

COURSE SYLLABUS COVER SHEET
Lewis & Clark College
Graduate School of Education and Counseling

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| Course Name | CPSY 530 – Section 2 |
| Course Number | Research Methods & Statistics I |
| Term | Fall 2010 |
| Department | Counseling Psychology |
| Textbooks/Materials | See attached |
| Faculty Name | Carol Doyle |
| Faculty Phone/E-mail | cdoyle@lclark.edu |
| Faculty Office | Rogers Hall 317 |

Catalogue Description (*copy from current catalogue*):

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.

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,

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. Included in this understanding are models of program evaluation and the use of research findings for program modification. The secondary goal is for students to gain an introductory understanding of measurement issues in research and assessment.

The objectives of this class will be to provide opportunities to learn and apply the skills necessary for evaluating research, including analyzing published instruments, and conducting independent research, including needs assessments and program evaluation. 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, 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 to a research plan (thesis students only)

Additionally, the course will cover the objectives and competencies from your professional organizations. These include:

From the NASP standards,

Students will:

- Have knowledge of research, statistics and evaluation methods
- Be able to evaluate research,
- Be able to translate research into practice
- Understand research design and statistics in sufficient depth to plan and conduct investigations and program evaluations for improvement of services
- Have knowledge of varied models and methods of assessment that yield information useful in identifying strengths and needs in understanding problems and in measuring progress and accomplishments
- Have knowledge of information sources and technology relevant to their work
- Access, evaluate, and utilize information sources and technology in ways that safeguard or enhance the quality of services

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

From the CACREP Standards

- The importance of research and opportunities and difficulties in conducting research in the counseling profession,
- Research methods such as qualitative, quantitative, single-case designs, action research, and outcome-based research,
- Use of technology and statistical methods in conducting research and program evaluation,
- Principles, models, and applications of needs assessment, program evaluation, and use of findings to effect program modifications
- Use of research to improve counseling effectiveness
- Legal and ethical issues in conducting research

Course Calendar: See attached

Course Requirements: See attached

The graded requirements of the course differ dependent on whether you are an M.S. student in the School Psychology program, an M.A. student in the MFT or other program not planning to complete a thesis, or a student working toward admission to the M.S. and planning to complete a thesis. Overall, the requirements of the course include, weekly homework and/or in class assignments, quizzes, the development of a research article critique manual, a journal of questions from the reading, a research methods glossary, a group research project and/or introduction to a research plan, a critique of a research article.

Attendance requirements: Attendance requirements in the Counseling Psychology department are that a student who misses more than one classes may fail the course and that missing more than 3 courses results in an automatic failure. However, if there are any school recommendations regarding the H1N1 or other viruses these requirements will be modified accordingly.

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

Evaluation and Assessment:

Each assignment will be graded via a point system. Generally speaking, the following grades can be associated with the points for each assignment

| | | |
|----------------------------------|---|---|
| 90% of points possible | - | A |
| 80% of points possible | - | B |
| 70% of points possible | - | C |
| 60% of points possible | - | D |
| less than 60% of points possible | - | F |

Additionally, if the requirements for an assignment are met, the points given will be associated with a B⁺. If one exceeds the requirements of the assignment there point total will improve accordingly, Similarly, if the assignment does not meet the requirements point total will decrease accordingly. The points associated with each assignment are attached.

Authorization Levels: All levels

Partial Bibliography:

American Psychological Association (1994). *Publication manual of the American Psychological Association*. (4th Ed.). Washington, DC: American Psychological Association.

Cone, J.D. & Foster, S.L. (1993). *Dissertations and theses from start to finish*. Washington, DC: American Psychological Association.

Creswell (2007). *Qualitative Inquiry and Research Design: Choosing Among Five Approaches* (2nd ed). Thousand Oaks: Sage.

Creswell (2009) *Research Design: Qualitative & Quantitative, Quantitative, and Mixed Methods Approaches* (3rd Ed). Thousand Oaks: Sage

Denzin & Lincoln (2000). *Handbook of Qualitative Research* (2nd Ed.). Thousand Oaks: Sage

Galvan, J.L. (1999). *Writing Literature Reviews*. Los Angeles: Pyczak Publishing.

- Heppner, P.P., Kivlighan, D. M., & Wampold, B.E. (1999). *Research Design in Counseling*. Pacific Grove, CA: Brooks/Cole.
- Holcomb, Z.C. (1997). *Real data. A statistics workbook based on empirical data*. Los Angeles: Pyrczak Publishing.
- Holcomb, Z.C. (1927). *Interpreting Basic Statistics. A Guide and Workbook Based on Excerpts from Journal Articles*. Los Angeles: Pyrczak Publishing.
- Holcomb, Z.C. (1997). *Real data. A statistics workbook based on empirical data*. Los Angeles: Pyrczak Publishing.
- LeCompte & Schensul (1999). *Ethnographer's Toolkit*
- Pryzak, F. *Evaluating Research*. Los Angeles: Pyrczak Publishing.
- Patten, M.L. (2000). *Understanding Research Methods. An Overview of the Essentials*. Los Angeles: Pyrczak Publishing
- Maxwell, J. (1996). *Qualitative Research Design: An Interactive Approach (2nd Ed.)*. Thousand Oaks, CA: Sage
- Mertens (2005). *Research & Evaluation in Education & Psychology (2nd Ed)*. Thousand Oaks, CA: Sage.
- Moustakas, C. (1994). *Phenomenological Research Methods*. Thousand Oaks, CA: Sage.
- Mertler, C.A. & Vannatta, R. A. (2005). *Advanced and Multivariate Statistical Methods. Practical Application and Interpretation (3rd Ed.)* Glendale, CA: Pyrczak Publishing
- Rosenthal, J.A.(2001). *Statistics and Data Interpretation for the Helping Professions*. Belmont, CA: Wadsworth/Thompson Learning
- Weis, L. & Fine, M. (2000). *Speed bumps: A student-friendly guide to qualitative research*. New York: Columbia University, Teacher College Record.
- Wolcott, H.F. (1990). *Writing Up Qualitative Research*. Thousand Oaks: Sage

CPSY 530 - Section 1
Research Methods & Statistics I
 Fall Semester 2010
 Wednesdays 5:30 - 8:45

Carol Doyle, Ph.D.

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“Research is always carried out by an individual with a life and a lifeworld ..., a personality, a social context, and various personal and practical challenges and conflicts, all of which affect the research, from the choice of a research question or topic, through the method used, to the reporting of the project’s outcome. Most research textbooks do not bring the living reality of you, the researcher, into the discussion of research. We believe that the person is always at the center of the process in inquiry – that you will always be at the center of your own research, which in turn will always be a part of you” (Bentz, V. M. & Shapiro, J. J. (1998). *Mindful Inquiry in Social Research*, p 4.)

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School Psychology, MFT, & Non-thesis Students

Thesis Students

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|----------------------|------------|-------------------------|----------------|
| Class Participation | 60 points | Class Participation | 60 points |
| Homework/Assignments | 150 points | Homework/Assignments | 150 points |
| Article Summaries | 60 points | Article Summaries | 60 points |
| Quizzes/Discussions | 80 points | Quizzes/Discussions | 80 points |
| Glossaries | 75 points | Glossaries | 75 points |
| Critique Questions | 75 points | Critique Questions | 75 points |
| Group Project | 120 points | Lit Review/Presentation | 100(20) points |
| Final | 80 points | Final | 80 points |

Final grades will be based on a 700 point total and will be distributed as follows:

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| 630 & above | A |
| 560 - 629 | B |
| 490 - 559 | C |
| 420 - 489 | D |

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

Required Texts:

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

American Psychological Association (2010). *Publication manual of the American Psychological Association.* (6th Ed.). Washington, DC: American Psychological Association.

Supplementary Texts & Workbooks

Leong & Austin (1996). *The psychology research handbook. A guide for graduate students and research assistants.* Thousand Oaks, CA: Sage Publications

Cone, J.D. & Foster, S.L. (1993). *Dissertations and theses from start to finish.* Washington, DC: American Psychological Association.

Tentative Schedule of Classes

| <u>Date</u> | <u>General Topic</u> | <u>“Official” Topic</u> | <u>Readings for Class</u> | <u>Assign/Hmwrk Due</u> | |
|-------------|--|---|---|---------------------------|--------|
| Sept 9 | How and what shall I study? | Class overview Introduction to the Research Process Library Research Evaluating Sources | Mertens p 6 | In class Assignment 1 | 10 pts |
| Sept 16 | Reading/Glossary Check In What is my point of view What is the purpose of my research – what problem am I addressing What is my Question/hypothesis What type of research am I doing | Evaluating Sources Lit Review and writing Frameworks/paradigms Basic, applied, evaluation Research questions Defining variables Overview of differences: Qualitative Quantitative and Evaluation Approaches | Mertens 1, 3 Ch 13- 432 - 446 Additionally read Blue page (In this chapter), 1 st section and Chapter summary for all chapters | A 2 Evaluating sources | 20 pts |
| Sept 23 | Reading/Glossary Check In Who are my participants Treating Participants Ethically Overview of Qualitative Types of Qualitative Designs 5 questions What Qualitative Approach will I use | Defining populations and samples HSRC/IRB standards Intro to Qualitative Methods Qualitative Research Designs | Mertens 11 pp. 309 – 316 (plus boxes on 317), 327-331,335-347 HSRC application OHRP website Mertens 9; 8 (225-241) | A3 | 20 pts |

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|---------|---|--|---|---|----------------------|
| Sept 30 | Reading/Glossary Check In General Methodological Guidelines Who will my participants be Qualitative Methods /Data Collection | Sampling Strategies for qualitative research observation | Mertens 8 pp. 241-253 Mertens 11 (320 – 327 & 332) Mertens 12 366-369 | A 4 | 20 pts |
| Oct 7 | Reading/Glossary Check In Qualitative Methods /Data Collection | Focus groups/Interviews Ensuring Quality of Data Collection | Mertens 8 240-248, 254-255 Mertens 12 370– 378 12 379, 382-383, 388, 389-98 | A 5 | 20 pts |
| Oct 14 | How will I analyze and interpret my data? What does good qualitative research look like | Analyzing & Interpreting Qualitative Data | Mertens 13 423 – 431, 437 – 442 Mertens 8 255-265 | Qualitative – Glossaries due | 20 pts |
| Oct 21 | Summary of Qualitative Evaluation | Group discussions – qualitative designs Program Evaluation & Needs Assessment | Mertens 2 | Qualitative Article summary due Qualitative Discussion | 40 pts 30 pts |
| Oct 28 | Quantitative Research What design will I use? Who will my participants be? | Overview of Quantitative Research Outcome Research Survey Research Single Subject Research Process Research Validity Issues in Sampling Participants | Mertens 4 – 7 Mertens 11 pp. 316-320 | A 6 | 20 pts |

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| Nov 4 | <p>What will my “intervention” look like? What will my “outcome” look like?</p> <p>What is a “Test”</p> <p>Am I measuring what I think?</p> | <p>Designing & Operationalizing Independent & Dependent Variables</p> <p>Tests and Testing Process Norms & Standardization</p> <p>Reliability and Validity Psychometric Issues</p> | <p>Mertens 12 351 – 366</p> <p>Reading to be Assigned</p> <p>Mertens 12 379 – 383, 388-389, 398-401</p> | A 7 | 20 pts |
| Nov 11 | <p>Reading Glossary Check In What do scores mean? How do I interpret my results?</p> | <p>Overview of Statistical Concepts: Descriptive Statistics Normal Curve Standard Scores SEM</p> | <p>Mertens 13 403- 408</p> <p>Reading to be assigned</p> | A 8 | 20 pts |
| Nov 18 | <p>Reading/Glossary Check In How will I analyze my data How will I interpret the results? Lit Review/Article discussion</p> | <p>Analyzing Data Inferential Statistics</p> | <p>Mertens 13 408- 423</p> | <p>Quantitative/ glossaries due Lit review due for grp project due or Quantitative discussion Quantitative article summary due</p> | <p>40 pts 30 pts</p> |
| Nov 25 | Thanksgiving Break | No class | | | |
| Dec 2 | <p>Combining approaches</p> <p>What other types of research might I use in my future practice Lit review/article discussion</p> | <p>Mixed Methods</p> <p>Transformational Designs PAR</p> <p>Group discussion/quiz quantitative design</p> | <p>Mertens 10, 12 378 13 431-2</p> <p>Mertens 8 237-9</p> | <p>Lit review due for grp project due or Quantitative discussion & Quantitative article summary due</p> | <p>40 pts 30 pts</p> |
| Dec 9 | <p>Group Projects</p> <p>Final Pt 1 Putting it all together</p> | Group Projects | | <p>Critique questions due</p> | <p>75pts 40 pts</p> |
| Dec 16 | <p>Group Projects</p> <p>Final pt 2 (Discussion)</p> | <p>Group Projects Final Discussion Thesis Proposal Introduction due</p> | | <p>Article critique due</p> | <p>120 pts 40 pts</p> |

