DEPARTMENT OF SOCIOLOGY

SOC 324: APPLIED SOCIAL STATISTICS AND SPSS (3 credits)

Fall 2011
Tentative Syllabus

Course ID: 01678
Course prerequisites: 1). SOC 222 Quantitative Research Methods
2). MAT 360 Theory of Probabilities and Mathematical Statistics
Instructor: Mehrigiul Ablezova, MA
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Schedule: Tuesday 12:45 - 14:00 and Thursday 12:45 - 14:00
Office Hours: Tuesday and Thursday at 11:45 – 13:00 in room 234 (main building)

Introduction

This course covers the basic principles of statistics necessary to conduct social science research. These include basic descriptive and inferential statistics. Descriptive statistics are used to summarize data under study. They present quantitative descriptions in a manageable form. Inferential statistics are used to estimate generalizability of findings based on a sample observation to a larger population from which sample has been selected. The special emphasis of the course will be on the use of a statistical software package SPSS.

Program Goals

In this course, students will develop the skills needed to:
1. understand how social scientists collect and analyze data;
2. understand the logic and mathematical basis for different statistics;
3. conduct data analysis to address a research question;
4. use the SPSS as a tool for data management and hypothesis testing;
5. draw valid conclusions; and
6. coherently describe conclusions in written form.

Readings

Textbook I: *Fundamentals of Behavioral Statistics* by Richard P. Runyon, Audrey Haber, David J. Pittenger and Kay A. Coleman
Textbook II: *Fundamental Statistics for the Behavioral Sciences* by David C. Howell.
Additionally, students will receive handouts and other small reading assignments on occasion.
Students must complete all reading assignments prior to class. Statistics texts typically require to read a chapter more than once (before and after class) to fully understand the material.

Requirements

Class participation and effort (10% of final grade)
Attendance in a statistical course is highly important since an understanding of later section of the course is dependent on an understanding of earlier sections. Students will be held accountable for all class material on the exam and on the homework assignments. **Students must attend all classes on time.**
Since this is a lab class, latecomers create a major disturbance.
Grading guidelines for seminar and lecture participation:
'10' – Students attend each lecture and seminar with questions about the lectures and readings. In engaged dialogues, they raise these questions for other students to discuss, and listen to contrary opinions. They initiate and develop critical issues concerning the seminar activities
'8' – Students complete their readings, but do not always reflect on the questions and issues raised during

the lectures and seminars. Though they articulate their own views, they passively wait for others to initiate interesting issues.

'6' – Students attend, prepare and listen attentively, but rarely enter into discussions.

'4' – Students are inconsistent in their attendance and preparations. They do not respect others' contributions.

'2' – Students are consistently ill-prepared and have poor attendance. They are rude and disruptive.

Homework Assignments (45 % of final grade)

There will 9 math problems and computer tasks. Each assignment can contribute 5% to the final grade. **THESE ARE INDIVIDUAL ASSIGNMENTS, NOT TEAM GROUP ASSIGNMENTS!** Students should do homework assignments independently. **Any students who plagiarize or cheat from other students' work will get an "F" (0 points) grade for that assignment.** Problem assignments must be turned in at the beginning of the class session on the indicated dates. **NO LATE ASSIGNMENTS WILL BE ACCEPTED.**

Exams (3*15 = 45% of final grade)

There will be three in-class exams during the semester (see schedule below). Each exam will contribute 15% to students' total grade Exams will be on materials covered in lectures and in textbook. **Any students who cheat during the exam will get an "F" (0 points) grade for that exam.**

Missed exams can be re-scheduled under following conditions:

1. students inform the instructor before an exam unless of an illness;
2. students must have written documentation for the absence; and
3. the instructor determines when the make-up is taken and the format of the exam.

Grades will be assigned based on the following ranges:

Grade	Percentage Score Range
A	95-100
A-	90-94
B+	85-89
B	80-84
B-	75-79
C+	70-74
C	65-69
C-	60-64
D	55-59
D-	50-54
F	0 – 49

Grade "X" – an administrative drop – is initiated only by instructor, that is, it cannot be requested by a student.

"I" – Grade "I" may be given to a student if s/he justifies a) a serious sickness; b) serious family circumstances; c) when only a few of the assignments are not submitted in the end of the semester; d) when a prior consent is received from an instructor before the deadline.

Academic integrity

Academic integrity is the pursuit of scholarly activity free of fraud and deception and is an educational objective of the American University of Central Asia. It includes, but not limited to, cheating, plagiarism, fabrication of information and citations, facilitating acts of academic dishonesty by others, submitting work of another person or work previously used without informing the instructor, tampering with the academic work of another student, and lying to the instructor. Please refer to the University's Undergraduate Catalog 2008-2010 for additional information on Honor Code, which is also available on AUCA website. There is no tolerance policy toward academic dishonesty in this course.

Course Outline

Weeks	Tentative topic calendar	Readings	Homework
WK1 August 22-28	Review of the syllabus	Textbook I Chapter 1	
	Introduction to statistics Major forms of data display	Textbook I Chapter 2&3	
WK2 August 29 - September 4	Data manipulation in SPSS	Textbook I Chapter 6	
	Measures of central tendency	Textbook I Chapter 4	
WK3 September 5-11	Measures of central tendency cont.	Textbook I Chapter 4	
	Measures of dispersion	Textbook I Chapter 5	Homework 1
WK4 September 12-18	Measures of dispersion cont.		
	Revision of measures of central tendency and dispersion		Homework 2
WK5 September 19-25	**Exam 1**		
	Contingency tables		
WK6 September 26- October 2	Measures of association	Textbook I Chapter 7	
	Measures of association cont.		
WK7 October 3-9	Sampling designs The standard normal probability distribution	Textbook I Chapter 9	Homework 3
	Sampling distribution	Textbook I Chapter 10	
WK8 October 10-16	Introduction to regression	Textbook I Chapter 8	Homework 4
	Regression and prediction	Textbook II Chapter 10	
WK9 October 17-23	**Fall break**		
WK10 October 24-30	Regression and prediction cont.		
	Multiple regressions	Textbook II Chapter 11	
WK11 October 31 - November 6	Multiple regressions cont.		Homework 5
	Exam 2		
WK12 November 7-13	Hypothesis tests applied to means: one sample	Textbook II Chapter 12	
	Hypothesis tests applied to means: two related samples	Textbook II Chapter 13	
WK13 November 14-20	Hypothesis tests applied to means: two related samples cont.		Homework 6
	Hypothesis tests applied to means: two independent samples		
WK14 November 21-27	Hypothesis tests applied to means: two independent samples cont.	Textbook II Chapter 14	Homework 7
	Hypothesis tests applied to means: two independent samples cont		
WK15 November 28- December 4	Chi –square tests	Textbook II Chapter 19	Homework 8
	Chi –square tests cont.		
WK16 December 5-11	Course review		Homework 9
	Exam 3		