your views in class. Indeed, class participation and in-class dialogue and exchange are essential components of the learning process for this course. It will also help me to understand where you are and help us all better understand the materials. You are required to respect other points of view treat your fellow classmates with respect. Class participation is part of your grade.

Required Readings
- *Articles from Peer Reviewed Journals.* Unless noted, all the articles cited in the syllabus as required readings will be posted on NYU Classes. **NOTE: The reading assignments may be modified as the course proceeds.** You will be notified via email of any such changes and the new, updated syllabus will be posted on NYU Classes.

**Group Assignments:**
1. **Survey Instrument First Draft and Pre-Test:** Each team will draft a survey instrument on a public health topic. Each student will then be responsible for administering the survey to 8 people and compile results from the pre-test. Each group will present their results and reflections to the class. The team will use feedback from their pretest to revise the instrument and for description in the final project.

2. **Focus Group Moderator’s Guide:** Each team will develop a moderators’ guide for a 45 minute focus group investigating your group’s topic. The issues explored in the focus group may flow from the survey results, but can go further, as the group determines.

3. **Final Project:** Each team will prepare a 10-14 page paper, outlining a research design using a survey and focus groups. The paper should identify a target population, the research question the study will investigate, the basic design it will employ, the sampling frame, the sampling plan and a brief discussion of the analytic plan for the data collected. The paper will include an appendix comprised of the moderator’s guide, survey instrument, and tables describing the pre-test of the survey. Format for the final paper will be discussed in class. You will be asked, confidentially, to rate the participation of your group members.

**GRADING:**

<table>
<thead>
<tr>
<th>Item</th>
<th>Percentage or Points:</th>
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<tbody>
<tr>
<td>Midterm</td>
<td>35%</td>
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<tr>
<td>Survey Instrument First Draft</td>
<td>5%</td>
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<tr>
<td>In-Class Presentation</td>
<td>5%</td>
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<tr>
<td>Focus Group Moderator Guide</td>
<td>5%</td>
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<tr>
<td>Final Group Project</td>
<td>30%</td>
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<tr>
<td>Class Participation</td>
<td>10%</td>
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<tr>
<td>Attendance</td>
<td>10%</td>
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**GRADING SCALE:**

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>A</td>
<td>93-100</td>
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<tr>
<td>A-</td>
<td>90-92</td>
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<tr>
<td>A+</td>
<td>87-89</td>
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<tr>
<td>B</td>
<td>83-86</td>
</tr>
<tr>
<td>B-</td>
<td>80-82</td>
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<tr>
<td>C+</td>
<td>77-79</td>
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<tr>
<td>C</td>
<td>73-76</td>
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<tr>
<td>C-</td>
<td>70-72</td>
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<td>D+</td>
<td>67-69</td>
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<tr>
<td>D</td>
<td>60-66</td>
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<tr>
<td>F</td>
<td>&lt;60</td>
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NYU CLASSES:
NYU Classes will be used extensively throughout the semester for assignments, announcements, and communication. NYU Classes is accessible through at https://home.nyu.edu/academics

TECHNOLOGY POLICY:
- **Laptops** are permitted solely for the purpose of note-taking. Please do not use laptops to check email, Facebook, surf the Web, work on assignments, etc. This is disrespectful to the instructor and distracting to other students near you.
- **Cellphones** should be silenced and put away. Please do not send text or check text, voicemail, etc. during class.
- It is expected that everyone will check their NYU email accounts and NYU Classes regularly for course updates, new materials and announcements.

COURSE OUTLINE:

<table>
<thead>
<tr>
<th>Week No. Date</th>
<th>Topics</th>
<th>Readings/Materials Due</th>
<th>Assignments Due</th>
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<tbody>
<tr>
<td>1. January 24</td>
<td>Course assignments, introduction to research</td>
<td>a) Salazar CH 1,2</td>
<td></td>
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<tr>
<td>2. January 31</td>
<td>Introduction to research design, approaches to research and research paradigms, and ethics of research</td>
<td>a) Salazar CH 3 In-Class: Fresh Air interview (link in readings section below) For Reference: - Guidelines for the Conduct of Research Involving Human Subjects at the NIH - Belmont Report - NYU Principal Investigator’s Guide</td>
<td>Group requests due Jan 31 @ 5 PM</td>
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<tr>
<td>3. February 7</td>
<td>Observational Research Designs</td>
<td>a) Salazar, CH 4, 9 b) Houston c) Melchior d) Costello</td>
<td>Group Topic Submission due Monday Feb 6 @ 5 PM</td>
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<tr>
<td>4. February 14</td>
<td>Experimental Research Designs</td>
<td>a) Salazar, CH 5, 10 b) Gray c) Patton</td>
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<tr>
<td>Date</td>
<td>Topic</td>
<td>Reading Material</td>
<td>Notes</td>
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<td>5. February 21</td>
<td>Measurement in Research Design</td>
<td>a) Salazar CH 7 b) Li c) Kenney</td>
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<td>6. February 28</td>
<td>Survey Sampling and Survey Design</td>
<td>a) Salazar CH 6, 13</td>
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<td>7. March 7</td>
<td>IN-CLASS MIDTERM</td>
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<td>8. March 14</td>
<td>NO CLASS- Spring Break</td>
<td>Revised group topics due before Monday March 13 @ 5PM</td>
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<td>9. March 21</td>
<td>Analytic Techniques in Health Promotion and Disease Prevention</td>
<td>Salazar CH 14, 15</td>
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<tr>
<td>10. March 28</td>
<td>Group work on survey drafts and presentations</td>
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<td>11. April 4</td>
<td>In Class Presentations</td>
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<td>Survey Draft Due Tues April 4 @ 5PM</td>
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<td>12. April 11</td>
<td>Qualitative Methods of Inquiry</td>
<td>a) Salazar CH 8, 16 b) Mmari c) Wang</td>
<td>Optional/Reference: - Regin (main text only-exclude appendices)</td>
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<tr>
<td>13. April 18</td>
<td>Thinking through Focus Groups and Interviews</td>
<td>FG Moderator Guide Example and Class Exercise Instructions</td>
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<td>14. April 25</td>
<td>Coding Focus Groups</td>
<td>FG Transcripts</td>
<td>Focus Group Moderator Guide due Tues April 25 @ 5PM</td>
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<tr>
<td>15. May 2</td>
<td>Program Evaluation</td>
<td>Salazar CH 12</td>
<td>Final Project due Friday May 12 @ 5PM</td>
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ARTICLES AND ADDITIONAL READINGS

January 31:

Fresh Air Interview

For Reference:
Guidelines for the conduct of Research Involving Human Subjects at the National Institutes of Health
The Belmont Report
http://www.hhs.gov/ohrp/humansubjects/guidance/belmont.html

NYU Principal Investigator’s Guide to Human Subjects

February 7:


February 14:


February 21:


April 11:


Guide for Critiquing a Research Article
1. What is the research question?
2. What is the research design?
3. How are the key variables measured? How did they collect their data?
4. Who is the sample? How was the sample chosen?
5. What are the results?
6. What limitations do the authors identify, if any?
7. What are the key points in the discussion?
8. Given what else you have read regarding this topic, what is interesting about this article for your research project?

STATEMENT OF ACADEMIC INTEGRITY:
The NYU College of Global Public Health values both open inquiry and academic integrity. Students in the program are expected to follow standards of excellence set forth by New York University. Such standards include respect, honesty and responsibility. The CGPH does not tolerate violations to academic integrity including:

- Plagiarism
- Cheating on an exam
- Submitting your own work toward requirements in more than one course without prior approval from the instructor
- Collaborating with other students for work expected to be completed individually
- Giving your work to another student to submit as his/her own
- Purchasing or using papers or work online or from a commercial firm and presenting it as your own work

Students are expected to familiarize themselves with the CGPH and University’s policy on academic integrity as they will be expected to adhere to such policies at all times – as a student and an alumni of New York University.

Plagiarism
Plagiarism, whether intended or not, is not tolerated in the CGPH. Plagiarism involves presenting ideas and/or words without acknowledging the source and includes any of the following acts:
- Using a phrase, sentence, or passage from another writer's work without using quotation marks
- Paraphrasing a passage from another writer's work without attribution
- Presenting facts, ideas, or written text gathered or downloaded from the Internet as your own
- Submitting another student's work with your name on it
- Submitting your own work toward requirements in more than one course without prior approval from the instructor
- Purchasing a paper or "research" from a term paper mill.

Students in the CGPH and CGPH courses are responsible for understanding what constitutes plagiarism. Students are encouraged to discuss specific questions with faculty instructors and to utilize the many resources available at New York University.

Disciplinary Sanctions
When a professor suspects cheating, plagiarism, and/or other forms of academic dishonesty, appropriate disciplinary action is as follows:
- The Professor will meet with the student to discuss, and present evidence for the particular violation, giving the student opportunity to refute or deny the charge(s).
- If the Professor confirms that violation(s), he/she, in consultation with the Program Director may take any of the following actions:
  - Allow the student to redo the assignment
  - Lower the grade for the work in question
  - Assign a grade of F for the work in question
  - Assign a grade of F for the course
  - Recommend dismissal

Once an action(s) is taken, the Professor will inform the Program Director and inform the student in writing, instructing the student to schedule an appointment with the Associate Dean for Academic Affairs, as a final step. The student has the right to appeal the action taken in accordance with the CGPH Student Complaint Procedure.

STUDENTS WITH DISABILITIES:
Students with disabilities should contact the Moses Center for Students with Disabilities regarding the resources available to them, and to determine what classroom accommodations should be made available. More information about the Moses Center can be found here: [https://www.nyu.edu/life/safety-health-wellness/students-with-disabilities.html](https://www.nyu.edu/life/safety-health-wellness/students-with-disabilities.html). Students requesting accommodation must obtain a letter from the Moses Center to provide to me as early in the semester as possible.