POS 5706 W 5:00 - 7:40 p.m. DM 457 A Fall, 2000 Dr. Keith Dougherty Office: DM 482B, (305) 348-6429 Office Hours: M & W, 2:00-3:00 p.m. Home: (305) 673-9229 http://www.fiu.edu/~dougherk

#### **Introduction to Research Methods**

This seminar introduces students to the methods of social science. It attempts to demonstrate the importance of internally consistent theory, the methods by which theories are tested, and the statistical techniques used to evaluate theory.

The course is divided into two sections. Roughly two-thirds of the course focuses on testable theories, research design, and comparative method. Readings from Durkheim and Semmelweis -- two researchers who attempted to answer important empirical questions -- motivate this part of the course and lead students through an empirical research design. The second third of the course focuses on statistical inference and hypothesis testing. Students learn how to use statistics and interpret results. Admittedly we will go through statistics too quick for the serious researcher. I suggest that students take POS 6918, or some other statistics course, if they want to learn how to use statistics properly.

Although this is an introductory course with no prerequisites, you may find some of the material rather challenging. In particular, the second part of the course involves knowledge of mathematics (algebra) while formal logic is introduced in the first section. We will approach this material gradually so that no one is left behind, but keep in mind that this course requires strong commitments from you. If you work hard and do all the readings, this course should help you write your dissertation and be a very rewarding.

#### Grading

Your grade consists of a homework assignment, two research designs, a mid-term, and a final. Although attendance is not required, I presume that you will attend all classes and be professional enough to accept the consequences of not attending class. Ask another student for notes if you miss a class and try to catch-up on your own before asking for help.

#### Homework Assignment

The homework assignment tests your knowledge of logic and how logic is applied to normative and empirical theory. It will also help you prepare for the more difficult material on the midterm exam. The homework assignment is worth 10% of your final grade.

#### First Research Design

Your first major project is a research design. This project asks you to create a testable theory and a means of evaluating it, without going so far as to actually test the thoery. Since the first section of the course concentrates on elements of a good research design, this assignment should be easier than it sounds. The first research design comprises 20% of your grade and is the foundation of the second research design.

#### Second Research Design

An additional 15% of your grade is reserved for a second research design which is a natural extension of the first. When the second half of the course begins, you will be divided into groups of two (or sometimes three) and asked to carry out the data analysis needed to evaluate one of your hypotheses from the first research design (yours, your partner's, or a new one that you constructed). You will create a hypothesis and evaluate it using statistical software and the techniques you learned in class.

Working as a group should help you work with the computer, provide a good source of notes, and a give you a partner to study with for the exams.

#### Midterm and Final Exam

The midterm exam covers materials from the first part of the course while the final exam focuses on material from the second part of the course. Both contain multiple choice, problem solving, and short answer questions that evaluate your understanding of the material rather than your ability to answer a particular type of test question. Both will be handed out roughly one week before they are due and administered as take-home exams, worth 25% and 30% of your grade respectively.

	<u>Date</u>	Percent of Grade
HOMEWORK ASSIGNMENT	Sept 20	10%
RESEARCH DESIGN 1	Oct 18	20%
MIDTERM EXAM (take home)	Oct 25	25%
RESEARCH DESIGN 2	Dec 6	15%
FINAL EXAM (take home)	5 pm, Mon, Dec	11 30%

#### Late Assignments and Make-ups

Homework assignments and research designs require a fair amount of analysis time. Please plan ahead to avoid turning them in late. The midterm exam is due on October 25 whether you pick up the exam during the previous class or not. In other words, pick it up late and you have less time to complete it. Late homeworks, research designs, and midterms will be lowered one letter grade for every *working* day they are late. If an assignment is late, it would be a good idea to stick it under my office door (DM 482B) as soon as possible to avoid any unnecessary late penalties. Since I must turn in grades shortly after the exam period, I WILL NOT ACCEPT FINAL EXAMS AFTER THE DUE DATE. NO EXCUSES! Please plan ahead.

#### **Required Texts**

We will read both theoretical and substantive works in this course which vary in length. Unlike most social science courses, you may have to read some of these works two or three times to fully comprehend them. Use a pencil and paper to work out the logic behind the material as you read. It will help.

The following books can be purchased from the campus book store:

- 1. Singleton, Royce A., Bruce Straits, and Margaret Miller Strait. 1993. <u>Approaches to Social Research</u>. New York: Oxford University Press.
- Norusis, Marija J. 1998. <u>Guide to Data Analsysis, SPSS 8.0</u>. Upper Saddle River, NJ: Prentice Hall -- required
- 3. Course Packet -- sold in the campus book store and designated by a "CP" below (Required).

Schedule of Topics and Readings

# I. RESEARCH METHODS IN THE SOCIAL SCIENCES

#### Introduction: Can there be a science of politics?

- Aug 30 Introduction
- Sept 6 <u>Required</u>: \*Singleton and Straits, <u>Approaches to Social Research</u>, skim Chapter 1, Chapter 2, & Chapter 4.

SEPT 6: NO CLASS, APSR MEETINGS

### **Propositional Logic and Consistent Theory**

- Sept 13 <u>Required</u>: \*Singleton and Straits, <u>Approaches to Social Research</u>, Chapter 3.
- Sept 20 <u>Required</u>: \*Gilpin, <u>The Political Economy of International Relations</u>, p. 72-80 and 85-92, (**CP**) \*Keohane, <u>After Hegemony</u>, p. 135-150, (**CP**)

<u>Recommended</u>: \*Salmon, Wesley. 1984. <u>Logic</u> (on reserve in Green Library).

#### Semmelweis and Durkheim: a scientific approach

Sept 27 <u>Required</u>: \*de Kruif, "Semmelweis: Savior of Mothers," p. 35-47 (**CP**) \*Aron, "Le Suicide," p. 24-34, (**CP**)

### **Comparative Method**

Oct 4 <u>Required</u>:

\*Lijphart, "Comparative Politics and the Comparative Method," p. 682-693 (CP)
\*Ostrom, Parks, and Whitaker, "Do we Really Want to Consolidate Urban Police Forces?" p. 423-432 (CP)
\*Nisbett and Wilson, "Telling More Than We Can Know: verbal reports on mental processes," p. 231-259 (CP)

<u>Recommended</u>: \*Singleton and Straits, <u>Approaches to Social Research</u>, Chapter 11.

#### **Causation and Measurement**

Oct 11 <u>Required</u>: \*Singleton and Straits, <u>Approaches to Social Research</u>, Chapter 5 (p. 99- 117 only). \*Ferman, "Collecting the Data" p. 32-40 (**CP**).

> <u>Recommended</u>: \*Singleton and Straits, <u>Approaches to Social Research</u>, Chapter 8.

#### **Experimental Method**

Oct 18 <u>Required</u>: \*Short Reading on the Prisoners' Dilemma -- TBA. \*Cain, 1998, "An Experimental Investigation of Motives and Information in the Prisoners' Dilemma Game," p. 133-160 (**CP**)

### From Experiments to Naturally Occurring Data

Oct 25 No Readings -- take home exam

# Sampling and Survey Design

# Nov 1 <u>Required</u>:

\*Singleton and Straits, <u>Approaches to Social Research</u>, Chapter 9 & Chapter 10.

<u>Recommended</u>: \*Singleton and Straits, <u>Approaches to Social Research</u>, Chapter 6 (p. 134-149 only). **II. BASIC STATISTICS** 

### **Frequency and Central Tendency**

Nov 8 <u>Required</u>: \*Norusis, <u>Guide to Data Analysis</u>, SPSS, Ch. 3-6

### Testing a single parameter

Nov 15 <u>Required</u>: \*Norusis, <u>Guide to Data Analysis</u>, SPSS, Ch. 11

NOV 22: NO CLASS, THANKSGIVING BREAK

### **Chi-Squared Test**

Nov 29 <u>Required</u>: \*Norusis, <u>Guide to Data Analysis</u>, SPSS, Ch. 7 & 16

> Recommended: \*Bueno de Mequita, <u>War Trap.</u> p. 1-6 & 127-131 (**CP**)

### Simple Regression

Dec 6 <u>Required</u>: \*Norusis, <u>Guide to Data Analysis</u>, SPSS, Ch. 19 & 20

> <u>Recommended</u>: \*Freedman, David, et al. 1998. <u>Statistics</u>. (on reserve in Green Library).