

COURSE SYLLABUS COVER SHEET
Lewis & Clark College
Graduate School of Education and Counseling
Research Methods & Statistics I
CPSY 530 - Section 1

Fall Semester 2016
Tuesday 9-12:15
York 116
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Advising Hours by appointment
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“If we knew what it was we were doing, it would not be called research, would it?”
Albert Einstein

Required Text:

Mertens (2010). *Research and evaluation in education and psychology. Integrating diversity with quantitative, qualitative and mixed methods.* (3rd or 4th Ed). Thousand Oaks, CA: Sage.

Suggested Text:

American Psychological Association (2015). *Publication manual of the American Psychological Association.* (6th Ed.). Washington, DC: American Psychological Association.

Catalogue Description:

Introduction to research methods with an emphasis on design, sampling, measurement issues, and introductory data analysis. Topics include (1) research design: elements of the research process, types of designs, program evaluation; (2) ethical considerations of research: informed consent, research with diverse and vulnerable populations, research with children, human subjects review; (3) basic measurement concepts: validity, reliability, norms, score interpretation; (4) basic statistical concepts: frequency distributions, central tendency, measures of variability, correlation. Reviews Web-based resources for conducting research. Note: Taught during the fall semester only, as the first course of a two-semester sequence. Students who wish to pursue the thesis-option M.S. program are advised to take this sequence as early as possible in their course of study.

Course Description:

This course covers the essential concepts related to research design and methodology that practitioners need to become critical evaluators of research and prepare for conducting research in their practices. Focus is on understanding each component of the research process, qualitative and quantitative designs, program evaluation, measurement issues, and data analysis.

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Course Goals and Objectives:

The primary goal of this class is to have students gain a more complete understanding of the research process which would allow them to critically analyze published research and/or be able to conduct independent research. It is assumed that this knowledge and skill will in turn allow students to evaluate research in their field(s) of expertise from a critical and informed perspective.

The objectives of this class will be to provide opportunities to learn and apply the skills necessary for critiquing and conducting research. Emphasis will be on the following components of the research process: research questions and hypotheses, research design including qualitative research, action research and program evaluation, definition and operationalization of variables, and measurement issues. The impact of culture on research design and analysis will additionally be addressed.

By the end of the semester students will be able to:

- Identify various paradigms for conducting research (NASP 2.1, CC: 8b)
- Identify each of the steps involved in the development of a research project (NASP 2.9; CC: 8b, 8c, 8d)
- Write research questions and hypotheses (CC: 8b)
- Understand the ethical issues involved in working with human participants (CC: 8f)
- Identify and describe various types of quantitative research designs (CC: 8b)
- Identify and describe various types of qualitative research designs (CC: 8b)
- Identify the components and models of program evaluations, including needs assessments (NASP 2.9; CC: 8d, B3)
- Identify and describe validity issues inherent in different types of designs (CC: 8b, 8c, 8d)
- Discuss the use of research findings for program change (CC: 8d, B3)
- Discuss the issues involved in conducting real world research (CC: 8a, 8e)
- Discuss the impact of culture on various aspects of the research process (CC: 8f, 7f, 2c)
- Critically evaluate published research articles (NASP 2.1; CC: 8a, 8b, 8d, 8e)
- Design a proposal for research project (NASP 2.11; CC: 8a, 8b, 8e)
- Write an Introduction and Literature Review for a research project (thesis students only)

From the Marriage & Family Therapy Core Competencies & MCFT program standards

Students:

- Understand research and program evaluation methodologies, both quantitative and qualitative, relevant to MFT and mental health services.
- Demonstrate an understanding of process and outcome, research design, methodology, basic statistics, with research knowledge in individual and family counseling
- Understand the legal, ethical, and contextual issues involved in the conduct of clinical research and program evaluation.
- Recognize informal research processes involved in therapy, own biases relative to research
- Know the extant MFT literature, research, and evidence-based practice.
- Read current MFT and other professional literature and use the literature to inform clinical practice.
- Critique professional research and assess the quality of research studies and program evaluation in the literature.
- Determine the effectiveness of clinical practice and techniques.
- Utilize research and technology applications in marital, couple, and family counseling

- Recognize opportunities for therapists and clients to participate in clinical research when appropriate

Attendance requirements: Class attendance is expected and required. **Any missed class time will be made up by completing extra assignments designed by the instructor.** If you do not complete the makeup assignment 10% will be deducted from your participation grade. Missing more than ten percent of class time may result in failure to complete the class. This would be 4.5 hours of a 45 hour class (3 credits), 3.0 hours for a 30 hour class (2 credits) or 1.5 hours for a 15 hour class (1 credit.) In case of extreme hardship and also at the discretion of the instructor, a grade of incomplete may be given for an assignment or the entire course. In such cases, the work to be submitted in order to remove the incomplete must be documented appropriately and stated deadlines met. Students are expected to be on time to class and tardiness may be seen as an absence that requires make-up work.

Use of technology in class:

Laptops and cell phones are prohibited during class time. Building an engaged and learning community is an important aspects of this course and these technologies can be distractions to the learning process. If you need a laptop for notetaking purposes please talk with the professor. There will be times during class to work on the group project. During these times laptop use is allowed. If you need to send a text or make a time sensitive phone call, please do so outside of the classroom as to not disrupt the learning environment.

Accommodations for students with special needs and/or disabilities:

If you have a disability that may impact your academic performance, you may request accommodations by submitting documentation to the Student Support Services Office in the Albany Quadrangle (x7156). After you have submitted documentation and filled out paperwork there for the current semester requesting accommodations, staff in that office will notify me of the accommodations for which you are eligible. Please notify me of any special learning considerations that I should be aware of so that we can work together to make the appropriate accommodations.

Course Assignments:

1. Completion of all required readings and active participation in class discussions, groups, and role-plays (75 points)

All assigned readings must be completed in advance of the class in which they are to be discussed. Every student is responsible for coming to class prepared to participate in a meaningful discussion. Classroom group, discussions and role-plays are opportunities to bring up questions about the assigned readings, further your understanding of the concepts under study, and integrate course material into your understanding of research, and integrate material into your clinical practice.

2. Article Critique (100 points- 50 each)

Each student will review and critique two journal articles. Specifically, students will be required to critique journal articles based upon the rationale for conducting the study, the quality and clarity of the hypotheses, research strategies, and collection of the sample, the presentation and interpretation of the results, and the detail of the limitations. Students will be required to critique 1 quantitative research article, and 1 qualitative research article. Requirements for the article critiques are included at the end of the syllabus. **Quantitative article critique due November 1st; Qualitative critique due December 6th.**

3. Research and Stats Game! (25 points)

You and your group will be responsible for creating a research methods and statistics related game. Using concepts and vocabulary learned during the course, you will create a game to be played on the last day of the course. This is a very open ended assignment and it is up to you and your group members what kind of game you want to create. Get creative! You will be given some time in class to work with your groupmates on this assignment. We will play the games the last day of the course. **December 6th**.

4. Group Project (100 points)

The group project is a power point presentation of a research proposal. The research proposal must be a mixed methods project containing both quantitative and qualitative components. Along with your group, you will design a research proposal pertaining to an issue relevant in your field. The proposal must be a systemic problem (ie. related to couples or families). The proposal is a detailed description of a study designed to investigate a given problem in your field. The study you design should contain **both** quantitative and qualitative methods, however it is assumed that it will have one **primary** focus with additional/supplementary information gathered using the other approach.

Your grade will be partially determined by your inclusion and discussion of each element of a proposal. Each person in your group is expected to participate equally and fully in the completion of this project. However, that does not mean that each person must participate equally in each aspect of the task. Working out an equitable distribution of work is part of the process for your group.

A more detailed explanation of the assignment is included in at the end of the syllabus. **Due November 29th**.

Overview of Assignments:

Class Participation	75
Article Critique (2)	100
Glossary Game	25
Group Project	100
Total	300

Final Grading (%)

A = 93-100

A- = 90-92

B + = 88-89

B = 83-87

B- = 80-82

C+ = 78-79

C = 73-77

C- = 70-72

Late papers and assignments: Any assignments turned in late (without previous permission) will automatically receive a 10% reduction in grade.

Course Schedule

This course schedule is subject to change.

September 6

Course Overview

September 13

Ethics and Literature Review

Readings:

Mertens:

Chapter 3 (edition 3: 115-121;
edition 4: 116-125)

Article:

Widom, C. S., Czaja, S., & Dutton, M. A. (2014). Child abuse and neglect and intimate partner violence victimization and perpetration: A prospective investigation. *Child Abuse & Neglect, 38*(4), 650-663. doi: 10.1016/j.chiabu.2013.11.004

September 20

Paradigm

Qualitative and Quantitative overview

Readings:

Mertens: Ch 1

September 27

Overview of Quantitative Research

Experimental Design, Ex Post Facto Research

Readings:

Mertens: Ch 4

October 4

Descriptive Statistics, Sampling, and Everyday uses of Statistics

Readings:

Mertens: ch 11 (edition 3: 309-320;
edition 4: 318-331)

October 11

Measurement, Validity and Reliability

Readings:

Mertens: Ch 12 (edition 3: 351-366 and 380-388;
edition 4: 361-378 and 396-398)

October 18

Inferential Statistics

Structural equation modeling

Readings:

Mertens: Ch 13 (edition 3: 403-421 and 442-445;
edition 4: 417-437 and 458-462)

October 25

Review of Quantitative Research Methods

Quantitative article critique review

Group project review

Readings:

Find an article to write your article critique on. Read and bring to class.

November 1

Qualitative Research Methods

Quantitative Article Critique Due

Readings:

Mertens: Ch 8 (edition 3: 225-241;
edition 4: 235-252)

November 8

Focus groups/Interviews/ observations

Readings:

Mertens: Ch 8 (edition 3: 241-255;
edition 4: 253-267)

November 15

Analyzing & Interpreting Qualitative Data

Quality of Data Collection

Readings:

Mertens: Ch 8 (edition 3: 256-265
edition 4: 268-277)
Ch 13 (edition 3: 423-431
edition 4: 438-446)

November 22

Program Evaluation

Review of Qualitative and Mixed Methods Research

Readings:

Mertens ch 2

Find article for article critique, read and bring to class

November 29

Group Presentations

December 6

Article Critique #2 Due

Game Day!

Last Day of Course

Quantitative Article Critique

The purpose of this assignment is to critically evaluate the current research in your area of interest. Below are questions that you are required to answer. Make sure to answer all of the questions. The questions in the parenthesis are examples of ways you might answer the question.

Please upload the article you used when you submit your article critique. Make sure to follow APA guidelines. Use the same heading provided below. Critique should be at least 4 pages no more than 8.

(Adapted from: Benston, V. L. & MacDermind, S. M. (2003) How to Review a Journal Article: Suggestions for First-Timer Reviewer and Reminders for Seasoned Experts.)

Literature Review

1. What are your thoughts about the author's use of argument? (ie. Do the authors provide a convincing line of argument? Do they make a case as to why this area of research is important? Did they provide claims and evidence? etc..) How could the authors have made the argument more convincing?
2. How well do the authors set the stage for the research question they are studying?
3. How will this study advance the knowledge in the field?
4. What are your thoughts about the writing style? (i.e. Is the writing clear and concise? Do the authors communicate their ideas using direct, straightforward, and unambiguous words and phrases? Have they avoided jargon that would interfere with communication of their procedures or ideas?)

Methods and Procedures

1. How do the authors describe their sampling strategies? (i.e. do they give enough information? What is missing? What could be done to strengthen their sampling strategy?) What are potential strengths or weaknesses to their sampling strategy? How could it impact the results?
2. What detail do they provide about the measures they use? (i.e. reliability and validity) Do they provide enough detail? What is missing?
3. How do the measures used in the study match the research questions?
4. What statistical analysis do the authors use? Do they give adequate justification for using that analysis?

Results

1. In your own words, what are the results of the study?
2. What are your thoughts about the tables and figure provided (ie. Are they clear and succinct? Can they be read easily for major findings by themselves, or should there be additional information provided?)
3. Are the results presented as both statistically and substantively meaningful?

Discussion

1. How do the authors present their findings? (ie. Concisely, accurately, misleading etc.)
2. How do the authors attempt to bring the findings back to the previous literature reviewed?
3. How do the authors address the limitations of their study? What are the limitations that you identified in the article that the authors did not address?
4. What are the clinical implications of this article? How would you use the findings of this article in the clinical room?
5. Overall what are your thoughts about this article? Was it a "good" qualitative study? Use the concepts that we discussed in class on page 268 (4th edition) or 256 (3rd edition).

Qualitative Article Critique

The purpose of this assignment is to critically evaluate the current research in your area of interest. Below are questions that you are required to answer. Make sure to answer all of the questions. The questions in the parenthesis are examples of ways you might answer the question.

Please upload the article you used when you submit your article critique. Make sure to follow APA guidelines. Use the same heading provided below. Critique should be at least 4 pages no more than 8.

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Literature Review

1. What are your thoughts about the author's use of argument? (ie. Do the authors provide a convincing line of argument? Do they make a case as to why this area of research is important? Did they provide claims and evidence? etc..) How could the authors have made the argument more convincing?
2. How well do the authors set the stage for the research question they are studying?
3. How will this study advance the knowledge in the field?
4. What are your thoughts about the writing style? (i.e. Is the writing clear and concise? Do the authors communicate their ideas using direct, straightforward, and unambiguous words and phrases? Have they avoided jargon that would interfere with communication of their procedures or ideas?)

Methods and Procedures

1. What research paradigm are the researchers using? How do you know?
2. What qualitative approach do the researchers use?
3. Do the authors clearly describe their data collection strategies? If not how could it be more clear?
4. Do they present sufficient detail about the sample from which they have collected data? If not what details are missing?
5. What justification for the methods do the authors provide? Does this appear to be adequate?

Results

1. Does the results section answer the research questions posed in the literature review?
2. What are your thoughts about how they have displayed their results? (Do they display their results clearly and succinctly? If not what are your suggestions to make it easier to read and understand?)
3. What evidence or examples do the authors provide (ie quotes)?
4. Are the findings credible? Why or why not? Give examples of strategies the author(s) used to increase the credibility of the study (see page 268 (4th edition) or 256 (3rd edition)) How could have the authors increased the credibility of their study?
5. In what ways are the findings transferable to your group project and the context of your study? What about the study may not be transferable to your study?

Discussion

1. How do the authors present their finding? (ie. Concisely, accurately, misleading etc.)
2. How do the authors attempt to bring the findings back to the previous literature reviewed?
3. How do the authors address the limitations of their study? What are the limitations that you identified in the article that the authors did not address?
4. What are the clinical implications of this article? How would you use the finding of this article in the clinical room?
5. Overall what are your thoughts about this article? Was it a “good” qualitative study? Use the concepts that we discussed in class on page 268 (4th edition) or 256 (3rd edition).

Group Project: Proposal Outline

Introduction/Problem Statement

- Area of Study
 - Statement of the problem
 - Significance of problem
 - Identify the gap and why that gap is important to clinical work
- Paradigm
 - Why did you pick this paradigm? How does the paradigm assumptions fit with your research project?
- Relevance to you and to the field
 - Why did you pick your topic?
 - How will this topic impact your work as a clinicians?

Review of Related Literature

- Current Literature (pick three articles that pertain to your topic)
- Critical analysis of strengths and weakness of previous research
 - Give a **brief** explanation of the article
 - Using concepts we learned about credibility, transferability, dependability and confirmability, talk about the strengths and weakness of the article
 - Make a case for why the article points to the need of your research project

Methodology

- Statement of research questions
 - Quantitative: Statement of the hypothesis- including operationalization of variables and population.
 - Qualitative: Presentation of initial questions and objectives that will focus the study
- Design
 - Quantitative approach and specific design
 - Qualitative approach and design
- Researcher Bias
 - Describe researcher(s) role in terms of relationship to topic, values, etc. How might your relationship to the topic effect the way you collect and analyze the data? What aspects of your lived experience might affect the way you interrupt the results? What aspects of the topic will be the most difficult for you to be unbiased about? How will you mediate these effects?

Sample

- Who is your population of interest?
- How many people are you looking to recruit?
- What are the possible barriers to recruiting this sample?

Data Collection Procedures

- Quantitative: describe the procedure
- Qualitative: describe the procedure

- How will you incorporate credibility, transferability, dependability and confirmability into your study?

Measures

- Quantitative:
 - Provide examples for questions
 - Provide reliability and validity of measures

Qualitative:

- Provide interview questions or observation protocol

Data Analysis Procedures

Quantitative:

- Description of statistical analyses

Qualitative:

- Description of data analysis strategies

Institutional review board (IRB)

First person scenario

- A statement describing everything participants do in the research study. (Pro-tip: do this early, it will help you figure out the details of your study)

Risk/benefit analysis

- What are the possible risks for someone participating in your research? What are the proposed benefits?

Limitations

- Give limitations of your study

Clinical Implications

- Give clinical implications of your study
- How do you see yourself using the potential finding in the clinical room?

Tentative Time Line

Reference page