



Knowledge to Go Places



The Standard of Excellence  
in Teacher Preparation

Colorado State University  
School of Education  
Course Outline for EDRM600  
**Introduction to Research Methods**  
Summer 2009

*The mission of the Colorado State University graduate program in the School of Education is to model and guide leadership by facilitating learning, discovery, inclusion, and positive change.*

The mission and goal are captured in the following theme:  
*“Leading learning communities.”*

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Office Hours: 9:15 -9:45 am M-R

**Credits:** Three (3) semester credits

**Required Texts:**

Creswell, J. W. (2008). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research, 3<sup>rd</sup> Ed.* Upper Saddle River, NJ: Merrill Prentice Hall.

**Recommended Texts:**

Galvan, J. L. (1999). *Writing literature reviews: A guide for students of the social and behavioral sciences.* Los Angeles, CA: Pyrczak.

Morgan, G., Griego, O., & Gloeckner, G. (2001). *SPSS for Windows: An introduction to use and interpretation in research.* Mahwah, NJ: Lawrence Erlbaum Associates.

**Course Overview:**

The purpose of this course is to introduce you to the fundamentals of designing and completing a research project. You will study both qualitative and quantitative research paradigms. A portion of this course will focus on understanding and interpreting a wide variety of terminologies, data, and evaluation of research articles and studies.

**Knowledge Base:** This course is a master’s level course for students enrolled in masters of education degree at Colorado State University. The knowledge base of this course is founded in the experience of the instructor, textual materials, and resources provided by the School of Education research faculty. The overall purpose of this course is to present the knowledge and skill required by professional counselors and educators to conduct meaningful and appropriate research within the educational setting as well as be informed consumers of research.

**Instructional Methodology:** This course is designed to model a constructivist learning environment that honors the skills and knowledge of the students in the course. A significant portion of class time will be devoted to coverage of textual material, and some course content will be covered through student-led discussions and interactive classroom activities.

**Course Objectives:**

The students will:

1. Understand the scientific approach to conducting research and how it effects the development of a research proposal
2. Find, critique, and summarize research
3. Understand different kinds of research designs
4. Understand issues and procedures for using a variety of data collection and analysis techniques
5. Use technology and statistical methods in conducting research and program evaluation that require basic computer literacy
6. Interpret research data for the multiplicity of needs within an educational setting including the analysis of needs, program evaluation, and program implementation
7. Articulate an understanding of how research can enhance one's effectiveness as an educator, administrator, or counselor
8. Demonstrate understanding of ethical and legal issues relevant to research
9. Produce a research proposal or professional position paper

**Evaluation and Grading:**

1. **Research paper** – You may choose one of the below. These papers and the corresponding poster session may be completed in teams no greater than three. Must be done in APA format.
  - Option 1 - Extensive review of literature or conceptual paper. Most students will select to complete a comprehensive review of literature or conceptual paper around a professional topic of interest. The review should synthesis a variety of data-based research. Often “literature maps” are used to organize the literature review or to draw conclusions from the data reviewed.
  - Option 2 - Write a proposal for a thesis, research report, or program evaluation. This is probably the best option for students who are planning on writing a thesis and know what their research topic is going to be or for students who are in applied programs such as counseling.
  - Option 3 - Write a “mini-research paper.” If you choose this method you will be required to design a study, collect the data, and analyze the data during the semester. Sometimes students who are planning to write a thesis use this option to run a pilot of their research. Sometimes students already have access to data and choose this option to assist them in understanding the data better.

**General Guidelines:** This should be a formal paper on an issue of interest to you as a professional. The body of the paper should be 10 to 15 pages in length, and you should utilize at least 12-15 outside resources (6-10 for options 2 & 3), not more than 50% being electronic resources, and not including the text or literature handed out in class. All font and formatting needs to be in APA style (Chapter 5 of stylebook, beginning p. 283).

Examples of appropriate topics include, alternative teaching strategies, therapeutic interventions, marketing and economic theory, environmental/ag-related issues, and many other topics that you may identify. If you have a concern regarding the adequacy of a topic you are considering, please feel free to come and discuss it with me.

### **For Paper Option 1**

*Sections of your paper should include:*

1. An appropriate title page (APA manual – Section 5.15, beginning p. 296).
2. An acceptable abstract (Section 5.16, p. 298).
3. An introduction that outlines the general background for your topic, why this topic needs to be explored, and the purposes/goals concerning the paper (ie. What you want to learn from an examination of the literature). This may include new knowledge, ideas for professional practice, etc. Essentially, you should go through the process of identifying a research topic, problem, purpose and ultimately a question to be answered.
4. A second section should review current and existent literature on your topic. Within this review you should outline your access strategies (databases used, key words, literature map, etc.), and articulate the strengths and weaknesses of the research that you access (including the research article's adherence to good research practice as learned in this class). Be sure to follow APA guidelines for quoting (Section 3.34, p. 117) and citing material in the body of your paper (Section 3.94-3.103, beginning p. 207).
5. Third, you should synthesize the information gathered through the literature into a comprehensive and meaningful section that identifies and discusses your thoughts and understanding regarding the topic. In essence, what did the literature teach you about the topic? One suggestion is to organize this section thematically.
6. Finally, write a clear and concise conclusion to your paper. Revisit any striking content, but primarily reflect back to your original purpose and clarify how your research met that purpose and/or answered your research question.
7. Any appendices including tables or figures (ex. Literature map). (Section 3.90, p. 205)
8. References (Chapter 4, beginning on p. 215)

You should use headings as appropriate in your paper, and these headings should follow the guidelines presented in the *Publication Manual of the American Psychological Association*, (5<sup>th</sup> ed.) – Section 3.31, beginning on p. 113.

**For Paper Option 2, use guidelines as offered in Figure 10.2, p. 275**

**For Paper Option 3 (Quantitative), use guidelines as offered in Figure 10.3, p. 279**

**For Paper Option 3 (Qualitative), use guidelines as offered in Figure 10.4, p. 281**

***Like Option 1, use appropriate APA style as indicated in above guidelines.***

2. **Quizzes** – You will need to take four 10-point quizzes from the textbook companion site. You may choose to take quizzes from chapters 2-18 in the textbook. Each multiple choice self-assessment contains 20 questions with each being worth .5 points. Access the website and quizzes through the textbook link on the home page. You can use any and all material during the time you take the quiz. Be sure to send your results to my email above.
3. **Article critiques** – You will critique two articles during the semester. Articles to be critiqued will be posted on RamCT. Use figure 10.6 on page 291 as a guide for completing the first critique of

the quantitative research article, and figure 10.7 on page 292 for the second critique of the qualitative article. Use complete sentences when necessary for clarity, ex. in the first question for the quantitative critique an answer may be, “The title reflects the major independent variable (study time) and the major dependent variable (GPA).” Keep in mind that some of the items on the checklist might be more or less relevant for the study under review. Do not just skip items – if you feel they are not relevant state so and provide a short sentence explaining why.

**4. Poster session** – You will present your paper in a poster session. Evaluative guidelines follow.

**1. Content = 15 points** (3 points for each item)

- a. **Problem Statement and Purpose**
- b. **Research Question/Hypothesis**
- c. **Data Collection** (for conceptual projects this includes literature access issues such as databases used and literature maps; for quantitative projects this includes design, sampling, and measures; and for qualitative projects this includes sampling, types of data / data collection strategies, and methods of ensuring trustworthiness).
- d. **Data Analysis** (for conceptual projects this includes synthesis strategies and/or thematic outlines; for quantitative projects this includes descriptive and inferential statistics; and for qualitative projects this includes coding strategies).
- e. **Discussion/Conclusion** (for conceptual paper this includes a summary of what was learned; for the research proposal option this includes a summary of how the proposed project will indeed address “a” and “b” above; for the mini research report this includes preliminary findings).

**2. Presentation = 5 points**

The expectation is that the poster will demonstrate creativity, neatness, and an overall commitment to quality conducive to graduate work..

<b>Assignments/Tasks</b>	<b><u>Points</u></b>
Poster Session	20
Quizzes	40
Article Critiques @ 20 each	40
Research Paper	100
<b>TOTAL</b>	<b>200</b>

**Grading Scale**

<u>% Points Earned</u>	<u>Final Grade</u>	<u>% Points Earned</u>	<u>Final Grade</u>
98-100	A+	77-79	C+
93-97	A	73-76	C
90-92	A-	70-72	C-
87-89	B+	67-69	D+
83-86	B	63-66	D
80-82	B-	60-62	D-
		Below 60	F

### Course Schedule

<u>DATE</u>	<u>TOPIC</u>	<u>READINGS/ASSIGNMENTS TO BE COMPLETED BEFORE NEXT CLASS</u>
July 13 <sup>th</sup>	Introductions Overview of syllabus What is research?	Creswell chapters 1 and 2
July 14 <sup>th</sup>	Qualitative and quantitative approaches	Creswell chapters 3 and 4 Review Human Subjects Website
July 15 <sup>th</sup>	Doing Library Research Meet in Library – EIL 2	Creswell chapter 5
July 16 <sup>th</sup>	Research problem, purpose, and questions	Creswell chapter 10
July 17 <sup>th</sup>	Reporting and evaluating research	Creswell chapter 6
July 20 <sup>st</sup>	Quantitative data collection techniques	Creswell chapter 7
July 21 <sup>st</sup>	Quantitative data analysis and interpretation	
July 22 <sup>nd</sup>	<b><i>Library Research Day – No Class</i></b>	Creswell chapter 11
July 23 <sup>rd</sup>	Quantitative designs	Creswell chapter 12
July 24 <sup>th</sup>	Quantitative designs <b>ARTICLE CRITIQUE 1 DUE</b>	Creswell chapter 13
July 27 <sup>th</sup>	Putting it all together – quantitative methods	Creswell chapter 8
July 28 <sup>th</sup>	Qualitative data collection techniques	Creswell chapter 9
July 29 <sup>th</sup>	Qualitative data analysis and interpretation	Creswell chapter 14
July 30 <sup>th</sup>	Qualitative designs	Creswell chapter 15 and 16
July 31 <sup>st</sup>	Qualitative designs <b>ARTICLE CRITIQUE 2 DUE</b>	
August 3 <sup>rd</sup>	<b><i>Library Research Day -- No Class</i></b>	
August 4 <sup>th</sup>	<b>Paper and Poster Review Day</b>	Creswell chapter 17
August 5 <sup>th</sup>	Mixed Designs	Creswell chapter 18
August 6 <sup>th</sup>	Action Research	Work on paper/poster
August 7 <sup>th</sup>	<b>Paper and Poster Due</b>	

## REFERENCES

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- Salant, P., & Dillman, D.A. (1994). *How to conduct your own survey*. New York: Wiley and Sons.
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