

ESP 178 Applied Research Methods

SYLLABUS

Winter 2008

- Lectures:** TTh 10:30-11:50
103 PhyGeo Building
- Sections:** Th 1:10 – 2:00 in Wickson 2120J
Th 2:10 – 3:00 in Olson 244
- Instructor:** Susan Handy
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- Teaching Assistant:** Tuyeni Mwampamba
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Course Objectives

Of the millions who watch sports events, a vanishingly small percentage can play any of the games they watch with anything approaching professional skill, yet virtually all understand the rules well enough to appreciate what they see. The public must then, in the same way, understand science if it is to react intelligently. They must at least be capable of following the game, even if they can't play it.

- Isaac Asimov, 1980.

The purpose of this course is to train students in the fundamentals of research design in the social sciences. Many students will take jobs after graduation where they will, occasionally or frequently, oversee the research process – developing problem statements, issuing calls for proposals, evaluating proposals, choosing a research team, monitoring the research process, using research results in the policy process. Some students will return to graduate school, where they will receive further training in the scientific research process, and may choose a career in research in one field or another. Whatever job students take, they are likely to make use of research produced by others to understand problems and evaluate potential solutions. In fact, all students are consumers of research, whether they realize it or not, throughout their daily lives. With the understanding of research design that students gain through this course, they can be more critical and more effective as both consumers and producers of social science research.

The first third of the course will provide an introduction to the concepts and structure of scientific inquiry. You will develop an understanding of the fundamental distinction between inductive and deductive reasoning, the processes of conceptualization and measurement, the concepts of validity and reliability, and the basic elements of research design. In this section, you will learn how to turn a general research question into valid measures of the real world. The remainder of the course will provide an introduction to ways of collecting, analyzing, and presenting data. You will learn the basics of sampling, survey design, qualitative field research, and using census data and other secondary sources, and you will gain experience in analyzing both quantitative and qualitative data. By the end of the course, you will be conversant in the language of social science research and know what questions to ask of yourself and others in the design of research projects and the use of research results.

Assignments and Grading

You will complete three kinds of activities on which you will be graded: in-class exercises, a research proposal, and a mid-term and final. Lectures, readings, and discussion sections are designed to help you successfully complete these activities – the more that you do, the more that you'll learn, and the better grade you'll earn.

In-Class Exercises:

For the most part, Tuesday sessions will be devoted to lectures, and Thursday sessions will be devoted to in-class exercises. The purpose of these exercises is to improve your understanding of the concepts you are reading about in the textbook and to give you hands-on experience with applying these concepts. Two types of exercises will be spread throughout the quarter: reviewing and applying key concepts from the textbook and reading and critiquing research articles. In these exercises, you will work in small groups of three to four students to complete an assigned task during a portion of the class period.

For each exercise, the members of the group will choose specific roles, as described in a separate handout: facilitator, recorder, and reporter. At the end of the period, the reporter for each group will give a brief summary of her group's results, and the class will discuss issues that arose during the course of the exercise. The recorder for each group will turn in his notes, with the names on the group members, to the instructor at the end of the class. You will be graded on the percentage of exercises in which you participate.

Research proposal:

You will prepare a research proposal over the course of the quarter. The purpose of the research proposal is to give you experience in developing a research question, designing a study to address that question, and clearly and concisely describing the proposed study. This assignment will be divided into five stages, designed to help you work towards the final proposal and to enable feedback from me along the way. The assignment is described in more detail in a separate handout. Each stage of the assignment will be separately graded.

Mid-term and final:

A midterm and a final will also be given. The purpose of these exams is to ensure that you have acquired an adequate understanding of the material covered in the class. The midterm will be given in the fifth week of the quarter and will cover material from Week 1 through Week 5 (Chapters 1, 3, 4, 5, 6, and 7). The final will be given during the assigned finals period for the course and will cover the material from Week 6 through Week 10 of the course (Chapters 8, 9, 10, 12, 13, and 14) as well as material covered on the midterm.

Grading:

The breakdown in grading for these assignments is as follows:

- In-class exercises: 10%
- Research proposal:
 - Question and background: 5%
 - Literature review: 10%
 - Design and measures: 10%
 - Data collection and budget: 10%
 - Proposal: 25%
- Exams:
 - Midterm: 10%
 - Final: 20%

Late papers will NOT be accepted for full credit except with acceptable documented reason, prior permission, or because of a medical emergency. A late paper without an acceptable written excuse will lose one grade step per day for each day it is late. Rewrites will not be accepted; you have time to meet with me or the TA for clarification and/or explanation prior to the assignment due date and you should avail yourself of this opportunity.

Readings

The textbook for the course is Russell Schutt's *Investigating the Social World*, 5th Edition. This edition is available in the UCD Bookstore. Although I recommend buying the 5th Edition, it is OK to use the 4th Edition: the differences are not huge, and I list the relevant chapters for both editions in the schedule. Both editions come with a CD-ROM with interactive exercises and demo versions of software packages. In addition, through the website of Pine Forge Press, the publisher of the textbook, you have access to materials to help you review the material covered in the text. To access the site, go to: <http://www.pineforge.com>, click on the "study sites" tab, and look for our textbook. Use of the CD-ROM and the website is optional.

In addition, you will read several articles or portions of articles throughout the quarter, as specified in weekly assignments, that illustrate the use of the concepts covered in class or provide additional insights into selected aspects of the research process. These articles are available as a course reader at Davis Copy Shop (formerly Navin's), 231 3rd Street. Additional readings may be assigned and will be available through the course website (accessible through MyUCDavis). The website also links to a variety of helpful resources. We will discuss the assigned readings from articles either in class or in discussion sections.

Sections

Although attendance at sections is not directly accounted for in your grade, it will help your grade considerably. Activities during sections will aim at two goals: helping you develop different aspects of your research proposals, and giving you practice in understanding and critiquing research articles. You will need the latter skill on both the midterm and the final. Selections from the articles in the course reader will be assigned before sections. Please bring your reader to sections.

Expectations

I expect you to attend class, read assigned chapters and articles, participate in in-class exercises and discussion sections, and submit an original proposal that reflects your own original work. Plagiarism, the intentional or inadvertent use of someone else's work without appropriate credit, will not be tolerated! Cutting and pasting material from the web and claiming it as one's own is a serious offense that merits disciplinary action. Lots of useful websites are available to help you determine when citations are appropriate and to avoid accidental plagiarism (e.g., this site at UCD: <http://sja.ucdavis.edu/avoid.htm>). I encourage you to discuss your work with your classmates in discussion sections and outside of class, but the work you submit must be your own.

Learning is ultimately your responsibility, but I have an obligation to facilitate that learning by providing a coherent guide to the course material and assigning activities that give you an effective opportunity to apply that material. You can expect me and the TA to provide clear direction and timely feedback on assignments and to provide adequate response to questions and concerns. You can expect me and the TA to be fully prepared for class sessions and available during office hours.

Students who require special accommodations because of disabilities should visit the Disability Resource Center (<http://drc.ucdavis.edu/>) at the beginning of the quarter. I will not be able to provide for special accommodation unless the student has first gone through the process required by the DRC. Students who will be missing class or cannot meet assignment deadlines for religious or medical reasons or for essential family business should let me know as far ahead as possible and must provide written documentation if I request it.

Schedule

The schedule for the course is outlined below. Classes will alternate between lectures and in-class exercises. I expect you to complete assigned readings before each class. Discussion sections will focus on reviewing the material covered in class that week, preparing for the midterm and the final exam, and building the skills necessary to complete the proposal assignment. Due dates for the five stages of the proposal assignment are evenly spread at two week intervals across the 10 weeks of the quarter. The midterm is scheduled for February 7, and the final is scheduled for Saturday, March 22. Changes in the schedule will be announced in class and posted on the class web page (accessible through MyUCDavis).

ESP 178 Schedule

Date	Day	Topics	Readings	Th Section	Proposal Due Dates
1/8	Tues	Social science and research process	Ch. 1, 3 (2 instead of 3 in 4th ed.)		
1/10	Thurs	Conceptualization and measurement	Ch. 4	Introductions and "what is science?"	
1/15	Tues	Exercise - conceptual model	Articles as assigned from reader		
1/17	Thurs	Sampling	Ch. 5	Discussion of topics	
1/22	Tues	Exercise - sampling plan	Articles as assigned from reader		1. Question and background
1/24	Thurs	Causation and design	Ch. 6	Literature search	
1/29	Tues	Exercise - causality concepts	Articles as assigned from reader		
1/31	Thurs	Experiments	Ch. 7	Review for midterm	
2/5	Tues	Exercise - experimental design	Articles as assigned from reader		2. Literature review
2/7	Thurs	Midterm		A day off	
2/12	Tues	Survey research	Ch. 8		
2/14	Thurs	Exercise - survey questions	Articles as assigned from reader	Human subjects	
2/19	Tues	Exercise - scales	Articles as assigned from reader		3. Conceptualization and research design
2/21	Thurs	Quantitative analysis	Ch. 14 (12 in 4th ed.)	Survey workshop	
2/26	Tues	Exercise - lab on data analysis - 1137 PES	Articles as assigned from reader		
2/28	Thurs	Historical research and existing data	Ch. 12, 13 (11 in 4th ed.)	Survey workshop	
3/4	Tues	Exercise - lab on Census data - 1137 PES	Articles as assigned from reader		4. Data collection and budget
3/6	Thurs	Qualitative research and analysis	Ch. 9, 10 (13 instead of 10 in 4th ed.)	TBD	
3/11	Tues	Exercise - focus groups	Articles as assigned from reader		
3/13	Thurs	Research process and wrap-up		Review for final	5. Full proposal
3/22	Sat	Final - 10:30			