

August 24, 2001  
Ust602sy101

## SYLLABUS

### APPLIED QUANTITATIVE REASONING II

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UST 602, PAD 602, PDD 602  
Fall, 2001

#### Description

*Prerequisite: UST 601 or permission of the instructor.* This course covers the logic of empirical inquiry and the design of research to solve specific urban problems. Among the topics covered are experimental designs, quasi-experimental designs, measurement, validity, reliability, survey design and analysis, performance measurement, program evaluation, and the dilemmas of research. Students will develop an executable research design as a product of the course.

#### Purpose

The purpose of this course is to introduce students to the logic of empirical inquiry in urban studies, planning, and public administration.

#### Goal

The goal of the course is to make students educated consumers of information. That is, to provide students with the knowledge of research issues and procedures which will allow the students to assess the quality of research conducted by others and to independently conduct research of practical problems in urban studies, planning, or public administration.

#### Objectives

1. Demonstrate an ability to critique the research methodology of research published in academic journals.
2. Demonstrate an ability to design research of a "real world" program or policy.
3. Demonstrate a working knowledge of research issues, methodologies, threats to validity, surveys, measurement, and utilization.

#### Required Books

The following materials are required:

Richard D. Bingham and Claire L. Felbinger, Evaluation in Practice: A Methodological Approach (New York: Chatham House, 2001).

John W. Creswell, Research Design: Qualitative and Quantitative Approaches (Thousand Oaks, CA: Sage, 1994).

Lawrence F. Locke, Stephen J. Silverman, and Waneen Wyrick Spirduso, Reading and Understanding Research (Thousand Oaks, CA: Sage, 1998).

### Projects

Each student will have four projects to complete during the semester.

#### Project #1

Each student will select five research articles on one specific subject that interests the student and will write a comprehensive literature review of these articles and critique of this literature. Locke et. al.'s Form 5.1 will be completed for each article. The Form 5.1s and a copy of each of the five articles will be attached to the literature review. This project is due on October 15.

#### Project #2

Each student will complete a research design of a "real - world" problem, program, or policy. Designs must either "explain" (as opposed to describe or predict) a phenomenon or be a program evaluation design. Topics must be approved by the instructor. Each student will formally present the design to the class using, Powerpoint, on December 3 or 10 . Presentations will be brief (12 minutes). The formal research design (paper) is due to the instructor on December 10.

#### Practical Problems #1 and #2

Students will be randomly assigned into small groups. Groups will be presented with an evaluation research problem and will be expected to develop a research design to effectively evaluate the program and present it to the class. Students will communicate via "Blackboard."

### Grades

Project #1	10%	
Project #2	25%	
Homework #1		10%
Homework #2 (presentation)	10%	
Mid-term Exam	15%	
Practical Problem #1	15%	
Practical Problem #2	15%	

### Course Schedule

The following schedule applies:

<u>Date</u>	<u>Topics</u>	<u>Readings</u>
August 27	Introduction and Library Searches (7:30pm Library, Room 110L, Bill Barrow, Librarian)	None.
September 3	LABOR DAY (NO CLASS)	
September 10	Reading and Understanding Research Performing the Literature Review	Creswell, Ch 1-6, 8. Locke, et. al., pp. 21- 90, 106-113, 149-191.
	An Introduction to Inquiry The Nature of Variables Causation	None

Assignment: Each student will bring a copy of a quantitative research article to class, labeling, and then highlighting with magic marker, (1) the introduction, (2) the purpose statement, (3) the research questions, objectives, and/or hypotheses, (4) the theory being tested, (5) the research design or method, and (6) the data being used. These sections should be highlighted in some detail following Creswell. For example, Creswell (p.42) notes that in introduction must “(a) create reader interest in the topic, (b) establish the problem which leads to the study, (c) place the study within the larger context of the scholarly literature, and (d) reach out to a specific audience.”

Workshop – Use of “Blackboard” (8:45pm)

September 17	<p>Introduction to Program Evaluation The Process of Evaluation</p> <p style="padding-left: 40px;">Types of Evaluation Evaluability Assessments</p> <p>Research Design Reflexive Designs Quasi-Experimental Designs Experimental Designs Regression Designs</p>	<p>Bingham and Felbinger, Ch 1.</p> <p>Bingham and Felbinger, Ch 2.</p>
September 24	<p>Research Design (continued) Internal and External Validity Conceptualization and Measurement</p> <p style="padding-left: 40px;">(Babbie Video) Reliability and Validity</p>	<p>Bingham and Felbinger, Ch 3-4</p>
	<p><u>Assignment:</u> Students will complete Myers-Briggs in class (8:45pm).</p> <p><u>Assignment:</u> Homework assignment #1 is due. Homework consists of one research article and Locke, et. al., <u>Form 5.1</u>.</p>	
October 1	<p>Conceptualization and Measurement (continued) Performance Measurement and Benchmarking</p> <p style="padding-left: 40px;">Special presentation by Dr. Joe Wholey, Director, Strategic Issues, General Accounting Office</p> <p>Operationalization Indexes and Scales (Babbie Video)</p> <p>Myers-Briggs will be returned and discussed.</p> <p><u>Note:</u> Project #1 is due.</p>	<p>None</p>
October 8	<p>COLUMBUS DAY (NO CLASS)</p>	
October 15	<p>The Logic of Sampling</p>	<p>None</p>



December 3	Presentations -- Practical Problem #2	None
	Student Presentations – Project #2	
December 10	Student Presentations – Project #2	None

Note: Project #2 is due.

### Students With Special Needs

It is important that students with physical handicaps, learning disabilities, or others needing special accommodations identify themselves to the instructor immediately so that we can make appropriate arrangements.

### Tutoring

Tutors are available for this course. If you need a tutor, please see Fran Hunter