Soc 210: Introduction to Statistical Methods University of Nevada, Reno Fall 2008

Class times: MWF 9-9:50 am

Location: MF @ AB 108, W @ DataWorks Lab (see schedule for exceptions)

Instructor: Irem Uz

Office: Grant Sawyer Center for Justice Studies, Room 114B

Phone: 784-6272

Email: WebCampus email or irem@unr.edu (email is the best way to reach me!)

Office hours: Monday 11 am - 1 pm or by appointment

Required material:

1. Ritchey, F. J. (2007). *The statistical imagination* (2nd edition). NY: McGraw-Hill.

2. A basic calculator with square root function (bring to class every day)

Recommended material:

Pallant, J. (2007). SPSS survival manual (3rd edition). NY: McGraw-Hill. Although I will not follow this book, it is a good simple book if you plan to study SPSS independently or if you want a handy quick reference.

The purchase of SPSS itself is **not** recommended because there is SPSS in DataWorks lab and you can also access DataWorks applications through Internet.

Websites:

This course uses WebCampus. To get access to WebCampus, go to http://webct.unr.edu. You will need your NetID and password to log on. You should check WebCampus regularly as grades, announcements, all exam reviews, etc. will be available online. There is also a discussion group on this site where you can ask your questions and answer a posted question while remaining anonymous to other students. Before you email me your questions about in-class material, "SPSS how to"s, or group project, please seek an answer first by posting them under the appropriate discussion. Also be sure to check the previous entries to make sure that same question has not been asked before.

The textbook has two websites, http://www.mhhe.com/ritchey2 and http://www.mhhe.com/ritchey3. The "Ritchey2" site has chapter extensions, web links, and additional computer exercises. The "Ritchey3" site provides chapter summaries, PowerPoint slides, and tools for self-assessment.

Course description:

Statistics refers to techniques for collecting, analyzing, and drawing conclusions from data. This course is designed to help you to understand how, when, and why statistics are used, and why it is important to have a working knowledge of statistics. Class time includes lectures, in-class exercises, and lab instruction. The goal is to help you become educated consumers and producers of statistics. The lab sessions are not to overwhelm you: SPSS will be used as a computational aid to enhance your understanding of the application of concepts and the

interpretation of the results. The mathematical calculations you will need to use in this course are basic algebra $(+, -, x, \div, exponentiation, and square roots)$. The reward for learning statistics comes once you start using it. It is also the one type of knowledge that you can transfer across academic disciplines as well as jobs!

Course requirements:

Exams. There will be three exams, each worth of 15% of your final grade. Each exam will only include material covered since the previous exam. However, the exams are cumulative, in the sense that you will need to know and build on the concepts discussed earlier in the semester. The questions will be similar to the end-of-chapter questions and exercises. The exams will be open book! Unless you have a documented emergency, no make-ups will be given! When make-ups are given, they will be closed-book and more difficult than the regular exams to neutralize any advantage a student gains from extra study time.

Homework. Homework will account for 20% of your final grade. There will be two types of homework: reading assignments, and end-of-chapter questions and exercises. You are asked to read the chapter(s) before coming to class and submit a two-three sentence summary of what the chapter is about along with a research question that can be answered by employing the procedures explained in the chapter. Please submit your summaries and research question as a text only message via WebCampus email each Sunday at noon (the Sunday before the lecture, not after). Assigned end-of chapter questions and exercises are due at the beginning of class on Fridays. Since you will be assigned only the problems that are answered at the end of the book, you need to show all your work on your assignments. Simply putting the numeric answer will result in a grade of 0, whereas showing your work will earn you full points. Put in other words, I expect all of your answers to the exercises to be correct (since you can check your answers from end of the book). Therefore, your submission will be graded as absence (0) or presence (1). Note again that not showing your work will count as absence. Late submissions will not be accepted in either type of assignment.

Quizzes. There will be pop quizzes which will account for 15% of your final grade. They will directly come from end-of-chapter questions and exercises that were not assigned as homework.

SPSS group project. In groups of four, you will be asked to do a research project. It will account for 20% of your final grade. The dataset and the codebook are posted on WebCampus. The dataset is part of World Values Survey which is slightly modified for the purposes of this course. You are asked to select/create at least three variables: one nominal level variable and two interval/ratio level variables. You will generate research questions and I will help you develop testable hypotheses. The project is composed of two parts: Part 1 is descriptive, and Part 2 is inferential. In part 1, you will find mean, median, mode, and spread of your variables, and draw graphs. In Part 2, you will calculate confidence intervals and employ either ANOVA or linear regression to test your hypotheses (you will learn in class what all those mean). At the end of the semester, you will present your results to class and submit a written report. You are strongly encouraged to submit drafts of your project. If you do not submit drafts, I cannot help you along the way. Late submissions will not be accepted. Everyone must be present for the oral presentation. Unless there is an extreme emergency that must be documented, the negligent or absent parties will receive a zero (0). Each team member will be evaluated by other members of his/her group both in terms of effort and contribution.

Grading:

You must complete <u>all</u> course requirements in order to pass this course. The course as a whole will be graded on the following scale:

| Letter Grade | Percentile | Letter Grade | Percentile |
|--------------|------------|--------------|------------|
| A | 93-100 | C | 73-76 |
| A- | 90-92 | C- | 70-72 |
| B+ | 87-89 | D+ | 67-69 |
| В | 83-86 | D | 63-66 |
| B- | 80-82 | D- | 60-62 |
| C+ | 77-79 | F | <60 |

Attendance:

Although attendance will not "affect" your grade in terms of points, coming to class has an indirect and strong effect on how well most students do in the course.

Academic honesty and integrity:

Academic dishonesty (e.g., cheating on exams, plagiarism) is a serious offense. All work that you submit in this class must be your own. Each student is responsible for being familiar with UNR's policies on academic dishonesty, available at http://www.unr.edu/stsv/acdispol.html Any student engaging in academic dishonesty in this course will receive an F on the exam/assignment.

Assistance:

If you have a disability that requires special accommodations, please let me know early in the semester. Also please seek assistance when you are having difficulty understanding the course material. I am here to help you understand the material, and I encourage you to contact me when you have concerns about the course.

Tentative course schedule:

| Week 1 | |
|---|-------------------------------|
| Introduction & why would you want to learn statistics? | Monday, August 25, 2008 |
| **Meet at AB 108_Chapter 1: The statistical imagination | Wednesday, August 27, 2008 |
| Chapter 2: Organizing data | , , , |
| Chapter 2 continues | Friday, August 29, 2008 |
| **Names of the members for the group project are due on Friday | |
| Week 2 | |
| Labor day. Campus closed. | Monday, September 01, 2008 |
| 1st lab meeting at DataWorks lab: | Wednesday, September 03, 2008 |
| Introduction to SPSS & Frequencies | • • |
| Chapter 3: Charts and graphs | Friday, September 05, 2008 |
| **The variable names and the research question(s) for the group | project are due on Friday** |
| Week 3 | |
| Chapter 4: Measuring Averages | Monday, September 08, 2008 |
| Lab: Mean, median, mode & graphs | Wednesday, September 10, 2008 |
| Chapter 4 continues | Friday, September 12, 2008 |
| Week 4 | |
| Chapter 5: Measuring dispersion and spread | Monday, September 15, 2008 |
| Lab: Std. deviation, variance and interquartile range | Wednesday, September 17, 2008 |
| **Draft of the first part of the project is due at 9 am ** | Thursday, September 18, 2008 |
| Chapter 5 continues | Friday, September 19, 2008 |
| Week 5 | |
| From Chapter 6: Probability theory | Monday, September 22, 2008 |
| **Meet at AB 108: Review of Chapters 1 through 6 | Wednesday, September 24, 2008 |
| ************************************** | 7.1. 6 |
| Location: AB 108 | Friday, September 26, 2008 |
| Week 6 | |
| From Chapter 6: The normal distribution | Monday, September 29, 2008 |
| Lab: Standardizing scores & the normal curve | Wednesday, October 01, 2008 |
| Chapter 6 continues | Friday, October 03, 2008 |
| Week 7 | 111day, October 03, 2000 |
| Chapter 7: Sampling distributions | Monday, October 06, 2008 |
| Chapter 8: Confidence intervals | Wonday, October 00, 2000 |
| Lab: Sampling, & confidence intervals | Wednesday, October 08, 2008 |
| Chapter 8 continues | Friday, October 10, 2008 |
| Week 8 | |
| Chapter 9: Hypothesis testing I | Monday, October 13, 2008 |
| Chapter 10: Hypothesis testing II | 1.1011.001, 0010001 10, 2000 |
| Lab: One-sample t-test | Wednesday, October 15, 2008 |
| Chapter 10 continues | Friday, October 17, 2008 |
| | 111001, 0010001 17, 2000 |

| Week 9 | | |
|---|------------------------------|--|
| Chapter 11: Bivariate relationships | Monday, October 20, 2008 | |
| Lab: Independent-samples t-test and paired-samples t-test | Wednesday, October 22, 2008 | |
| Chapter 11 continues | Friday, October 24, 2008 | |
| Week 10 | | |
| Review of Chapters 6 through 11 | Monday, October 27, 2008 | |
| ************************************** | Wadnasday Ostabar 20, 2008 | |
| Location: AB 108 | Wednesday, October 29, 2008 | |
| Nevada Day. Campus closed. | Friday, October 31, 2008 | |
| Week 11 | | |
| Chapter 12: Analysis of Variance | Monday, November 03, 2008 | |
| Lab: ANOVA | Wednesday, November 05, 2008 | |
| Chapter 12 continues | Friday, November 07, 2008 | |
| Week 12 | | |
| Chapter 14: Bivariate correlation and regression I | Monday, November 10, 2008 | |
| Lab: Correlation | Wednesday, November 12, 2008 | |
| Chapter 14 continues | Friday, November 14, 2008 | |
| Week 13 | | |
| Chapter 15 : Bivariate correlation and regression II | Monday, November 17, 2008 | |
| Lab: Linear regression | Wednesday, November 19, 2008 | |
| **Draft of the second part of the project is due at 9 am ** | Thursday, November 20, 2008 | |
| Chapter 15 continues | Friday, November 21, 2008 | |
| Week 14 | | |
| Chapter 13: Nominal variables | Monday, November 24, 2008 | |
| Lab: Chi-square | Wednesday, November 26, 2008 | |
| Family day. Campus closed. | Friday, November 28, 2008 | |
| Week 15 | | |
| Group project presentations | Monday, December 01, 2008 | |
| **All group projects are due in class on Monday** | | |
| Group project presentations | Wednesday, December 03, 2008 | |
| Group project presentations | Friday, December 05, 2008 | |
| Week 16 | | |
| Review of Chapters 12 through 15 | Monday, December 08, 2008 | |
| Finals Preparation Day. No Class. | Wednesday, December 10, 2008 | |
| ************************************** | | |
| Location: AB 108 @ 9:45 am | Thursday, December 11, 2008 | |

Department of Sociology University of Nevada, Reno January 2007

Departmental Policy on Academic Dishonesty

Academic dishonesty (e.g., cheating on exams, plagiarism) is a serious offense. All work that you submit in this class must be your own original work, and must have been generated by you specifically for the assignments. Academic dishonesty can take on many forms including, but not limited to, the use of prohibited materials during examinations, having one's own assignments completed by a third party, submit the identical paper in two different courses, and plagiarism—each of which is a serious offense.

Each student is responsible for being familiar with UNR's policies on academic dishonesty, available at http://www.unr.edu/stsv/acdispol.html. It is the policy of the Department of Sociology that any student who engages in any act of academic dishonesty will receive automatically a course grade of "F." Further, in accordance with the UNR's Undergraduate Academic Dishonesty Procedures, a record will created with the Office of Student Judicial Affairs. Repeated offenses may lead to the expulsion from the university.

What is plagiarism? Whereas most acts of academic dishonesty are obvious, students are sometimes unclear what "plagiarism" entails. Plagiarism means that you incorporate another author's work into your own, but create the impression that you yourself are the original author. For instance, it is plagiarism when you cut and paste another author's text into your own paper, but do not clearly mark it as a quote and do not credit the original source. Another example of plagiarism is when you use another author's text, but change the syntax and vocabulary only slightly. Yet another instance of plagiarism involves using another person's ideas and presenting them as your own. The web offers a number of great resources on the subject of plagiarism that help you decide when you need to credit another author and when something can be assumed to be common knowledge (in which case you do not need to credit a source). See, e.g., http://libweb.uoregon.edu/guides/plagiarism/students/.

How to avoid plagiarism? When writing a paper, focus on what and how you want to say something, not on the language another author used. The easiest way is to follow a "closed source" policy: That is, when you have read a paper, book or website that is relevant to a paper that you are writing, close it and put it aside before you write your own text. Once you are done, go over your paper again and make sure that have not inadvertently copied another person's language. Likewise, make sure that you do not pretend that another person's insights are your own.

Keep in mind that plagiarism is more easily detected than you might think. Many instructors and graders have access to the same resources as you (e.g., the internet) and routinely check up whether any text you have submitted appears elsewhere. If you are in doubt whether something constitutes plagiarism or not, ask your instructor, TA, or the UNR writing center, http://www.unr.edu/cla/wc/.