

Statistics for Social Science
SOC 308, Spring 2009, Section 1
4 credit hours

Professor:	Dr. Whaley	Class location:	Parkinson 107
Office:	Faner 3434 (SOC 3384)	Schedule:	TTH 1 - 2:40
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Overview

This course is required for undergraduate majors. The course will cover the logic, methods, interpretation, and application of statistics in sociology. Students will learn when, why, and how to use various univariate, bivariate, and multivariate statistics and techniques. We will discuss issues of causality, confidence in results, relationships, and more. Students will develop skills by calculating statistics by hand, by conducting analyses with real data using MicroCase software, and by thinking, writing, and discussing statistics and analyses. Students will be required to work in pairs or groups in the classroom and to work independently on homework and exams.

Required Material

1. Two books: Social Statistics: A text using MicroCase, 4th edition, **and** A MicroCase workbook for social statistics, 4th edition. Both by William Fox, Wadsworth.

DO NOT BUY A USED WORKBOOK. The workbook must be new and contain all its pages, a floppy disk, and cd-rom.

2. Access to a computer with Windows 95 (or higher), 8MB RAM, CD-ROM drive or 3.5" disk drive. If you will be using a Macintosh, you need to get emulation software or hardware installed immediately (or else plan to use a computer lab and the CD-ROM)

3. Calculator (preferably a scientific calculator, but at least one that can perform polynomials and square roots).

4. Stapler - all workbook pages must be stapled together when turned in (points will be taken off for repeat offenders)

Course and University Policies

1. Make-up examinations will be given only to students with excused absences and who notified me prior to the examination.

2. STUDENT CONDUCT CODE: Southern Illinois University at Carbondale is dedicated not only to learning, research, and the advancement of knowledge, but also to the

development of ethically sensitive and responsible persons. The university seeks to achieve these goals through sound educational programs and policies governing individual conduct that encourage independence and maturity. By accepting membership in this university, an individual joins a community characterized by free expression, free inquiry, honesty, respect for others, and participation in constructive change. All rights and responsibilities exercised within this academic environment shall be compatible with these principles. Acts of Academic Dishonesty is a breach of the student conduct code. Dishonest includes: 1. Plagiarism, representing the work of another as one's own work; 2. Preparing work for another that is to be used as that person's own work; 3. Cheating by any method or means; 4. Knowingly and willfully falsifying or manufacturing scientific or educational data and representing the same to be the result of scientific or scholarly experiment or research; 5. Knowingly furnishing false information to a university official relative to academic matters; 6. Soliciting, aiding, abetting, concealing, or attempting conduct in violation of this code. You should consult with me if you are uncertain about an issue of academic honesty prior to the submission of an assignment or test.

3. Classroom behavior: Please be on time, turn off cell phones (unless you are on call then put them on vibrate), and do not engage in distracting & disrespectful behavior such as chatting, sleeping, leaving early, newspaper reading, doing suduko/crossword puzzles, and other course work. The professor reserves the right to report and remove students who continually engage in these behaviors.

4. Reasonable accommodations will be available to students with disabilities. In order to take advantage of available accommodations, students must contact the SIU Disability Support Services (DSS) and then submit to me written documentation of the disability and necessary accommodations by the second week of the semester.

5. Class discussions should take place within a context of academic inquiry (you are here to learn) and in the spirit of understanding diverse perspectives and experiences. Students should not make negative comments about fellow classmates; demean, devalue or put down people for their differing experiences, backgrounds, and statements; nor show general signs of disrespect for the course, professor or other students. If any student feels attacked, harassed, or otherwise disrespected, for any reason, that student is encouraged to set up a confidential meeting with the professor.

6. Grades. It is the student's responsibility to track his/her performance in this course. All work will be evaluated in terms of accuracy, effort, sophistication, clarity, and completeness (as relevant).

Total points = 520

90% or more (468 or more) = A

80-89% (416 - 467) = B

70-79% (364 - 415) = C

60-69% (312 - 363) = D

59% or less (311 or less) = F

7. The professor reserves the right to assign additional work of any nature if it becomes apparent that students are not actively engaged in the material or need additional practice. Course grading will be adjusted accordingly. That said, there are no opportunities for "extra credit"; instead, take advantage of the numerous opportunities for actual credit (that is, complete all in-class activities, attend class, participate, do homework, work hard, and see me if you need help of any sort.)

8. Emergency Procedures:

Emergency Procedures. Southern Illinois University Carbondale is committed to providing a safe and health environment for study and work. Because some health and safety circumstances are beyond our control, we ask that you become familiar with the SIUC Emergency Response Plan and Building Emergency Response Team (BERT) program. Emergency response information is available on posters in buildings on campus, available on BERT's website at www.bert.siu.edu, Department of Safety's website www.dps.siu.edu (disaster drop down), and in Emergency Response Guideline pamphlet. Know how to respond to each type of emergency.

Instructors will provide guidance and direction to students in the classroom in the event of an emergency affecting your location. It is important that you follow these instructions and stay with your instructor during an evacuation or sheltering emergency. The Building Emergency Response Team will provide assistance to your instructor in evacuating the building or sheltering within the facility.

Student Responsibilities and Requirements

Summary:

Two in-class exams

Exam 1 covering weeks 1-5 on Thursday, February 12 (100 points, 20%)

Exam 2 covering weeks 6-12 on Thursday, April 9 (100 points, 20%)

One combination take-home and in-class final exam

Due May 5th at noon. (100 points, 20%)

Homework exercises: 10 workbook exercises

For maximum of 100 points total (10*10=100 points 20%)

Due on Tuesday or Thursday at start of class (see late policy and schedule)

In class work: Attend all classes and complete in-class assignments

There will be scheduled and unscheduled in-class exercises (usually some type of group work, but may be individual – at least 14 occasions on the syllabus already). Always bring your workbook and a calculator to class. (12 occasions will count toward 20% of your final grade, this allows you to miss a class for a legitimate reason without penalty). Group work may involve grading your classmate's workbook exercises.

Details:

1. Three exams in total: There will be two in-class examinations and one take-home/in-class examination. Question format will range from interpretation/problem solving/computational varieties to true/false, multiple choice and matching types. Exam 3 will involve computer work and a writing task. It will be necessary to “simply memorize” some of the material presented in class, the text, and the workbook and some exam questions will test this type of learning. However, my primary goal is for you to understand the course material and to be able to apply course concepts in various ways. As such, many exam questions will be designed to evaluate your understanding of material and your ability to apply course concepts and ideas rather than simply memorize information. You will be allowed to bring a note card with formulas and other specific information per instructions announced in class. All note cards will be checked on exam day and may be collected. Inappropriate note cards will be taken away prior to the exam and student will take exam without note card.

The examinations will cover specific chapters. However, to understand material in the latter part of the term, you will need to have a sufficient understanding of the material presented earlier in the term. Knowledge is cumulative and in this way, the exams are too.

2. Homework: Complete 10 workbook exercises. Only certain questions will be assigned in each exercise (see syllabus and listen in class for announcements). Due dates are included on the syllabus – though deadlines may be changed as necessary; stay tuned for in-class announcements or Blackboard emails. Because homework will vary in terms of the number of questions, individual questions may be worth different points. Ten points is the maximum score, all points will be summed and will count toward 20% of your final grade.

Sometimes exercises will be graded by another classmate during class and you will grade another classmate's exercise.

Exercises are due at the beginning of class – 5% of the grade will be removed if an exercise is handed in during class or at the end of class - then - an additional 5% will be removed for each day late. DO NOT ask me last minute questions about homework on the day the assignment is due – plan ahead and see me in office hours. NO exercise will be accepted after one week. If for some reason you cannot make it to class on the day the assignment is due, it is your responsibility to get the assignment to me prior to or at the start of the class on which they are due (I have a mailbox in Faner 3384).

3. In-class work: About once a week (more or less), there will be some type of in-class practice activity or extra task related to homework. You will turn in the end-product of the activity; it may be in the form of notes, writing, quizzes, or interpretation/problem solving/computational tasks (often questions in the workbook that are not assigned for homework). In-class work may be individual or may be group. Students may earn 1 to 10 points on each task depending on effort and quality. About 10 points will be assigned to each task, all points will be summed and will count toward 20% of your final grade. 12 out of the 14 (or 120 points) in-class opportunities will count toward your grade. Students present for all 14 opportunities will be rewarded with extra points depending on quality of work.

You must be present to complete in-class activities and to get credit (in class work cannot be made up – so consistent attendance is critical (if you are absent, you will receive a zero on the in-class work)).

4. Attend all classes and participate in class and group discussions and activities. Come to office hours to discuss any questions, interests, problems with the course material. I am here to help and advise you but I can only do that if you come and see me. Do course reading for day assigned. Check Blackboard email (at least weekly) for announcements, assignments, changes, etc. Track your performance in the course. If class must be canceled for any reason, I will try to alert you via Blackboard email.

Tentative Schedule (subject to change, changes will be announced in class)

<u>Week 1</u> T 1/13 TH 1/15	<u>Course Introduction/ Statistics and Variables</u> no reading Chapter 1
<u>Week 2</u> T 1/20 TH 1/22	<u>Frequency and Percentage Distributions</u> read Chapter 2 this week In class work with Exercise 1: 1, 2, 3, 5, Exercise 1 (7, 9, 10, 15, 18, 20 a-g, 24, 25) Due In class work with Exercise 2: 1-5, 6 and 7
<u>Week 3</u> T 1/27 TH 1/29	<u>Measures of central tendency</u> (e.g., averages) read Chapter 3 this week In class work with Exercise 3: 1, 2, 7 Exercise 2 (9, 10, 11a-d, 15-19, 31) Due
<u>Week 4</u> T 2/3 TH 2/5	<u>Measures of variation</u> read Chapter 4 this week Also read on-line article, The median isn't the message by S. J Gould. Http://www.cancerguide.org/median_not_msg.html In class work with Exercise 4: 1, 3, 9 (SD, variance, sum of squares) Exercise 3 (4, 8, 9a-b, 10, 12, 14) Due In class work with Exercise 4: 11, 12 (and other examples)
<u>Week 5</u> T 2/10 TH 2/12	Exercise 4 (4, 6, 13, 14, 16-22) Due Grade Exercise 4 in class and review for exam Exam 1
<u>Week 6</u> T 2/17 TH 2/19	Cross-tabulation read Chapter 5 this week In class work with Exercise 5 (maybe) In class work with Exercise 5
<u>Week 7</u> T 2/24	Continued In class work with Exercise 5

TH 2/26 Chi-square test of significance
read Chapter 6 for today
Exercise 5 due (2-4, 11, 12, 14) (grade part in class)
In class work with Exercise 6 (6, 7, and others)

Week 8

T 3/3 Continue with chi-square

TH 3/5 **Exercise 6 (1-3, 8, 12-15) due**
Peer grading in groups, discuss different answers

Break 3/9 to 3/13

Week 9 Measures of association for cross-tabulation
T 3/17 read Chapter 7 this week

TH 3/19

Week 10 Multivariate cross-tabulation
T 3/24 **Exercise 7 due (1, 2, 7, 8, 10, 11)**
read Chapter 11

TH 3/26

Week 11 Continued
T 3/31 In class work with Exercise 11
Announcement regarding revised instructions for 7, 8, and 10-12

TH 4/2 **Exercise 11 (2a-b, 3, 10, 11, 12 (for 10-12 need revised instructions)) due**

Week 12

T 4/7 Discuss exercise 11 and review for exam
TH 4/9 **Exam 2**

Week 13 Comparison of group means (and maybe ANOVA)
T 4/14 Chapter 8 this week, Parts of chapter 9 (to be announced)
TH 4/16 Continue, In class work

- Week 14
T 4/21 Correlation, bivariate regression, multiple regression
Parts of Exercises 8 and 9 due (questions to be announced)
Read Chapter 10 and parts of Chapter 12 (to be announced)
In class work
- TH 4/23 Continue with regression topics
Final exam assigned
- Week 15
4/28 Continued
In class work
Student evaluations of professor/course
- 4/30 **Parts of Exercises 10 and 12 due (discuss/grade in class, stay tuned)**
Review for exam

**Bring the completed take-home part of the exam to the final exam session.
Complete the exam in the classroom. Tuesday, May 5 at 12-1:50 in the regular
classroom**