

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

Please attach completed cover sheet to course syllabus.

Course Name	Research Methods & Statistics I
Course Number	CPSY 530-01
Term	Fall 2009
Department	Counseling Psychology
Faculty Name	Carol Doyle

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.

Guiding Principles/Standards Addressed in Course:

(please check box to indicate which guiding principles/standards from the Conceptual Framework are addressed in this course)

Guiding Principles/Standards	
<u>Learning and Living Environments</u> Create democratic learning communities in which caring, equity, social justice, and inclusion are practiced and diverse perspectives are supported.	X
<u>Disciplinary Knowledge</u> Integrate fundamental and emergent components of disciplinary knowledge in ways that extend and enhance experiences of the diverse individuals and groups we serve. Use this knowledge to augment our own capacity to solve problems, even as we support individuals and communities in problem solving.	X
<u>Professional Practice</u> Engage individuals, families and the professionals who support them in meaningful learning, counseling and therapy, and community-building experiences responsive to individual differences, interests, developmental levels, and cultural contexts.	X
<u>Connection to Community</u> Design learning and counseling activities that cultivate connections between individuals, families, and their communities and region.	X
<u>Professional and Technological Resources</u> Incorporate a wide range of professional and technological resources into experiences that support learning, mental health, and community well-being.	X
<u>Assessment</u> Assess, document, and advocate for the successful learning and living of all people involved in schools and communities.	X
<u>Research and Reflection</u> Adopt habits of personal and scholarly reflection that examine professional practice and lead to systemic renewal.	X
<u>Leadership and Collaboration</u> Lead and collaborate with others to plan, organize, and implement educational and counseling practices and programs that confront the impact of societal and institutional barriers to academic success, personal growth, and community well-being.	X
<u>Professional Life</u> Pursue a professional identity that demonstrates a commitment to the legal, ethical, and professional responsibilities of our profession(s).	X

Authorization Levels (for TSPC-approved programs only):

This course addresses preparation at specific authorization levels through readings and in-class discussions (indicate with an "R" in the appropriate box) and/or through a practicum experience (indicate with a "P" in the appropriate box).

Early Childhood	Pre-Kindergarten-4 th Grade in a preprimary school, a primary school, or an elementary school.	X
Elementary	3 rd -8 th Grades in an elementary classroom or in a self-contained 5 th or 6 th grade classroom in a middle school.	X
Middle Level	5 th -9 th Grades in an elementary, middle, or junior high school, or high school.	X
High School	9 th -12 th Grades in Subject/Dept. Assign. in a High School.	X

*R = Readings and In-class Discussions *P = Practicum

Student Performance:

Student performance criteria appear on page(s) _____ of this syllabus (student performance includes goals, evidence, and levels of performance).

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

Course Name	CPSY 530 – Section 1
Course Number	Research Methods & Statistics I
Term	Fall 2009
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
- Identify each of the steps involved in the development of a research project
- Write research questions and hypotheses
- Understand the ethical issues involved in working with human participants
- Identify and describe various types of quantitative research designs
- Identify and describe various types of qualitative research designs

- Identify the components and models of program evaluations, including needs assessments
- Identify and describe validity issues inherent in different types of designs
- Discuss the use of research findings for program change
- Discuss the issues involved in conducting real world research
- Discuss the impact of culture on various aspects of the research process
- Critically evaluate published research articles
- Design a proposal for research project
- 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

- 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, given the recommendations regarding the H1N1 virus 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:

- 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.
- American Psychological Association (1994). *Publication manual of the American Psychological Association*. (5th 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.
- Galvan, J.L. (1999). *Writing Literature Reviews*. Los Angeles: Pyrczak Publishing.
- Patten, M.L. (2000). *Understanding Research Methods. An Overview of the Essentials*. Los Angeles: Pyrczak Publishing.

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

Carol Doyle, Ph.D.
 Office: Rogers Hall 317 Advising Hours:
 Phone: 768-6067
 E-mail: cdoyle@lclark.edu

“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.)

Course 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.

Requirements:

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, and summaries and critiques of a research articles.

School Psychology, MFT, & Non-thesis Students

Thesis Students

Class Participation 60 points	60 points	Class Participation
Homework/Assignments 150 points	150 points	Homework/Assignments
Article Summaries 60 points	60 points	Article Summaries
Quizzes/Discussions 80 points	80 points	Quizzes/Discussions
Glossaries & Journal 150 points	150 points	Glossaries & Journal
Group Project 120 points	120 points	Lit Review/Presentation
Research Article Critique 100 points	100 points	Research Article Critique
Final 30 points		Final

Final grades will be based on a 750 point total and will be distributed as follows:

675 and above	A
600- 674	B
525 - 599	C
450 - 524	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		In class Assignment 1	10 pts
Sept 16	Reading/Glossary Check In What is my point of view What type of research am I doing	Evaluating Sources Lit Review and writing Frameworks/paradigms Overview of differences: Qualitative Quantitative and Evaluation Approaches	Mertens 1 st page and chapter summary of all chapters Ch 13- 432 - 449 Ch 1 – 3 & 10	A 2 Evaluating sources	20 pts

<u>Date</u>	<u>General Topic</u>	<u>“Official” Topic</u>	<u>Readings for Class</u>	<u>Assign/Hmwrk Due</u>	
	What is evaluation	Program Evaluation & Needs Assessment			
Sept 23	Reading/Glossary Check In What is my Question/hypothesis Who are my participants Treating Participants Ethically	Research questions Defining variables Defining populations and samples HSRC/IRB standards	Mertens 3 pp. 115-116 11 pp. 309 – 316, 327-331 335- 347 (ethics) HSRC application OHRP website		20 pts
Sept 30	Reading/Glossary Check In What Qualitative Approach will I use Who will my participants be	Qualitative Research Designs Sampling Strategies for qualitative research Intro to Qualitative Methods	Mertens 8,9 Mertens 11 (320 – 327 & 332) qualitative sampling	A 4	20 pts
Oct 7	Reading/Glossary Check In How do I use qualitative methods What does good qualitative research look like	Qualitative Methods Focus groups/Interviews	12 (366–378) Mertens 13 420 –7 Mertens’ 13 402, 423 – 431, 437 - 441	A 5	20 pts
Oct 14	How do I use qualitative methods How will I analyze and interpret my data?	Ensuring Quality of Data Collection Analyzing &	12 379, 382-383, 389,	Qualitative –Glossaries due	20 pts

<u>Date</u>	<u>General Topic</u>	<u>“Official” Topic</u>	<u>Readings for Class</u>	<u>Assign/Hmwrk Due</u>	
		Interpreting Qualitative Data	398 - 401	A6 –	
Oct 21	<p>Summary of Qualitative Quantitative Research</p> <p>What design will I use?</p> <p>Who will my participants be?</p>	<p>Group discussions – qualitative designs</p> <p>Overview of Quantitative Research</p> <p>Outcome Research</p> <p>Validity Issues in Quantitative Research Design</p> <p>Sampling Participants</p>	<p>Mertens 4 – 5</p> <p>11 pp. 316-320</p>	<p>Qualitative Discussion</p> <p>Qualitative Article summary due</p>	<p>30 pts</p> <p>30 pts</p>
Oct 28	<p>What will my “intervention” look like?</p> <p>What will my “outcome” look like?</p> <p>Am I measuring what I think?</p> <p>What is a “Test”</p>	<p>Designing & Operationalizing Independent & Dependent Variables</p> <p>Reliability and Validity Psychometric Issues</p> <p>Tests and Testing Process</p> <p>Test Construction Norms & Standardization</p>	<p>Mertens 12 351 – 366</p> <p>379 – 382, 383 – 388, 389-401</p>	A 6	20 pts
Nov 4	Additional Quantitative Designs	Survey Research Single Subject Research Process Research	Mertens 6-7 add'l reading	A 7	20 pts
Nov 11	Reading Glossary Check In What do scores mean? How do I interpret my results?	Overview of Statistical Concepts: Descriptive Statistics Normal Curve Standard Scores SEM	Reading to be Assigned	A 8	20 pts
Nov 18	Reading/Glossary Check In How will I analyze my data How will I interpret the results?	Analyzing Data Inferential Statistics	Mertens 13 (404- 423)	<p>Quantitative /Measurement glossaries due</p> <p>Lit review due for grp project due</p>	40 pts

<u>Date</u>	<u>General Topic</u>	<u>“Official” Topic</u>	<u>Readings for Class</u>	<u>Assign/Hmwrk Due</u>	
	Lit Review/Article discussion			or Quantitative discussion Quantitative article summary due	30 pts
<i>Nov 25</i>	<i>Thanksgiving Break</i>	<i>No class</i>			
Dec 2	Lit review/article discussion Combining approaches What other types of research might I use in my future practice	Group discussion/quiz quantitative design Mixed Methods Transformational Designs PAR	Mertens 10, 12 p. 378 13 pp. 431-2 8 pp. 238-9	Lit review due for grp project due or Quantitative discussion & Quantitative article summary due	40 pts 30 pts
Dec 9	Group Projects Putting it all together	Group Projects		Journals due	150 pts 120
Dec 16	Group Projects Last Class	Group Projects Final Discussion Thesis Proposal Introduction due		Article critique due Final (Discussion)	120 pts 30 pts