

University of Florida
College of Public Health & Health Professions
Department of Behavioral Science and Community Health

Course Syllabus

PHC6700: Social & Behavioral Research methods
Fall 2010

Meeting Days	Times	Location
Tuesday	4 th -6 th period (10:40-1:40)	HPNP G316

Instructor Information

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TA Information

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Course Overview

The purpose of this course is to introduce students to social and behavioral research methods used in the field of public health. Students will gain expertise in reading, evaluating and testing data from various forms of research. The focus will be on the practical application of health and behavioral data. The content focuses on the theoretical foundations of measurement, types of research design (qualitative / quantitative), study construction for large and small scale projects, analysis, validity and reliability assessment, survey /questionnaire design, and content analysis. The classes will incorporate readings, lectures, in-class discussion, practical labs and student presentations.

Course Timetable: 3hrs per week (2 hrs in person lecture format, 1 hr tutorial)

Course Objectives





1. To increase exposure to and knowledge of research methodology in public health with emphasis on social behavioral applications.
2. To identify and understand the role of research and measurement in social outcomes research.
3. To develop skills in hypothesis development , sampling, and application of the concepts of validity and reliability
4. To broaden knowledge of qualitative and quantitative designs and their application and interpretation in community and health environments.

5. To apply basic concepts of data gathering, management, accuracy, precision, and testing and reproducibility to measured health data.
6. To critically assess research concepts in published research papers from a variety of social and behavioral areas.

Recommended Texts:

1. Babbie, E. (2008). The Basics of Social Research. 4th Edition.
2. Leedy P.D, Ormrod JE (2005). Practical Research: Planning and Design. 8th Eds.
3. Creswell JW (2003) Research Design: Qualitative, Quantitative, and Mixed Methods Approaches (2nd Edition).California. Sage Publications.
4. Cosby PC. (2006). Methods in Behavioral Research. 9th Eds. Boston. McGraw Hill International.
5. Burg BL. Qualitative Research Methods for the Social Sciences (6th Edition)
6. Newman WL. (2002) Social Research Methods: Qualitative and quantitative approaches.6th Eds. Boston: Allyn & Bacon.
7. Hully SB, Cummings SR. (2006). Designing Clinical Research- an epidemiologic approach. Baltimore: Williams & Wilkins.

Suggested reading:

-  Fletcher RH, Fletcher SW, Wagner EH. Diagnosis in Clinical Epidemiology: the essentials (3d print). Baltimore, Media: Williams & Wilkins 1996. Chapter 3: 43-74
-  Fowler FJ. Survey Research methods. Newbury Park, CA: Sage Publications, 2001
-  Maxim PS. Quantitative research methods in the social sciences. New York. Oxford University Press
-  Wooden KE, Schneider JC. The CRAIS Guide to monitoring clinical research. 2003

Note: Additional readings will be provided with class notes.

Computer requirements:

The interactive and applied nature of this course requires that you bring a laptop to class most sessions. You will need access to Microsoft Word, Excel, and Powerpoint as well as SPSS to be successful in this course. The UF Bookstore offers these programs at reduced costs for students: <http://www.bsd.ufl.edu/g1c/bookstore/bookstore.asp>. All relevant course material will be available on e-Learning in Sakai.

Course requirement/ evaluation/ grading

Tutorials /Computer Labs and homework exercises (40%)

Each student is required to attend and complete all work activities assigned for tutorial sessions. These sessions will be practical applications of material covered in lectures. There will be a combination of research exemplars, computer data, and videotaped subject interviews for analysis (with some classes you will be provided with datasets for you to use for the computer

data analysis). In the case of assignments for these applied sessions, all work must be clearly written /printed and provided to the tutorial instructor at the start of each following class.

Research project (40%)

The student (or small group) will be asked to develop a research project on a health topic. Students will present an overview of their project to the class using MS power point prior to completion. A written presentation of this project will be required one week following the student's presentation

All reports should contain the following:

- A. A hypothesis statement
- B. A rationale- including the background (literature review) & theoretical framework that forms a basis for the question
- C. Sampling frame
- D. Participants
- E. Measurement techniques (validity/ reliability)
- F. Methods for administration of the study
- G. Control for bias
- H. Control for confounding
- I. Plans for analysis
- J. Expected outcomes
- K. Statement/ evaluation of impact

The final manuscript report (completed individually) must include a researched introduction to the health topic chosen and may be no less than 5 pages and no greater than 10 typed pages in length, 12 font, 1.5-2 point spacing, and 1 inch margins all around.

Class participation (20%)

Students are expected to attend every class meeting. Students must notify the course instructor in writing (email), if they are unable to attend a class session for any reason. Students are expected to have read all assigned readings prior to class and be prepared to participate in discussions. Students will be evaluated on the quality and quantity of their participation.

Final Grade Breakdown:

A	93-100%	C	73-77%
A-	90-92%	C-	70-72%
B+	88-89%	D+	68-69%
B	83-87%	D	63-67%
B-	80-82%	D-	60-62%
C+	78-79%	E	<60%

Statement of University's Honesty Policy

Academic Integrity – Students are expected to act in accordance with the University of Florida policy on academic integrity (see Graduate Student Handbook for details). As a member of the University of Florida community, each of us is bound by the academic honesty guidelines of the University and the Code of Student Conduct, printed in the Student Guide and published on the University website. The Honor Code states: “We, the members of the University of Florida community, pledge to uphold ourselves and our peers to the highest standards of honesty and integrity.” Cheating, plagiarism, other academic dishonesty or conduct violations in any form is unacceptable and inexcusable behavior that can result in dismissal from the College and/or University. If you have any questions or need any clarifications whatsoever, please ask your instructor.

Policy related to class attendance or other work

You will be expected to attend and be prepared to participate in all class sessions and participate in discussions and activities. At a bare minimum, you are responsible for coming to all class sessions. Of course, unanticipated circumstances may arise (illnesses, emergencies, even deaths in our lives and communities). Please notify your instructor immediately (preferably in person or via telephone and not via email) if such events occur. Personal issues with respect to class attendance or fulfillment of course requirements will be handled on an individual basis. You will only be allowed to make up points from class sessions individually if your absence warrants a medical excuse or similar documentation (consistent with the College policy). **There will be no “make-up exams” without an official medical or similar emergency.** Examinations missed or turned in late for any other reasons will receive a grade of “zero.”

Statement related to accommodations for students with disabilities

If you require academic accommodations, you must first register with the Dean of Students' Office. The Dean of Students' Office will provide you with documentation that you must provide to me as the faculty member for this course at the time you request the accommodation. The College and the instructor are committed to providing reasonable accommodations to students with special needs in order to assist students in their coursework.

Counseling and mental health services: Students in need of counseling and mental health services are encouraged to explore the Student Health Care Center, <http://www.shcc.ufl.edu> , (352)-392-1161, or the University of Florida Counseling and Wellness Center, <https://www.counseling.ufl.edu/cwc/>, (352)-392-1575

Week	Dates	Topics & Tutorials	Readings
1	Aug. 24 th	Course overview and introduction to research Tutorial: <i>Review the basics of measurement</i>	Babbie: Ch. 1-2 Oxman et al. ¹ Greenhalgh ² Ziebergold ³
2	Aug. 31 st	Purpose statements; Causal relationships; Bias; Confounding Tutorial: <i>Identifying threats to validity</i>	Babbie: Ch. 4 Babbie: Pg. 208-209 Warren ⁴ Grimes ⁵ Priester ⁶ Ottenbacher ⁷
3	Sept. 7 th	Sampling; Randomization; Reliability of measurement: procedures for estimating reliability & Reliability coefficients Tutorial: <i>Analyzing the validity of published studies</i>	Babbie: Ch. 7 Cosby: Ch. 5 Neuman: Ch.8 Haas ⁸ Levin ⁹ Jaeschke ¹⁰ Fulkerson ¹¹
4	Sept. 14 th	Quantitative vs. Qualitative designs Differentiation and design overview Tutorial: <i>Exploring research design</i>	Babbie: Pg. 25-27
5	Sept. 21 st	Introduction to Validity: Criterion related / Concurrent validity; Accuracy, precision & bias; Construct & predictive validity Confounding (AGAIN!!) Tutorial: <i>Introduction to a research database</i>	Babbie: Pg. 156-164 Cosby: Ch. 5 Cockburn ¹² Choi ¹³
6	Sept. 28 th	Quantitative Designs in Depth: Quasi experimental designs: pre-post; cross sectional; cohort study Tutorial: <i>Student survey datasets</i>	Babbie: Pg. 383-387 Cosby: Ch. 11 Sackett et al. ¹⁴
7	Oct. 5 th	Quantitative Designs in Depth: Experimental; Group designs; RCT, N of 1 Tutorial: <i>Reliability on Student Surveys</i>	Babbie: Ch. 8 Miettinen ¹⁵ Schlesselman ¹⁶ Stephenson ¹⁷ Yusuf ¹⁸
8	Oct. 12 th	Descriptive, Single Case Design, Non-experimental Tutorial: <i>ROC Curves</i>	Cosby: Ch. 11 Robey ¹⁹
9	Oct. 19 th	Introduction to Qualitative Design	Guest Lecture

		Tutorial: RCT	Subak ²⁰
10	Oct. 26 th	Qualitative Designs; Field, Content Analysis Tutorial: Transcribe, code & theme	Babbie: Ch. 10 Babbie: Pg. 349-362
11	Nov. 2 nd	Ecological Survey Research Tutorial: Evaluating survey questions	Babbie: Ch. 9
12	Nov. 9 th	Making statistics work for you Effect size Error, Power Analyzing Results Tutorial: Effect sizes	Babbie: Ch. 14 Cosby: Ch. 12
13	Nov. 16 th	Research ethics Writing research Tutorial: Ethical decision making in research	Babbie: Ch. 3 Babbie: Pg. 486-492 Cosby: Ch. 3
14	Nov. 23 rd	Thanksgiving – NO CLASS Work on student presentations	
15	Nov. 30 th	Student Presentations	
16	Dec. 7 th	Last Day of Classes! Student Presentations	
		Course Project due by 5:00pm December 14th!	

Required Readings:

1. Oxman A, Sackett D, Guyatt G. (1993) Users guide to the medical literature. I. How to get started. *JAMA*; 270 (17): 2093 – 5.
2. Greenhalgh T (1997) How to read a paper: getting your bearings (deciding what the paper is about). *BMJ*; 315: 243-246
3. Zybergold, R.S & Piper, M.C. (1981). Lumbar disc disease: Comparative analysis of physical therapy treatments, *Archives of Physiology and Medical Rehabilitation*, 62.
4. Warren, J.M., Henry, C.J., Lightowler, H.J., Bradshaw, S.M., Perwaiz, S. (2003). Evaluation of a pilot school programme aimed at the prevention of obesity in children, *Health Promotion International*, 18 (4): 28796.
5. Grimes, D.A & Schulz, K. (2002). Bias and causal associations in observational research, *Lancet*, 359: 248-52
6. Priester, P.E., Azen, R., Speight, S., Vera, E.M. (2007). The impact of counselor recovery status similarity on perception of attractiveness with members of alcoholics anonymous: An exception to the repulsion hypothesis, *RCB*, 51:1, 14-20
7. Ottenbacher K (1995) Why rehabilitation research does not work as well as we think it should. *Arch Phys Med Rehabil*; 76: 123- 129.
8. Haas M (1991) Statistical methodology for reliability studies. *J Manip & Phys Ther*, 14 (2): 119 – 132.
9. Levin, K.A. (2005). Study design II. Issues of chance, bias, confounding and contamination, *Evidence Based Dentistry*, 6: 102-103.
10. Jaeschke R, Guyatt G, Sackett DL. (1994) Users guide to the medical literature. III. How to use an article about a diagnostic test. A. Are the results of the study valid? *JAMA*; 271: 389-91.
11. Fulkerson, J.A. & French, S.A. (2003). Cigarette smoking for weight loss or control among adolescents: Gender and racial/ethnic differences, *Journal of Adolescent Health*, 32:4, 306-313.
12. Cockburn J & DeLuise T (1992) Some issues regarding reliability and validity. *Health Promotion Journal of Aust*; 2 (2): 49-54
13. Choi C, Noseworthy L (1992) Classification, direction, and prevention of bias in epidemiologic research. *JOM*; 34(3) :265 – 271.
14. Sackett DL, Rosenberg W, Gray M, Haynes B, Richardson S (1996) Evidenced based medicine: What it is and what it isn't. *BMJ*; 312: 71-72.
15. Miettinen O (1985) The case control study valid selection of subjects. *J Chron Dis*; 38 (7) : 543-548.
16. Schlesselman J (1985) Valid selection of subjects in case-control studies. *J Chron Dis* ; 38(7): 549 – 550.
17. Stephenson J, Imrie J (1998) Why do we need randomised controlled trials to assess behavioural interventions? *BMJ*; 316: 611-613
18. Yusuf S, Collins R, Peto R. (1984) Why do we need some large, simple randomized trials? *Stat in Med*; 3: 409-420.
19. Robey, R. R., Schultz, M. C., Crawford, A. B., & Sinner, C. A. (1999). Single-subject Clinical -outcome research: Designs, data, effect sizes, and analyses. *Aphasiology*, 13, 445–473.

20. Subak, L.L., Quesenberry, C.P., Posner, S.F., Cattolica, E., Soghikian, K. (2002). The effect of behavioral therapy on urinary incontinence: A randomized controlled trial, *American College of Obstetricians and Gynecologists*, 100:1..

Additional Reading list

1. Cockburn J & DeLuise T (1992) Some issues regarding reliability and validity. *Health Promotion Journal of Australia*; 2 (2): 49-54
2. Kelsey JL, Thompson WD & Evans AS (1986) *Methods in observational epidemiology* Oxford University press, New York. Chaps 1
3. Choi C, Noseworthy L (1992) Classification, direction, and prevention of bias in epidemiologic research. *JOM*; 34(3):265 – 271.
4. Fletcher RH, Fletcher SW & Wagner EH. (1988) *Clinical epidemiology: the essentials* Baltimore, Williams & Wilkins. Chpt 3
5. Fletcher RH, Fletcher SW & Wagner EH. (1988) *Clinical epidemiology: the essentials* Baltimore, Williams & Wilkins. Chapter 3
6. Abramson JH (1979) *Survey methods in community medicine* Churchill Livingstone
7. Cronbach, L.J. and Meehl, P.E. (1955) Construct validity in psychological tests. *Psychological Bulletin*, 52, 281-302
8. Messick, S. (1989). Validity. In R. L. Linn, (ed.), *Educational Measurement*. New York: Macmillan Publishing Company, pp. 13-103.
9. Armitage P (1971) *Statistical methods in medical research* Oxford, Blackwell
10. Fleiss JL (1981) *Statistical methods for rates and proportions* New York, John Wiley & Sons.
11. Kelsey JL, Thompson WD & Evans AS (1986) *Methods in observational epidemiology* Oxford University press, New York. Chaps 4. Prospective Cohort Studies 1: Planning and execution.
12. Gardner MJ, Altman DG (1989) *Statistics with confidence*. Belfast, Universities Press
13. Sackett DL, Haynes RB, Guyatt GH, Tugwell P (1991) *Clinical Epidemiology: a basic science for clinical medicine*. Boston, Little, Brown and Company.
14. Campbell DT & Stanley JC. (1966) *Experimental and quasi experimental designs for research*. Chicago, Rand McNally
15. Cohen J (1988) *Statistical power analysis for the behavioural sciences* 2nd Rev Ed. Hillsdale NJ, Lawrence Erlbaum.
16. Lipsey MW (1990) *Design sensitivity: Statistical power for experimental research* Newbury Park CA, Sage.
17. Friedman LM, Furburg CD, DeMets DL. (1985) *Fundermentals of clinical trials* (2nd Ed) Littleton MA, PSG
18. Kraemer HC, Thiemann S (1987) *How many subjects? Statistical power analysis in research*. Newbury Park, Sage
19. Abramson JH (1979) *Survey methods in community medicine* Churchill Livingstone.

20. Arnold, B. L. (1997). Single-subject research as an alternative to group research. *Athletic Therapy Today*, 2(3), 19-20.
21. Barlow, D. H., & Hersen, M. (1985). *Single case experimental design: Strategies for studying behavior change* (2nd ed.) New York: Pergamon.
22. Abramson JH (1979) *Survey methods in community medicine* Churchill Livingstone
Moser CA, Kalton G (1971).
23. Katz R, Campagnolo D, Golberg G, Parker J, Pine Z, Whyte J. (1995) Critical evaluation of clinical research. *Arch Phys Med Rehabil*; 76: 82 – 93