

PA 8120

Analysis and Decision Making

Christopher B. Goodman, Ph.D.

cbgoodman@unomaha.edu

402-554-5905

Fall 2015, Online.

Office Hours: By appointment.

COURSE DESCRIPTION

Decision-making supported by quantitative analysis is becoming increasingly important in the public and nonprofit sectors. As a result, managers are expected to be fluent in quantitative analytical skills. This course is a graduate level, introductory statistics and research methodology course. It will focus on applied quantitative analysis for public/nonprofit management and policy. The goal of the course is to train you to apply the concepts presented and use them to inform real world decision-making in the public and nonprofit sectors.

COURSE OBJECTIVES

Upon successful completion of this course, students should be able to:

1. Identify and define key theories and concepts of research design, descriptive and inferential statistics, multiple regression.
2. Design and execute an analytical research project.
3. Demonstrate proficiency regarding data collection, analysis, and evaluation.
4. Critically evaluate research designs and methods presented in applied and academic sources.
5. Correctly select and apply the appropriate analytical tool for the problem and data at hand.
6. Understand and evaluate the ethical issues surrounding data collection, analysis, and evaluation.

Student progress on these learning objectives will be measured through a combination of examinations, homework assignments, and class discussion.

REQUIREMENTS

HOMEWORK – 50%

Homework is due weekly and corresponds to the week's topic. More information will be posted to Blackboard. Each homework is graded on a pass/fail basis.

MIDTERM EXAMINATIONS – 30%

There will be two midterm examinations. One on XXX and another on XXX. The examinations will be administered through Blackboard. Each examination will cover only the material since the previous exam to the extent possible. The material in this course builds upon itself so some knowledge from previous sections is required. The exam will consist of problems requiring calculation and interpretation as well as true/false, multiple-choice, and fill-in questions.

FINAL EXAMINATION – 20%

You will sit for a non-cumulative final exam. Due to the nature of this topic, knowledge from prior to the midterm will be essential to success on the final. The exam will consist of problems requiring calculation and interpretation as well as true/false, multiple-choice, and fill-in questions.

TEXTBOOKS

Healey, Joseph F. 2016. *The Essentials of Statistics: A Tool of Social Research*. 4e. Centage Learning. ISBN: 978-1305093836

Chambliss, Daniel F. and Russell K. Schutt. 2016. *Making Sense of the Social World: Methods of Investigation*. 5e. Sage. ISBN: 978-1483380612

COURSE METHODOLOGY & POLICIES

This is an online course. As such, much more responsibility is on you, the student, in the learning process. I will post lectures weekly, but most of the learning will be self-directed through the readings and homework. It is important that you keep up with the readings. This course building on itself so missing a week will put you significantly behind.

I will be teaching this course as an introductory graduate course in statistics and research methodology that combines theoretical and conceptual topics with practical application. It is my assumption that students have limited undergraduate or graduate exposure to the topics covered in this course. As such, there is a large amount of material to cover in this course, and we will be moving quickly. Do not fall behind in the reading. It will be difficult to catch up.

COMMUNICATIONS

Course announcements will be made via email so it is imperative that you check your e-mail daily. “I didn’t get the email” is never a valid excuse. The most effect method of communicating with me is using email; however, you are also encouraged to schedule office hours (if local) or a phone call (if not local). There will be a weekly Google Hangout (more often if necessary) that will serve as office hours. The link for the Hangout can be found on Blackboard.

CALCULATORS

It is **required** that you have a calculator with square root functionality for this class. We will likely not use a calculator in every subject; however, it is difficult to predict when you might need to use it. As such, please plan on having access to a calculator.

SOFTWARE

This course will use PSPP, an open-source version of SPSS that is used in the Healy text. You will be required to download and install the program from this [link](#). I will post more about the installation and usage of this program on Blackboard throughout the semester.

MAKEUP WORK

Late assignments **WILL NOT** be accepted without a valid UNO excuse. If you have a schedule conflict on any day an assignment is due, please contact me beforehand to make arrangements for turning in your assignment early.

STUDENTS WITH DISABILITIES

If you have or believe you have a disability that may impede your learning, please contact the Disability Services Office. I will make every effort to accommodate you in accordance with UNO policy, procedures, and recommendations. Additional information can be found at <http://www.unomaha.edu/student-life/inclusion/disability-services/students/where-to-begin.php>.

ACADEMIC HONESTY

All students at the UNO are expected to conduct their academic affairs in an honest and responsible manner. Any student found guilty of dishonesty in academic work shall be subject to disciplinary actions. Acts of academic dishonesty include, but are not limited to:

- plagiarism, i.e., the intentional appropriation of the work, be it ideas or phrasing of words, of another without crediting the source;
- cheating, i.e, unauthorized collaboration or use of external information during examinations; assisting fellow students in committing an act of cheating;
- falsely obtaining, distributing, using or receiving test materials or academic research materials; submitting examinations, themes, reports, drawings, laboratory notes, research papers or other work as one's own when such work has been prepared by another person or copied from another person (by placing his/her own name on a paper, the student is certifying that it is his/her own work); or
- improperly altering and/or inducing another to improperly alter any academic record.

Additionally, graduate students are more likely to assume roles as active scholars. With these roles come added responsibilities for academic honesty. For such individuals academic honesty requires an active pursuit of truth not just an avoidance of falsehood. This pursuit includes but is not limited to:

- providing a full and complete representation of any scholarly find, be it experimental data or information retrieved from archives;
- taking care that the resources of the University (e.g., library materials, computer, or laboratory equipment) are used for their intended academic purposes and they are used in a manner that minimizes the likelihood of damage or unnecessary wear;

- assuring that one's co-workers are given due credit for their contributions to any scholarly endeavor; respecting a diversity of opinion and defending one's colleagues as well as one's own academic freedom; respecting the rights of other students who may come under the tutelage of the graduate student and being fair
- and impartial in grading and other forms of evaluation; and seeking permission from an instructor when submitting to that instructor work which the student has submitted for a course taken in the past or intends to submit for another course currently being taken.

In cases of alleged academic dishonesty, the instructor shall attempt to discuss the matter with the student and explain the sanction(s) which he/she plans to impose. In the event that the student challenges the allegation of academic dishonesty, or is not satisfied with the sanctions(s) imposed by the instructor, the student may file an appeal according to the approved appeal policies of the University of Nebraska Graduate College.

Course Outline

Week of	Topic	Reading
August 24	Introduction to Social Research	C&S, Ch 1 & 2
August 31	Measurement & Validity	C&S, Ch 3 & 4; H, pg. 10-14
September 7	Sampling	C&S, Ch 5, H, pg. 141-150
September 14	Research Designs	C&S, Ch 6, 7, 12
September 21	Qualitative Research	C&S, Ch 9, 10, 11
September 28	<i>Midterm 1</i>	
October 5	Introduction to Quantitative Research	H, Ch 1
October 12	Descriptive Statistics	H, Ch 2, 3, 4
October 19	The Normal Curve	H, Ch 5
October 26	<i>Midterm 2</i>	
November 2	Introduction to Inferential Statistics	H, Ch 6
November 9	Hypothesis Testing I	H, Ch 7
November 16	Hypothesis Testing II	H, Ch 8
November 23	Hypothesis Testing III	H, Ch 10
November 30	Bivariate Measures of Association	H, Ch 12
December 7	Multivariate Measures of Association	H, Ch 13
December 14	<i>Final Examination</i>	

C&S – Chambliss & Schutt

H – Healey