University of Manitoba
Department of Sociology

077.448 S01
RESEARCH METHODS II
2004- 2005

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Classroom: 335 Isbister
Credit Hours: 3

Overview

This is a course in quantitative research methods. Obtaining both an understanding of various quantitative techniques and the ability to apply these techniques to actual data is challenging. Mastery of the material requires commitment, effort, and practice. The course assumes only that students have taken a course similar to 77.229. We begin with a review of some of the fundamentals covered in undergraduate methods, just to ensure we all have a common base to work from. Then we systematically build on this base, working our way toward an understanding and application of multivariate regression and related techniques.

Course Organization

Typically, our weekly work in this course will be organized as follows. Students will be provided with a reading or readings on a particular topic. Usually this will be a chapter from a book or an article. Students will also be assigned calculation and interpretation problems associated with the *previous week's* readings. It will be your responsibility to *study* (not just read) the assigned readings for the week and complete the calculation and interpretation problems. This study and practice is essential to your mastery of the material, so please develop your workplan accordingly.

Our time during the class period will be spent as follows. First, we shall review the readings for the week. This review shall occur through seminar discussion, not a lecture. Therefore, it is essential that you come to class prepared to discuss the reading material, identify areas of misunderstanding, help one another clarify problematic points, etc. *Each week a different student will be responsible for leading our discussion.* Our goal in this component of the class is to ensure you have been provided the support you need to be able to apply the ideas and techniques covered to the upcoming week's calculation and interpretation problems. In the second part of our class we shall review and grade your answers to the week's applied statistical analysis problems.

Topic Coverage

The order and topics to be covered in the course include the following. The length of time devoted to each topic will vary, depending on how our learning process proceeds.

- Statistics and the Research Process
- Univariate Distributions and Measures
- Statistical Inference and Analysis of Variance
- Analyzing Categoric Relationships
- Regression and Correlation

- Multivariate Contingency Analysis
- Multiple Regression Analysis
- Causal Modelling Topics, Techniques, and Assumptions

Course Requirements

Your grade in this course will be based on your mastery of the contents of the readings, class discussions, and statistical application exercises. Although you are personally responsible for mastering the course contents, I firmly believe that learning is a *social enterprise*. Therefore, I strongly encourage students to help one another both inside and outside of class. This commitment to the *process* of team learning and the *product* of individual achievement is reflected in the following components of students' final grade.

- *Class Preparation and Participation -- 10 percent:* For this class to be successful it is essential that students both prepare for and participate in class. Therefore, 10 percent of your final grade will come from self-assessments and my judgement of how reliably and thoroughly you have prepared for and participated in our classes.

- *Weekly Calculation & Interpretation Problems – 10 percent:* Most weeks you will be assigned calculation and interpretation problems based on the previous week's readings. Each week we shall review and grade these questions. Your performance on these questions will comprise 20 percent of your final grade.

- *Computer Application Problems – 30 percent:* Throughout the course, I will provide you with statistical application problems that require you to utilize SPSS to analyze a data set. These problems will address the same techniques covered in the readings and the weekly calculations. You will create a portfolio containing your answers to these problems and submit it during the final class period, April 6, 2005. Late submissions will not be accepted.

- *Unit Tests – 50 percent:* This course will use unit tests to assess your individual mastery of the course contents. The unit tests will be held during the final class periods of *February 9th (20 percent)* and *April 6th (30 percent*). The unit tests will be "open-book" format, and will contain statistical calculation and interpretation problems similar to those you have worked on during the course. The unit tests will also contain a computer analysis component.

Some Final Notes

1) Only documented reasons are acceptable for not meeting course requirements, which includes class attendance (see General Calendar).

2) Although I encourage students to help one another both inside and outside of class, unit test time you are responsible for having mastered the course contents. Therefore, please commit yourself early to serious, sustained study of the course material.

3) Class will not be held on the following dates: February 16 & March 9.

4) Voluntary withdrawal deadline date: March 18, 2005.

5) As a cautionary note, students should know that the University of Manitoba strictly enforces its policy with respect to academic dishonesty. Students should acquaint themselves with the University's policy on "plagiarism and cheating" and "examination personation" found in the University General Calendar.