

INSTRUCTOR: Patricia A. Cavazos-Rehg, Ph.D.
Office Hours: By appointment

OVERVIEW:

1. BROAD PURPOSE OF COURSE

This course is designed to introduce students to basic research methods used in health care research. The course will provide an overview of basic methodological concepts used in health care, social science, and behavioral science research. After completing this course you should be able to demonstrate an advanced understanding of all phases and components of the research process including: generating research questions and hypotheses, designing a study, selecting a study sample, measuring variables and constructs, collecting data and planning data analysis.

OBJECTIVES:

2. COURSE OBJECTIVES

Upon completion of this course, students should be able to:

1. Accurately critique different kinds of practice-related research reports.
2. Enhance skills in accessing and critically reviewing practice-related research.
3. Demonstrate understanding of various approaches to data collection and analysis
4. Select appropriate statistical procedures to analyze and correctly interpret different kinds of data.
5. Identify and follow appropriate procedures and rules for obtaining informed consent, preserving confidentiality, and notifying participants of benefits and risks related to research.

3. GRADING POLICY

Homework Assignments: 100 points (10 points each)

You will be required to complete class assignments throughout the semester. Assignments will often consist of two parts that are intended to assess your understanding of the course readings and to help you critically think about and make progress on your final research project. The homework assignments should be submitted on the due date to receive credit. No late assignments will be accepted unless approved by the instructor. The Instructor will provide handouts in class with instructions for each homework assignment.

Article Critiques: 100 points (10 points each)

You will to complete 10 article critiques throughout the semester. You should be asked to identify, bring in a copy of, and critique an empirical article related to your own area of interest – and also related to the topic area (and readings) being discussed during class. The objective of this assignment is to give you an opportunity to think critically about and differentiate between various research designs. Additionally, this task will help you to create a database of articles related to your area of research interest. A template for completing this assignment will be provided to you. You are expected to discuss the article that you selected and your critique during class.

Research Proposal: 100 points

You will be required to write a research proposal to conduct a study in your area of interest. Proposal should be about 10 to 15 pages long with 1” margins (font should be 12 Times New Roman). Please do not include more than 1 direct quote from the literature.

The content of the proposal should include the following:

1. Title page
2. Introduction (1-2 pages)
 - a. Specific aims
 - b. Research questions to be answered
3. Review of the Literature (3 – 5 pages)
4. Significance of the study (1 – 2 pages)
5. Methods/Results section (4 – 6 pages)
 - a. Descriptions of the participants
 - b. Procedures
 - c. Measures
 - d. Data analysis
 - e. Results
6. Discussion/Summary (1-2 pages)
7. References

No late proposals will be accepted unless approved by the instructor.

Presentation: 50 points

You will be required to give a 10-15 minute presentation of your research proposal. You are allowed an additional 5-10 minutes of discussion time. The use of PowerPoint slides is preferred.

Class Participation: 50 points

Active participation in class, peer evaluations, and during group activities is crucial for learning in this course. Class participation also includes playing active roles in creating a supportive atmosphere in which every participant's learning will be fostered. I do expect you to attend every class meeting. Excessive absences will be counted against participation points. Feel free to discuss and share with me whatever problems emerge that can affect your participation in the class.

METHODS OF EVALUATION

Assignments	Points
Homework Assignments	100
Article Critiques	100
Research Proposal	100
Presentation	50
Class Participation	50
<i>Total Points Possible</i>	<i>400</i>
<i>Grade Distribution</i> Grade	Course Total
A	360 – 400
B	320 – 359
C	280 – 319
D	240 – 279
F	0 – 239

4. TEXTS AND READINGS

Required:

William Trochim, *Research Methods: The Concise Knowledge Base*

Recommended:

Publication Manual of the American Psychological Association (5th ed.). (2001). Washington, DC: American Psychological Association.

5. ACADEMIC INTEGRITY

Academic Integrity Policy

Students are expected to abide by and uphold the Academic Integrity Policy for Graduate Students from the Graduate School of Arts & Sciences. All students should have received this policy. Please contact the Office of the Dean of the School of Arts & Sciences to obtain copies of this document.

Students with disabilities

Washington University is committed to providing accommodations and/or services to students with documented disabilities. Students who are seeking support for a disability or a suspected disability should contact the Disability Resource Center (DRC) at 5-4062 on the lower level of the Women's Building (drc@dosa.wustl.edu). The DRC is responsible for approving and arranging all accommodations for University students.

6. CLASS SCHEDULE

Class 1: 1/25

Topic: Introduction & Overview; Designing your research question(s)

1. Text: Research & Medical Literature - Chapter 1: Introduction
-

Class 2: 2/1

Topic: Critical Appraisal of the Research Literature

Reading Assignment:

1. Fineout-Overholt, E., Melnyk, B. M., Stillwell, S. B., & Williamson, K. M. (2010). Evidence-based practice step by step: Critical appraisal of the evidence: Part I. *AJN The American Journal of Nursing*, 110(7), 47-52.
2. Greenhalgh, T. (1997). Assessing the methodological quality of published papers. *BMJ: British Medical Journal*, 315(7103), 305.
3. Miser, W. F. (1999). Critical appraisal of the literature. *JOURNAL-AMERICAN BOARD OF FAMILY PRACTICE*, 12, 315-333.
4. Greenhalgh, T. (1997). How to read a paper. Getting your bearings (deciding what the paper is about). *BMJ: British Medical Journal*, 315(7102), 243.

Class Homework 1:

1. Designing your study

Article critique #1

Class 3: 2/8

Topic 1: Logic of Causation

Topic 2: Literature Review

Reading Assignment:

Logic of Causation

1. William R. Shadish, Cook, T. D., & Campbell, D. T. (2002). *Experimental and quasi-experimental designs for generalized causal inference*. Wadsworth Cengage learning.
2. Harcourt, B. E., & Ludwig, J. (2006). Broken windows: New evidence from New York City and a five-city social experiment. *The University of Chicago Law Review*, 271-320.
3. Postrel, V. (2005, June 16). One possible cure for the common criminal. *New York Times*. <http://vpostrel.com/articles/one-possible-cure-for-the-common-criminal>
4. Rashbaum, W. (2002, May 22). In new focus on quality of life, city goes after petty criminals. *New York Times*. <http://www.nytimes.com/2002/05/22/nyregion/in-new-focus-on-quality-of-life-city-goes-after-petty-criminals.html>
5. Silverman, E.B. and Fagan, J. (2002, May 12). Soapbox: Broken windows or broken promises? *New York Times*. <http://www.nytimes.com/2002/05/12/nyregion/soapbox-pro-broken-windows-or-broken-promises.html>
6. Ramirez, Anthony. (2002, August 25). One more reason you're less likely to be murdered. *New York Times*.

<http://www.nytimes.com/2002/08/25/weekinreview/ideas-trends-one-more-reason-you-re-less-likely-to-be-murdered.html>

7. Harcourt, B.E. (2002). Policing disorder: Can we reduce serious crime by punishing petty offenses? *Boston Review*, Vol 28 (April/May).
[www.bostonreview.net/BR27.2/harcourt.html]

Literature Review readings:

1. Cronin, P., Ryan, F., & Coughlan, M. (2008). Undertaking a literature review: a step-by-step approach. *British journal of nursing (Mark Allen Publishing)*, (17), 38-43.
2. Wakefield, A. (2014). Searching and critiquing the research literature. *Nursing standard (Royal College of Nursing (Great Britain): 1987)*, 28(39), 49-57.

Class Homework 2:

1. Exercise in Causal Thinking

Article critique #2

Class 4: 2/15

Topic: Sampling

Reading Assignment:

Text: Trochim: Chapter 2: Sampling

Class Homework 3:

1. Gaining Practice in Sampling Critique (Exercise 2-2b)
2. Sampling methods for your research

Article critique #3

Class 5: 2/22

Topic: Measurement

Reading Assignment:

Text: Trochim: Chapter 3: The Theory of Measurement

Class Homework 4:

1. Practice in Measurement Critique (Exercise 3-3b)
2. Measurement issues to consider in planning your study

Article critique #4

Class 6: 2/29

Topic: Survey research

Reading Assignment:

1. Text: Trochim: Chapter 4: Survey Research

Class Homework 5:

1. Recognition of Item Formats (Exercise 4-3a)
2. Research design for a quantitative study

Article critique #5

Class 7: 3/7

Topic: Experimental and Quasi-experimental designs

Reading Assignment:

1. Text. Trochim: Chapter 8: Experimental Design
2. Grimshaw, J., Campbell, M., Eccles, M., & Steen, N. (2000). Experimental and quasi-experimental designs for evaluating guideline implementation strategies. *Family practice, 17*(90001), 11-16.
3. Wludyka, P. (2011). Study designs and their outcomes. *Epidemiology for Advanced Nursing Practice. Jones & Bartlett Learning, USA*, 81-115.
4. Ramos-Álvarez, M. M., Valdés-Conroy, B., & Catena Martínez, A. (2006). Criteria of the peer-review process for publication of experimental and quasi-experimental research in Psychology.
5. Cook, T. D., & Campbell, D. T. (1986). The causal assumptions of quasi-experimental practice. *Synthese, 68*(1), 141-180.

Class Homework 6:

1. Identifying and Critiquing Experimental Designs (Exercise 8-3a)
2. Experimental design versus quasi-experimental design

Article critique #6

Spring Break 3/14

Class 8: 3/21

Topic: Qualitative research designs

Reading Assignment:

1. Text: Research & Medical Literature – Chapter 12: Qualitative Research
2. Krefting, L. (1991). Rigor in qualitative research: The assessment of trustworthiness. *American journal of occupational therapy, 45*(3), 214-222.
3. Denzin, N. K., & Lincoln, Y. S. (2005). Qualitative research. *Denzin, NK y Lincoln YS*.
4. Pope, C., Ziebland, S., & Mays, N. (2000). Qualitative research in health care: Analysing qualitative data. *BMJ: British Medical Journal, 320*(7227), 114.
5. Dickson-Swift, V., James, E. L., Kippen, S., & Liamputtong, P. (2007). Doing sensitive research: what challenges do qualitative researchers face? *Qualitative research, 7*(3), 327-353.

Class Homework 7:

1. Critiquing a Qualitative Research Design
2. Considering a qualitative research design for your research

Article critique #7

Class 9: 3/28

Topic: Mixed Methods Research

Reading Assignment:

1. Bryman, A. (2006). Integrating quantitative and qualitative research: how is it done?. *Qualitative research*, 6(1), 97-113.
2. Johnson, R. B., & Onwuegbuzie, A. J. (2004). Mixed methods research: A research paradigm whose time has come. *Educational researcher*, 33(7), 14-26.
3. Johnson, R. B., Onwuegbuzie, A. J., & Turner, L. A. (2007). Toward a definition of mixed methods research. *Journal of mixed methods research*, 1(2), 112-133.
4. Creswell, J. W., Klassen, A. C., Plano Clark, V. L., & Smith, K. C. (2011). Best practices for mixed methods research in the health sciences. *Bethesda (Maryland): National Institutes of Health*, 2094-2103.

Class Homework 8:

1. Advantages and disadvantages of a mixed methods research design
2. Considering a mixed methods research design for your research

Article critique #8

Class 10: 4/4

Topic: Data Analysis

Reading Assignment:

1. Text: Trochim: Chapter 11: Analysis
2. Text: Trochim: Chapter 12: Analysis for Research Design
3. Text: Research & Medical Literature – Chapter 14: Data Analysis
4. A practical guide for health researchers. World Health Organization. Chapter 8. Describing and analysing research results. Chapter 9. Interpreting research results.

Class Homework 9:

1. Understanding Statistical Significance and Power (Exercise 11-2b)
2. Interpreting the Results of an Inferential Statistical Analysis (Exercise 12-3a)

Article critique #9

Class 11: 4/11

Reading Assignment:

1. A practical guide for health researchers World Health Organization. Chapter 2. Ethics in health research.

Class Homework 10:

1. Write an IRB Application. Thinking about your final paper, write an application for IRB review. I will provide you with the forms that you will need to use. Answer each section, but feel free to simply sketch out a brief response.

Article critique #10

Class 12: 4/18

Proposal Peer Reviews

Class 13: 4/25

Class Presentations

Class 14: 5/2

Class Presentations

Research Proposal is due

Students must submit Research Proposal on 5/2 by email no later than 5pm. If other arrangements are necessary then student must discuss this with the Instructor by 3/26.