

SOCIOLOGY 302 — RESEARCH METHODS
Professor David Hachen
Spring 2005

Class Meetings: Tuesday and Thursday from 2 – 3:15 p.m. in 215 DeBartolo.

Communication:

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Office Hours: Thursdays from 3:30 – 4:30 in 747 Flanner. Please do not hesitate to take advantage of my office hours. If you can not make it during this time I will gladly arrange a meeting at another time.

Course Objectives: Often when we think of research, we think of a research report or article in which a researcher presents his/her major findings. However, such research reports are only the final *outcome* of a research *process* which involves the making of difficult *decisions* at critical junctures. Researchers must delimit their topics, pose relevant questions, formulate testable hypotheses, develop means of measuring variables, design samples, and decide how to collect information. The purpose of this course is to provide students with an in-depth introduction to research methods by focusing on the critical decisions researchers make when conducting research. The course begins with discussions of the nature of scientific research including both the "products" of research and the processes through which such "products" are produced. We will then discuss the basic elements of research design (units of analysis, variables, relationships, hypotheses), measurement and sampling issues. The remainder of the course deals with four methods of collecting data: surveys, experiments, research using available data, and field research.

The explicit focus of this course is on research *design*. Minimal coverage will be given to data analysis techniques and presentation of research findings. Upon completion of the course you should be able to (1) design research projects that can answer questions of interest to you and (2) critically evaluate the research conducted by others.

Course Organization: The course is organized into seven modules: The Nature of Scientific Research, Elements of Research Design, Measurement, Sampling, Surveys, Experiments, Research Using Available Data and Field Research (see course schedule below). Because the explicit focus of this course is on the decisions researchers make in designing and conducting research, each module has been organized so as to provide students with the opportunity to actively engage in making research decisions and evaluating the decisions other researchers have made.

(1) **In-class exercises:** Many of the modules contain in-class exercises designed to illuminate material in the text and provide you with the opportunity to make research decisions.

(2) **Research Readings:** In each module we will be reading excerpts from M. Patricia Golden's anthology *The Research Experience*. Golden's book contains both research articles and accompanying "personal journals" written by the researcher which discuss the decisions they made, the reasons for these decisions, and the problems they encountered in conducting the research. Though these articles are somewhat outdated, this is the only collection of research articles that contains the researcher's personal accounts of how they went about doing their research

(3) **Class Projects:** Students are required to complete a series of five (5) projects. The first two projects will be conducted individually, while the remaining projects will be group assignments. After completing Project #2, you will be assigned based on their research interests to *research teams* consisting of 4 members. Each research team will reviewed relevant literature (Project #3), create a survey research proposal (Project #4) and create an experimental design proposal (Project #5).

(4) **Homework Groups:** You will be assigned to a homework group consisting of 4 members. For each of the 8 modules, you are required to complete a homework assignment before class. You will then meet with your homework group during class and go over the homework collectively, helping each other to better understand the material and correct mistakes. The homework assignments will then be handed in and graded (see "Course Requirements" section below).

Readings: Students are required to read select sections from Golden's *The Research Experience* **prior** to discussing these materials in class (see schedule below) and to bring a copy of the article to the class session in which it is discussed. Study questions to guide you through the readings will be handed out in advance. You are also required to read assigned chapters from the research methods text entitled *Approaches to Social Research*. I will not present detailed lectures on the material in this text. Rather we will use both in-class exercises and discussions of the research readings to illuminate material covered in the text. Students are, therefore, expected to read assigned chapters **prior** to beginning each module.

I have ordered through the Notre Dame bookstore:

Approaches to Social Research, 4th Edition by Royce Singleton and Bruce Straits.
2005. New York: Oxford University Press.

The Golden reader is out of print but still under copyright, preventing the University from putting multiple chapters online through WebCT. Therefore, the library has purchased three copies of Golden and placed them on 2-hour reserve. Please plan ahead and photocopy required readings.

Class Projects: Students are required to complete a total of five (5) projects during the semester. The objective of these projects is to give you the opportunity to actively participate in making decisions concerning the design of research projects which, if conducted, would address issues of interest to you. Two of these projects are individual projects, the others will be done

collectively. Below I briefly discuss each of these projects. A handout with more detailed information on each project will be provided later. Due dates for completion of each project are provided in the summary table below and in the course schedule. **All projects must be handed in during class on the date they are due (see schedule below)**

Project # 1 - Tentative Research Topic and Questions: After thinking about topics and issues you are interested in, you must submit a one page paper which briefly details this topic, the reasons you are interested in it, and questions you have pertaining to the topic. This assignment will facilitate my organization of the first two weeks of class around issues of interest to class members. In addition this assignment will form the basis for your second project. This short paper will not be graded, though failure to complete it will adversely affect your grade.

Project #2 - Hypothesis Formulation: After the first two modules I will ask you to concretize your topic by rigorously stating a testable hypothesis related to your topic. Such a statement will include a discussion of the units of analysis, variables, and relationships among variables. Students will be allowed to choose new topics at this stage. After evaluating each student's work I will create research teams. These groups will work together on the three group projects.

Project #3 - Literature Review: Each research team will get together to clarify their research topic. Each member of the team will then research, locate, read and summarize **two** research articles pertaining to the group's topic. These summaries will be handed in and circulated among the members of your research team.

Project #4 - Survey Research Design: After completing the literature review, each team will design a survey research project. The whole group is expected to collectively participate in specifying conceptually and operationally the hypotheses, identifying problems that need to be addressed, and designing the survey research project. Each group will also collectively devise a division of labor for specific tasks to be completed by individuals. The final proposal will contain information on the hypotheses to be tested, measurement issues, sampling design, data collection mode (e.g. interviews or questionnaires), survey design (e.g. cross-sectional, longitudinal), and questionnaire construction. As such this project deals with material covered in the modules on measurement, sampling and surveys. *Each proposal must contain a table of contents listing the sections of the proposal and who was responsible for each section.* This will allow me to evaluate the proposal as a whole, as well as each individual's contribution.

Project #5 - Experimental Design: This project will be similar to Project #4 except this time each group will design an experiment. Each group's proposal will contain information on the hypotheses to be tested, experimental setting (laboratory or field), sampling procedures, the staging of the experiment, the cover story, the manipulation of the independent variable(s), measurement of the dependent variable, debriefing procedures, experimental design (e.g. true experiment, quasi-experiment, evaluation research), and possible threats to the internal and external validity of the results. Again each group will be responsible for developing a division of labor, and proposals will be evaluated both collectively and individually.

Course Requirements: There are four sets of requirements for this course.

(1) Examinations: There will be three examinations, two exams during the semester and a non-cumulative final. The first exam will contribute 10% to your grade; the other two exams will contribute 15% each. The exams will test your ability to apply concepts and methods through the use of problem solving questions and questions on the research readings. Prior to each exam a review session will be held.

(2) Projects: Together the five projects will contribute 40% to your final grade (see table below for details).

(3) Homework: For each of the 8 modules you are required to submit a homework assignment covering material in the text which you will go over in your homework groups. Each assignment will be graded on a 0-10 scale, except the homework on surveys and experiments which will be graded on a 0-20 scale because two chapters will be covered. Your scores on all the homework assignments will be summed to form a 0-100 scale, and this will contribute 20% to your final grade.

(4) Class Participation: **Students are required to attend class and participate in class exercises and discussions.** Remember to *always* bring the textbook and when required a copy of the reading from the Golden book.

Make-Up Examinations and Late Papers: My policy is that there will be no make-up examinations. Late projects and homework assignments will not be accepted.

Summary of Course Evaluation System and Due Dates		
<u>Assignment</u>	<u>Due Date</u>	<u>% of Final Grade</u>
Project #1 - Topic	1/13 H	--
Project #2 - Hypothesis Formation	1/27 H	5%
Project #3 - Literature Review	2/24 H	5%
Project #4 - Survey Research Design	3/31 T	15%
Project #5 - Experimental Research Design	4/19 T	15%
SUBTOTAL - Projects		40%
Exam #1 - Modules I & II	2/1 T	10%
Exam #2 – Modules III, IV, and V	3/24 H	15%
Final Exam - Modules VI-VIII	5/6 F	15%
SUBTOTAL - Exams		40%
Homework	—	20%
TOTAL		100%

COURSE SCHEDULE AND READINGS

I. THE NATURE OF SCIENTIFIC RESEARCH

Readings:	<ul style="list-style-type: none">• <i>Approaches to Social Research</i>, Chapters 1 & 2, pp. 1-39; Chapter 17, pp. 540-548.• Golden, <i>The Research Experience</i>, Chapter 1, pp. 3-31
Homework:	<ul style="list-style-type: none">• p. 13: # 2• pp.39-40: # 1, 3, 4, 6, 8, 11, 14, 16, 17, 19.

1/11 T

- Introduction to course; What is science exercise?

1/13 H

- What do I do when I do research?; Scientific and non-scientific questions; Scientific products and processes.
- **Project #1 due (Tentative Topic)**
- **Hand in Questionnaire**

1/18 T

- Using Internet Bibliographic Resources to find Literature
- Homework (HW) #1 due (Chapters 1 & 2).

II. ELEMENTS OF RESEARCH DESIGN

Readings:	<ul style="list-style-type: none">• <i>Approaches to Social Research</i>, Chapter 3, pp. 43-75• Doob and Gross, "Status of Frustrator as an Inhibitor of Horn-Honking Responses," [in Golden] pp. 481-494.
Homework:	<ul style="list-style-type: none">• Pp. 73-75: # 2, 4, 5, 7, 8, 13, 14, 16, 17.

1/20 H

- Units of analysis and the ecological fallacy; Variables

1/25 T

- Relationships among variables; Causality and spuriousness; Hypothesis formulation
- Units of analysis and variables exercise

1/27 H

- Discuss Doob & Gross
- **HW #2 due (Chapter 3)**
- **Project # 2 due (hypothesis formulation)**

1/31 M

Evening Review Session

- **HW #4 due (Chapter 5)**
- Discussion of Jones
- ***Research Teams Meeting***

V. SURVEYS

Readings:	<ul style="list-style-type: none">• <i>Approaches to Social Research</i>, Chapters 8 & 9, pp. 219-305• Ransford, "Isolation, Powerlessness and Violence," pp. 292-314.• Schuman, "Two Sources of Antiwar Sentiment in American," pp. 267-291.
Homework:	<ul style="list-style-type: none">• Pp. 260-261: 4, 6, 9, 13, 18, 20, 25, 28• Pp. 302-304: 3, 4, 5, 7, 8, 10, 13, 14, 15, 17, 19

3/3 H

- Survey Research Designs; Cross-sectional surveys; longitudinal designs

SPRING BREAK

3/15 T

- Data-Collection Modes
- Discussion of Ransford
- ***Research Teams Meeting***

3/17 H

- Survey Instrumentation; Open- and closed-ended questions; Writing items

3/22 T

- **HW #5 due (Survey Chapters 8 & 9)**
- Discussion of Schuman
- ***Research Team Meetings***

3/23 W

Evening Review Session

3/24 H

Exam #2

VI. EXPERIMENTS

Readings:	<ul style="list-style-type: none">• <i>Approaches to Social Research</i>, Chapters 6 & 7, pp. 155-218.• Darley and Batson, "'From Jerusalem to Jericho'," pp. 191-214.• Goldstein and Arms, "Effects of Observing Athletic Contests on Hostility," pp. 241-258.
Homework:	<ul style="list-style-type: none">• Pp. 185-6: # 1, 2, 4, 5, 7, 10, 12, 15, 24, 26• Pp. 216-217: # 3, 4, 5, 6, 7, 9, 11, 19, 20, 21

3/29 T

- Experiment exercise: Causality, control group, random assignment, sampling, staging, manipulation checks

3/31 H

- Experiment exercise continued: threats to internal and external validity
- Experimental and quasi-experimental designs
- **Project #4 due (Survey Research Design)**
- ***Research Teams Meeting***

4/5 T

- Field Experiments
- Discussion on Darley and Batson

4/7 H

- Discussion of Goldstein and Arms
- **HW #6 due (Experiment Chapters 6 & 7)**
- ***Research Teams Meeting***

VII. RESEARCH USING AVAILABLE DATA

Readings:	<ul style="list-style-type: none">• <i>Approaches to Social Research</i>, Chapter 11, pp. 345-380.• Levin and Spates, "Hippie Values," pp. 390-411.• Kasarda, "The Impact of Suburban Population Growth on Central City Functions," pp. 412-431.
Homework:	<ul style="list-style-type: none">• Pp. 378-380: # 1, 3, 5, 10, 11, 14, 17, 20, 21, 22, 23.

4/12 T

- Types of Available Data, Pros and Cons of Using Available Data
- Discussion of Kasarda
- ***Research Teams Meeting***

4/14 H

- Content Analysis

