

## **I. COURSE DESCRIPTION**

Techniques of Research teaches research methods and techniques commonly used in education, the behavioral sciences and in the preparation of research reports. The course includes library, historical, survey and experimental research and data analysis.

Fundamental research strategies, both qualitative and quantitative, are examined and applied to educational phenomena. Graduate students are encouraged to consider investigating research problems in education. The development of a research proposal utilizing various research designs is introduced. No prior knowledge of statistics is required.

## **II. RATIONALE**

The major purpose of this course is to provide students with the concepts needed to be able to read, critique, and apply the research literature in their field. This will enable students to make effective professional decisions based upon their critical reading, interpretation and evaluation of research.

## **III. COURSE GOALS/OBJECTIVES**

1. To introduce students to concepts of the underlying philosophical assumptions of behavioral research. (INTASC Principle #9)
2. To comprehend concepts (non-computational) related to descriptive and inferential statistics, such as t-tests, F-tests, Chi Squares, probability levels, alpha levels, Type I Errors, Type II Errors, directional and non-directional tests, and power. (INTASC Principle #9)
3. To introduce students to methodological concepts, and bring them to a minimum level of understanding so they can critique and design research studies. (INTASC Principle #9)
4. To introduce students to the basic conventions of a five chapter format for writing a thesis (which also tends to be the basic five chapters to most behavioral published reports or articles). (INTASC Principle #9)
5. To introduce the student to the theoretical bases, aims, assumptions and methods of qualitative research. (INTASC Principle #9)

6. To identify and describe the qualitative-quantitative interactive continuum as a holistic conceptualization of research
7. Sensitivity to multicultural issues is addressed by asking students to consider the implications and effects of gender, ethnic, and socioeconomic variables in both their research project and their readings. (INTASC Principle #9)

#### IV. COURSE OUTLINE

Week 1	Introduction
2	Lecture
3	Lecture
3	Lecture on Stat chapters 1 & 2
4	QUIZ #1
5	Chapter 1-4; Lecture Stat chapter 5
6	Chapter 5 continued
7	QUIZ # 2; Lecture on research design, Ch. 6 & 7
8	No Class mtg.- Work in groups on Class Projects
9	Research design continued
10	Research design continued
11	QUIZ # 3; Lecture Ch. 1 & 2, Newman & Benz
12	Lecture Ch. 3 & 4, Newman & Benz
13	Lecture Ch. 5, Newman & Benz
14	Work on project
15	QUIZ # 4 (Qualitative research Ch. 1-5), research projects due
	FINALS Week: Present projects

\*\*\*\*\***This outline is tentative and subject to change.**

#### V. REQUIRED/OPTIONAL TEXTS

Newman, I. & Newman, C. (1994). *Conceptual statistics for beginners*. Laham, MD: University Press of America,;

Newman, I. & Benz, C. (1998). *Qualitative/quantitative research methodology: Exploring the Interaction Continuum*. Carbondale, IL: Southern Illinois University Press,;

Techniques of Research. Newman. Video tape study guide. In library. Video may be purchased or viewed in the viewing carrels on the third floor of Bierce Library.

Newman, I. & McNeil, K. (1998). *Conducting survey research in the social sciences*. Laham, MD: University Press of America,;

Newman, I. Benz, C Weis, D & McNeil, K. . (1997). *Theses and dissertations: A guide to writing in the social and physical sciences*. Lanham, MD: University Press of America;

Optional text:

Fraas, J. & Newman, I. (1990). Educational statistics: A workbook. (Available at the Gardner Student Center, Communication Center).

## **VI. INSTRUCTIONAL STRATEGIES/ACTIVITIES/TECHNOLOGY**

Lecture/discussion

Application of class materials

Problem solving situations

Example critiques

Example research proposals

Example Objectives

Example Tests

Video taped materials

Internet Assignments

Specific behavioral objectives given to students and tied directly course goals and test items

## **VII. EVALUATION/STUDENT ASSESSMENT**

Grading Criterion:

4 quizzes @ 125 points = 500 points

Critique of a quantitative study = 100 points

Critique of a qualitative study = 100 points

Design of a Quantitative research study = 200 points

Example Projects and

Internet assignment = 100 points

## **VIII. STUDENT ETHICS AND OTHER POLICY INFORMATION**

For further information about The University of Akron's policies regarding student ethics and conduct, please consult the following sources:

<http://www3.uakron.edu/gradsch/gradbull.html>, then select "General Information" (academic honesty); or [www.uakron.edu/studdev/conduct.html](http://www.uakron.edu/studdev/conduct.html) (Student Code of Conduct). Any student who feels she/he may need an accommodation based on the impact of a disability please consult [www.uakron.edu/access](http://www.uakron.edu/access) and the Office of Accessibility at (330) 972-7928.

## IX. BIBLIOGRAPHY

See required and optional text requirements

also:

Ary, D., Jacobs, L.C. & Razavieh, A. (2002). *Introduction to research in education*, 6th ed. Belmont, CA: Wadsworth/Thompson Learning.

Bogdan, R.C. & Biklen, S.K. (1998) *Qualitative research for education: An introduction to theory and methods*. 3rd. ed. Boston. MA: Allyn and Bacon.

Campbell, D.T. & Stanley, J. (1966). *Experimental and quasi experimental designs for research*. Boston, MA: Houghton Mifflin.

Kerlinger, F.N. (1986). *Foundations of educational research*. 3rd ed. New York, NY: Holt, Rinehart and Winston.

Wiersma, W. (2000). *Research methods in education: An introduction*. 7th ed. Needham Heights, MA: Allyn and Bacon.

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*Date: Spring 2002*