

University of Northern Colorado
SRM 600 – Introduction to Graduate Research
(Project Based Learning Approach)
Fall, 2009
Denver Section – Counseling Program

Instructor:

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Purpose of the Course:

The purpose of this course is to provide an overview of and introduction to basic concepts, terminology, and skills used in conducting educational and behavioral research.

Course Objectives:

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

- Define basic terminology and concepts associated with research
- Understand the relative strengths of quantitative and qualitative research methods
- Identify researchable topics within their field; carry out a mini literature review
- Find and interpret measurement properties of existing tests/instruments
- Critically evaluate published research reports
- Understand the process involved in designing and implementing a research study
- Demonstrate knowledge regarding the protection of human subjects in research
- Design and carry out an observational study
- Compute and interpret basic descriptive statistics (Excel and SPSS)
- Carry out a web-based survey; provide a basic report of findings
- Design and carry out a simple experiment
- Provide body of evidence based on inferential statistics in answering a simple question
- Write a mini research proposal to include introduction, literature review, rationale for the study, description of the design, sample selection, instrumentation/materials, data collection procedures, and planned data analysis procedures.

Textbook:

Ary, D., Jacobs, L. C., Razavieh, A. (2002). *Introduction to Research in Education* (7th ed.). Belmont, CA: Wadsworth/Thomson Learning.

Anticipated Course Schedule:

November 6

evening session

Topics: Overview of the Course
Introduction to Basic Research Concepts/Terminology
Preview of the Research Process
Identifying a Researchable Problem
(*Research Proposal – Project 1*)
Readings: pages 1- 52

November 7

morning session

Topics: Refining the Topic of Study
Searching and Reviewing the Literature
Justifying the Need for a Study
Research Questions/Hypotheses
(*Mini Literature Review – Project 2*)
Readings: pages 53 – 115

afternoon session

Topics: Principles of Experimental Design
Types of Experimental Designs
(*Conducting a simple experiment – Project 3*)
Readings: pages 284 – 354

November 8

morning session

Topics: Ex Post Facto Research
Correlational Research
Survey Research
(*Observational study – Project 4*)
Readings: pages 355 – 379, 385, 399 – 447

afternoon session

Topics: Survey Research – cont'd
Qualitative Research
Selecting the Appropriate Design
(*Survey – Project 5*)
Readings: pages 448 – 488
Exam I

November 20

evening session

Topics: Descriptive Statistics
Standard Scores

Correlation
(*Descriptive Statistics – Project 6*)
Readings: pages 116 – 155, 159 – 165

November 21

morning session

Topics: Sample Selection
Logic of Sampling Error
Principles and Concepts of Inferential Statistics
Different Types of Inferential Statistics

(*Quantitative critique – Project 7*)

Readings: pages 166 – 189, 211 – 215

afternoon session

Topics: Qualitative Data Analysis
Types of Measures

(*Apply to conduct research or obtain archival data – Project 8*)

Readings: pages 216 – 241, 489 – 519

November 22

morning session

Topics: Measurement Validity and Reliability
Locating and Evaluating Measures

(*Reliability/Validity – Project 9*)

Readings: pages 242 – 283

afternoon session

Topics: Your Learning Outcomes Reviewed

Proposal Presentations

Exam II

Grading and Course Requirements:

Grades will be based on two exams (20% each), classroom participation and 9 performance assessments related to the 9 projects (60%). All written assignments will be typed, double-spaced, and APA style.

Class participation and completion of in-class assignments. Class participation comprises attendance, evidence of appropriate class preparation (i.e., reading assigned materials prior to class), and active participation in class activities. In addition, you will be asked to complete additional assignments during the 2 weekend sessions, some of which will be completed during class and some of which will require out-of-class work, e.g., library searches, etc.

Exams. The two exams will consist of multiple choice and short answer questions. Questions will require you to apply concepts to real and/or hypothetical research situations.

Research proposal. Working in small groups, you are to propose a study, which you could conceivably implement at some point in the future. The proposal should include a background/rationale for the study, research questions or hypotheses, description of intended subjects, instrumentation (measures), data collection procedures, and proposed data analyses. The proposal should be written in APA (or another accepted style) and should be around 7 - 10 pages in length. We will discuss possible ideas for studies in class. Specific criteria for the written proposal, which is due November 22nd, are included in the course materials.

Proposal presentation. On the last afternoon of class, your group will present your proposed study to the class. Given the short duration of this course, it is expected that your presentation will be fairly informal but should include sufficient information that your classmates have a clear understanding of what you plan to do and why.