Prerequisites: An introductory course in social research methods and a good background in statistics, including analysis of variance and multiple regression.

Reading: Most of the required reading for the course is contained in a packet of selected articles and chapters that is available at the L&S Copy Center on the 6th floor of Social Science. In addition, the following three books are on order at University Book Store:


Subject Matter: This course surveys the major research designs and research techniques that are at the core of contemporary approaches to the scientific analysis of social phenomena. Topics covered include the principles of causal inference, experimental and quasi-experimental designs, cohort and case-control designs, survey sampling designs, selection bias, measurement theory, measurement models for continuous and discrete data, and the treatment of missing data. As much as is feasible, the course takes a causal perspective on the issues of design and technique. The assumption is that one aim of social research is to explore and test ideas about the causal connections among social phenomena. The emphasis throughout the course is on the fundamental principles and logic governing various aspects of research methodology design. In other words, this is very much a theoretical rather than applied course. Although there are plenty of practical examples of the various methods and techniques in the required readings, this is most definitely not a "hands-on" course.

Requirements: There will be four in-class, closed-book examinations. The subjects of the exams are: 1) causal inference and research design (two exams); 2) sampling designs and issues; 3) measurement theory and methods.

Grading: Each exam is worth about 80 points. Final grades are a function of the total score on exams. At the end of the semester students are ranked by their total point scores and letter grades are assigned accordingly.

Syllabus

Except for the Stuart, Traub, and DeVellis books listed above, all the readings are from the packet of articles available from the Copy Center.

Introduction


I. Causal Inference


II. Research Design: Experiments and Principles

Validity: Controlling Bias


Reliability: Reducing Error by Blocking, Matching, and Adjusting


III. Research Design: Observational Studies

Compared to Experiments


**Quasi-experiments**


**Cohort and Case-Control Designs**


**IV. Sampling**

**Overview**

1. Alan Stuart, *The Idea of Sampling* sections 1 and 2
Random Sampling

1. Alan Stuart, *The Idea of Sampling* sections 3-13, 16-19

Stratified Sampling

1. Alan Stuart, *The Idea of Sampling* sections 20-31 (skip *30a*)

Cluster and Multi-stage Sampling


Exogenous and Endogenous Sampling


Exogenous and Endogenous Sampling


V. Measurement

Test Score Theory, Reliability and Validity


Scaling


**Latent Variable Models**


**Missing Data**


2. Lohr, Ch. 8 Nonresponse