

Sociology 562 Quantitative Methods

Professor: Kathy Kuipers
Office: Social Science, room 311
Hours: Monday (11-1:00), Tuesday (2:10-4), and by appointment
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Course Objectives: *Quantitative Methods* is a course designed to acquaint you with quantitative research methods: the philosophy and logic of research design, its relationship to theory, the main quantitative techniques used by sociologists, and a brief introduction to data interpretation. Since the emphasis will be upon learning how to design and implement research projects, each student will be doing a series of exercises practicing techniques and methods used for quantitative research, analyzing quantitative studies, and conducting mini-studies (pretests) of his or her own.

The course begins by taking a look at research methods in general and the reasons for using different methods. We will also discuss ethical issues confronting those who conduct research on human subjects. Each of the succeeding sections of the course is organized around a research technique and ends with an exercise designed to give you some experience in using that technique. An additional section focuses on data analysis: some elementary computing and the interpretation of statistical results. Finally, the end of the course will focus on the presentation of findings, resulting in a proposal for a research project investigating your own questions using the methods covered in the course.

Course Requirements: This is an active participation seminar. You are expected to attend ALL class meetings and to actively participate in discussions every class session. You should complete the assigned readings for each section before you come to class. Your class participation will be worth 15% of your final grade. Class time will be devoted to discussing and clarifying the assigned readings, presenting additional materials that complement the readings, giving background information, clarifying issues, answering questions, and guiding you in your exercises and research proposals. You are responsible for raising questions in class that you have about the readings or about problems that you have in conducting your research projects.

There are four exercises that will form 15% of your grade. You will receive clear guidelines for the structure of the write-ups of the exercises in class and they will be due the following week. LATE ASSIGNMENTS WILL BE PENALIZED (points deducted) and, after a certain period, will no longer be accepted. Three mini-projects, involving actual data collection, also will be due (a survey, an experiment, and a secondary data analysis) and each will count for 15% of your grade. You are required to complete only two of the three mini-projects. The final paper, due the day of the final exam, will be a research proposal for a project investigating hypotheses or suppositions of your choice using quantitative research methods. The final project/paper will count for 40% of your grade. Handouts with clear guidelines will be discussed in class on expectations for the project and how they will be graded. NO LATE PROJECTS WILL BE ACCEPTED.

Readings: Four books are required for the course. Instead of one large text, we will use two books that cover the same material generally and specifically for a particular technique. *Building Experiments: testing social theory* by David Willer and Henry A. Walker provides not only a focus on experimental research, but the background necessary to understand the logic of scientific research necessary for a variety of methods. The technique for more empirical (and less theoretical) research is the survey

and *Mail and Internet Surveys: The Tailored Design Method* by Don A. Dillman is THE book for all questions on survey research as well as the logic of drawing conclusions from data collected through answers to questions. This book covers all of the most important quantitative data collection techniques as well as ethical and current issues involving data collection. A book by Peter M. Nardi focuses on data interpretation: *Interpreting Data: A Guide to Understanding Research*. The fourth book is a pamphlet published by the American Sociological Association, *ASA Style Guide, Edition 3*, to help authors avoid the most common style and format problems when submitting manuscripts for publication. All of these books are available for purchase at the UM bookstore. (The formatting basics of the *ASA Style Guide* are also available yearly in each of its journals. It may be downloaded in its entirety from the ASA website—free of charge only IF you are a member.)

Additional readings are also required and will be available on *Blackboard*. Books will also be put on reserve when/if available.

There are two optional books suggested for the course: *Approaches to Social Research, Fifth Edition* (recommended if you would like to have a reference for much of the material that we discuss) by Singleton and Straits. This book is available in the bookstore and also may be purchased online from a variety of sources. The second optional book is: *SPSS Basics* (recommended if you have no experience with SPSS AND if you need more information to familiarize yourself with the software) by Zealure C. Holcomb. This book is not available in the bookstore but may be purchased online from a variety of sources.

Students also **must** register for the course supplement, *Blackboard*. Supplemental readings and handouts will be posted on *Blackboard*. In order to be prepared for class, you will need to check *Blackboard* regularly—at the very least, well before each class meeting, for announcements, readings, and extra information. Direct your browser to <https://courseware.umt.edu/> or click on “Blackboard Login” from the Um homepage. To register and use, click on “Login”. Follow the directions for enrolling in a course. In the future, the syllabus, schedule, data, handouts, assignments, supplemental readings, grades, and other information will be posted on the site. I recommend that you bookmark this site and visit it regularly. (See the *Blackboard* website and the attached instruction sheet for more information.)

A few words about plagiarism and academic dishonesty: “Plagiarism is the representing of another’s work as one’s own. It is a particularly intolerable offense in the academic community and is strictly forbidden. Students who plagiarize may fail the course and may be remanded to Academic Court for possible suspension or expulsion.” (Taken from *The University of Montana Catalog 2008-2009*, p. 23-4.) It includes:

- Copying from another’s examination or final paper or allowing another to copy from one’s own paper
- Unpermitted collaboration
- Unpermitted sharing of lab assignments and data—your exercises should be your own—output should not be photocopied.
- Giving or receiving unpermitted aid on a paper.

Make sure that your work is your own. Don’t get confused by what is acceptable and what is not. In this class, discussion of ideas is permitted, and even encouraged among classmates. Writing collaboration, however, is not permitted and students should be careful not to work directly from a classmate’s notes, not to work from the same outline, and not to read each other’s papers before they are graded. Neither using another student’s paper as a template for your own nor copying from any written documents (without giving proper credit) are acceptable. Be careful. If this is unclear, please ask.

Preliminary Course Schedule: Each of the following sections is arranged according to specific topics to be covered in the course. Topics and required readings for each section

are listed below each heading. Our progress through the list may change as we spend more or less time on any particular topic. It is your responsibility to keep up with the readings as we move through the course.

Week 1

Section 1: Introduction and Orientation

Behavioral Research

Singleton, chpts. 1 and 2, "Introduction" and "The Nature of Science" on *Blackboard*.

Various research methods

Positivism, interpretive orientation, critical theory, feminism/postmodernism

Week 2

Introduction to the lab and *SPSS*

Section 2: Foundations of Research

Research Uses and Strategies

Booth, Colomb, and Williams, 2003, *The Craft of Research, Third Edition*, chpts. 3-4 on *Blackboard*.

Theories and Hypotheses

Exercise #1A—from questions to problems (concepts and definitions) due

Week 3

Ethical Issues and cultural sensitivities

Singleton, chpt. 3, "Research Ethics" on *Blackboard*.

Willer and Walker, chpt. 5

ASA Code of Ethics: <http://www.asanet.org/page.wv?section=Ethics&name=Ethics>

Library Sources (Mansfield Library) Samantha Hines, Buckhouse Room

Week 4

Section 3: Research Planning and Preparation

Planning research

Booth, Colomb, and Williams, 2003, *The Craft of Research*, chpts. 5-6 on *Blackboard*.

Singleton, chpt. 4, "Elements of Research Design" on *Blackboard*.

Exercise #1B—literature review exercise due

Measurement: what do data look like?

Singleton, chpt. 5, "Measurement" on *Blackboard*.

Dillman, chpt. 1

Week 5

Research Design

Webster and Sell, chpts. 4-5 on *Blackboard*.

Willer and Walker, chpts. 1-2

(we will try to begin experimental research this week and get ahead of the schedule)

Exercise #2—IRB assignment due

Week 6

Section 4: Experimental Research

Willer and Walker, chpts. 3-4

Week 7

Running Experiments

Willer and Walker, chpt. 6

Section 5: Evaluation Research

Rossi, Lipsey, and Freeman, chpts. 1-4 on *Blackboard*.

Week 8

Singleton, chpt. 15, "Data Processing and Elementary Data Analysis" on *Blackboard*.

Webster and Sell, chpt. 13 on *Blackboard*.

Section 6: Survey Research

Questionnaire Construction

Dillman, chpts. 2, 4, and 5

Week 9

Mini-Experiment project due

Questionnaires; Types of Surveys

Dillman, chpts. 6, 7, 8 and 9

Entering Data and Sampling

Intro to SPSS (handout)

Dillman, chpt. 3

Singleton, chpt. 6, "Sampling" on *Blackboard*.

Week 10

Additional Survey Material and catch up

Dillman, chpts. 10,11,12, and 13

Mini-survey project due

Week 11

Section 7: Using Available Data

Singleton, chpt. 12, "Research Using Available Data" on *Blackboard*.

Data from other sources: creating your own data set

Non-reactive Research: Content Analysis

Historical Analysis

Comparative Analysis

Week 12

Section 8: Data Analysis and SPSS

Singleton, chpt. 15, "Data Processing and Elementary Data Analysis" on *Blackboard*.

George and Mallery, chpts. 3-5 on *Blackboard*.

Stern (optional)

Week 13

Section 9: Data Analysis and Interpretation

Nardi, *Interpreting*, chpts. 1-3

NO CLASS NOVEMBER 26—THANKSGIVING HOLIDAY

Week 14

No office hours on Monday.

More data analysis

Nardi, *Interpreting*, chpts. 4-5

Exercise #3—Interpreting Data exercise due

Research Proposals: getting funding for our projects

<http://www.umt.edu/Research/funding/umsmallgrantprog.htm>

Parts of the Research Proposal

Mini-secondary data project due

Week 15

Section 10: Writing a Research Proposal

Singleton, chpt. 17, "Writing Research Reports" on *Blackboard*.

Objectives, significance, methodology, expertise, budget, and cover sheet

Ethics review

Final Project writing requirements and hints
ASA Style Guide
Course Assessment
Exercise #4—Interpreting Data exercise due

Final Paper Due—Thursday, December 15 (3:10), the scheduled time of our final exam

**Sociology 562
BLACKBOARD**

During Fall Semester 2009 you are enrolled in a University of Montana course that uses an online Blackboard supplement. These supplements are really handy for communicating with classes. Your instructor will post frequent announcements on your course site. These announcements may make changes in assignments, give you additional information for assignments, and answer frequently asked questions from other students. Also, all class handouts will be posted so that you can get immediate access to them and won't need to wait until the next class session in order to find out what you missed. Because this class requires that you DO NOT fall behind in the material and there are weekly assignments, you should check the Blackboard site several times a week. You also may check your grades as they become available.

This handout contains important steps you should take to access your online supplement and your official university email address. Taking these steps will help you to enjoy a successful educational experience using Blackboard, The University of Montana's Internet learning environment.

Accessing Blackboard and Your Official UM Student Email Address

On the first day of your class you may log on to the UOnline Blackboard Web site to access Blackboard. First, you must locate your Blackboard username.

To find your official university username for *Blackboard* and *Email*:

1. Log on to Cyberbear and click on *Personal Information*.
2. Select "NetID (formerly SCAUID)". Your NetID is in the form of first initial, last initial followed by 6 digits (i.e. fl123456). Record your NetID – you will use it to log on to Blackboard and your email account.
3. Log off Cyberbear.

To find your Blackboard and Email password:

- If you are a new student, the default password is the last six digits of your University ID (the number on your Griz Card.) This should be entered into the password area on Blackboard and your GrizMail account.
- If you are a returning student, your Blackboard password will be the same as your GrizMail password from last semester.
- You may change your password at the [password change page](http://grizmail.umt.edu/) (<http://grizmail.umt.edu/>). If you are unable to log on to the password change page, or if you cannot remember the password associated with your NetID, please call the ITO Operations Center, 406.243.2606. Be prepared to provide your Social Security Number and University ID number to allow ITO Operations staff to verify your identity and to reset your password.

To Log on to Blackboard:

Browse to <http://umonline.umt.edu>, then click **Login**.

Enter your SCAUID and password here. Your SCAUID is your Blackboard username.

Your UOnline instructor will use your **official UM student email address**, assigned by The University of Montana, to communicate with you. Follow these steps to find and access your Official UM Student email address.

To log on to your Official UM Email Account

Browse to <http://grizmail.umt.edu/>. Your username and password are the same as your Blackboard username (see #1 above - *Accessing Your Online Supplement*). Student e-mail passwords are now the last six digits of the student ID number (Griz Card number).

What kind of technical assistance is available for students?

UOnline login accounts, email accounts, and computer technical assistance:

IT Central Help Desk, 8am-5pm, SS 120: 406-243-4357, itcentral@umontana.edu

Blackboard technical support: Monday-Friday, 8 a.m. - 5 p.m.

Call: 406.243.4999 or 866.225.1641 (toll-free); courseware-support@umontana.edu; Continuing Education Building, Second Floor