ST. JOHN'S UNIVERSITY
SCHOOL OF EDUCATION
CENTER FOR EDUCATIONAL LEADERSHIP AND ACCOUNTABILITY

DATA ANALYSIS
Professor Jonathan Hughes

Course Description

To develop an understanding of applying the methods of quantitative research for successful planning and decision-making, creating and analyzing baseline data is one of the essential ingredients of good administrative and research practice. Thus, the intent of this course (the first of a series of descriptive research courses including its successor (**Quantitative Methods II**) is to present the process, methods and format for formulating and conducting a descriptive survey research project.

To accomplish those goals, this course aims to:

≅ explain the structure and process of quantitative inquiry and research.

≅ develop the skills and understanding of the quantitative methods available for conducting a survey research project.

≅ understand the types of quantitative research methods of inquiry.

≅ develop a plan for a sample research study specifying the instrument and data-gathering techniques.

≅ present the data array processes and interpretation of findings using visual graphics and a statistical computer package for the social sciences (SPSS)

Although tangentially addressed here, statistical topics related to descriptive research data analysis are more completely addressed in the follow-up course (**Quantitative Methods II).**

Course Prerequisites

EDU 9401 or by special permission of instructor, Center Director, Department Chair, or Dean.
Some familiarity with IBM-compatible personal computer and the Windows operating system is recommended.

Class Meetings/Times

Per Doctoral Program Approved Schedule

Course Instructor

Jonathan T. Hughes, Ph.D.
Professor and Director
Center for Educational Leadership and Accountability
St. John's University, School of Education
Oakdale Campus
631-218-7731 (office)

Office Hours

Tuesday: 1:00 - 5:00 p.m.
Other office hours may be arranged on a call by call basis.

Skill-Based Teaming

Each seminar will be conducted by a professor with administration, personnel, finance and negotiating experience. When appropriate, workshop participants are divided into teams in order to work on class projects designed to introduce and strengthen newly acquired skills in each of the major areas.

Computer Laboratory Experience

Course participants will use IBM laptop personal computers for completion of some classroom laboratory exercises and assignments. Exercises and assignments will be closely coordinated with the topic and course participants will do lab assignments using word processing, spreadsheets, business graphics and other data-analysis software.

Course Credit

Participants may register for **Data Analysis** three graduate credits to be applied towards meeting the course requirements of the St' John's University Doctoral (Ed.D.) degree program.

Course Requirements

There will be a number of reading assignments and problem sets leading up to a culminating project which involves analyzing a set of organizational surveys and constructing an original research project. All problem sets will involve classroom content and possible computer laboratory follow-ups. Students are expected to complete all problem sets no later than the end of class of the second weekend meeting following the distribution of the problem. Completed problem sets will account for 60% of the course grade; the culminating project will account for 40% of the final grade.

Culminating Project

You will be asked to complete the preparation, analysis and research of a recent study recently conducted by a research team examining a local district close to State takeover. A report to the Board of Education outlining a research plan, purpose, objectives, methods, findings and conclusions related to initial goals will complete the project. A more complete detailing of the final project and the procedures to be followed will be discussed in class.

Course Texts

The course draws primarily from two texts, selected readings, and multiple supporting texts. Supplemental texts will be available in the doctoral center office.

Primary Texts:

Alreck, P. And Settle, R. The Survey Research Handbook: Guidelines and Strategies for Conducting a Survey. 2nd Edition, Irwin Professional Publishing, Burr Ridge, Illinois and New York, New York, 1995. ISBN 0-7863-0358-1

Salant, P. and Dillman, D. How to Conduct Your Own Survey. John Wiley and Sons, Inc, New York, NY. 1994. ISBN 0-471-01273-4

Selected Readings on quantitative analysis research methods

Secondary Texts and Materials

Norvik, et. al., SPSS Manual, Chicago, Ill, 1997.

Babbey, Survey Research Methods, Sage Publications, New York, 1991.

Gall, Meredith and Borg, Walter. Educational Research: An Introduction. Longman Publishing, New York, 6th Edition,1996 ISBN 0-8013-1782-7

Wolpert, Edward. Understanding Educational Research in Education. Kendall/Hunt Publishing Co., Dubuque, Iowa, 1984. ISBN 0-8403-3261-0

Other Resource Texts and Materials

There will also be a variety of hand-outs pertaining to course topics, particularly on   quantitative research methods, throughout the course. All lecture and related course materials are on CD-ROM.

Course Reading Assignments

DATA ANALYSIS

Lecture 1   Alreck - Chapters 1-4
               Salant - Chapter 1-5

Lecture 2   Alreck - Chapter 4-8
               Salant - Chapter 6-8

Lecture 3   Alreck - Chapters 9-12
                Salant - Chapters to Completion

Lecture 4   Readings, Cases and Simulation Materials

 COURSE OUTLINE

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  Lectures:

      Lectures 1-2 The Research Process and The Research Proposal
                      Statement of the Problem
                      Definition of Terms
                      Review of Related Research
                      Design and Methodology of the Study
                      Writing the Research Proposal

      Lectures 3   The Survey Instrument
                      The Construct of the Survey
                      The Variables of the Survey
                      Data Types and Statistical Processes
                      Developing a Survey Run-book

Lectures 4   **Statistical Procedures with Descriptive Research Methods**
Introduction to the Statistical Package for The Social Sciences
(SPSS, Chicago, Ill.)
Descriptive vs. Inferential Statistics
Univariate Statistical Procedures
Bivariate Statistical Procedures
Multivariate Statistical Procedures