University of Calgary Department of Sociology Sociology 311 Introduction to Social Statistics I Winter, 2010

Instructor: Dr. Jenny Godley Class Hours: Office: Class Location: SS113 Office Hours:

Lab Hours: Telephone: E-mail:

403-220-7566 jgodley@ucalgary.ca*

Teaching Assts.: Office: Office Hours: Email: Raheela Manji SS917 W 9:00-10:00 <u>rmmanji@ucalgary.ca</u> M,W,F 14:00-14:50 SS922

M,W 12:30-13:30, or by appt. M 16:00-18:50 Lab Location: SS Tri-Lab

Ali Rezaei SS 1047 F 13:00-14:00 arezaei@ucalgary.ca

* Please use email for administrative concerns only. Substantive issues should be addressed in person, either in class, during office hours, or during an appointment time.

NOTE: this course outline is subject to revision. All changes will be announced in class. *Last revised 8 January, 2010*

Overview:

This is the first of two required statistics courses in Sociology at the University of Calgary. This course focuses on descriptive statistics, while the second course focuses on inferential statistics. Together, these courses will provide you with the basic tools necessary to conduct, interpret and critique quantitative social science research. In this course, you will learn how to calculate and interpret simple descriptive statistics. You will also learn how to use a statistical software package, SPSS, to produce descriptive statistics. This course assumes fluency in high school level algebra. Statistics is a language; like all languages, it is best learned through usage. You will be required to calculate and interpret descriptive statistics, both by hand and using SPSS, throughout this course.

Objectives:

- 1. To introduce you to the theory of statistical analysis.
- 2. To introduce you to the basic methods of descriptive statistical analysis, and develop your facility with these methods.
- 3. To teach you how to use SPSS for descriptive data analysis both skillfully and intelligently.
- 4. To illustrate and critique uses of descriptive social statistics.
- 5. To provide a solid foundation for a course on inferential statistics.

Text:

Frankfort-Nachmias, Chava, and Anna Leon-Guerrero. 2009. <u>Social Statistics for a Diverse</u> <u>Society.</u> 5th Edition. Pine Forge Press. Includes CD-ROM with SPSS Student Version 16.0

** Available for purchase at the U of C bookstore. NOTE: you *must* get the 5th edition, and you *must* get the edition packaged with the SPSS Student Version 16.0.

Requirements:

A. <u>Reading</u>:

Readings are assigned for each day of class. Please come to class every day having read the materials. Bring any questions or comments you have about the readings with you to share with your classmates. Please bring your texts to class, as we will refer to them often.

B. <u>In-Class Participation (Oral and Written):</u>

You are encouraged to participate as fully as possible in classroom activities. Each class period may include numerous activities such as discussions, debates, presentations, and various forms of writing. Please take classroom participation seriously; respect your peers' contributions, and provide feedback as constructively as possible.

C. <u>Exams</u>:

You will have two mid terms and one final examination. The midterms will each be worth 20% of your final grade, and the final will be worth 35% of your final grade. The mid-terms will be held in class, over two class periods. The final will take place during the final examination period, and will be scheduled by the Registrar. Exams are mandatory. If you fail to take any of the exams without documentation, you will automatically fail the course. During the exams, you will be required to show some of your mathematical calculations in full; it is suggested that you write the exams in pencil.

NOTE: The only acceptable reasons for missing an examination in this class, as listed in the Deferral of Final Examinations section of the University of Calgary Calendar (http://www.ucalgary.ca/pubs/calendar/current/g-6.html), are illness, domestic affliction, or religious conviction. If you miss a mid-term examination, and you provide me with the appropriate documentation, the weight of the midterm exam will be added to your final examination. There are NO MAKE UP exams in this class. If you miss the final examination, you must contact the Registrar's Office immediately.

D. <u>Homework Assignments:</u>

Homework assignments will be announced for every chapter in the textbook. The homework assignments are self-graded. It is suggested that you complete the homework assignments *by hand, and in pencil,* and that you show all your calculations. You are encouraged to work in groups on the homework assignments. It is your responsibility to make sure that you understand and can do all the problem sets in the homework assignments. If you have any questions on the homework assignments, you are encouraged to bring them up during class or in office hours. I am happy to work through any problems you have, either in a group or individually. The homework assignments form the basis of the examinations. Remember that on the exams, you will also be required to show many of your mathematical calculations by hand.

E. <u>Lab assignments:</u>

There are five mandatory lab assignments throughout the semester. Each of these assignments will be worth 5% of your grade, for a total of 25%. The lab assignments will be handed out *in the lab sessions*. It is your responsibility to get the lab assignments. The lab assignments are due *at the beginning of the next lab*. There is a mandatory \$15 lab fee, which will be collected during the second week of classes. We will not grade your first lab assignment until we receive your lab fee.

NOTE: The only acceptable reasons for handing in a lab assignment late in this class, as listed in the Deferral of Final Examinations section of the University of Calgary Calendar (<u>http://www.ucalgary.ca/pubs/calendar/current/g-6.html</u>) are illness, domestic affliction, or religious conviction. If you miss a lab assignment deadline, you must provide me with the appropriate documentation. Without appropriate documentation, you will receive a zero for that portion of your grade. If the documentation is acceptable, you will have one week to complete a make-up lab assignment.

Grades:

Your final grade will be computed as follow:

- Mid Term One	20%	
- Mid Term Two	20%	
- Lab Assignments	25%	
- Final Examination	35%	

I will use the following scale to convert percentage grades to letter grades for this class.

A + = 95 - 100	A = 90-94	A- = 85-89
B + = 80-84	B = 75-79	B- = 70-74
C + = 65-69	C = 60-64	C- = 55-59
D + = 50-54	D = 45-49	
F = below 45		

The following description of letter grades comes from the University of Calgary Calendar.

An A indicates superior performance, showing comprehensive understanding of the subject matter.

- A B indicates clearly above average performance, with knowledge of the subject matter generally complete.
- A C indicates satisfactory performance, with a basic understanding of the subject matter.
- A D indicates marginal performance and generally insufficient preparation for subsequent courses in the same subject.

An F indicates unsatisfactory performance, or failure to meet course requirements.

Policies:

- A. You are responsible for all the material covered in the textbook, in supplemental readings, during lectures, and during lab sessions.
- B. In the event that you have to miss class, you are responsible for getting the lecture notes from another student in the class.
- C. I will not distribute my personal notes to students under any circumstances.

D. You may work with other students in the class on the labs and homework assignments. However, all submitted work must be YOUR OWN INDIVIDUAL WORK. It is your responsibility to make sure you understand the definition of plagiarism, and that you avoid submitting any work which could be considered plagiarized. Students are advised to consult the 2009-2010 University of Calgary Calendar, which presents a Statement of Intellectual Honesty and definitions and

penalties associated with plagiarism, cheating, and other academic misconduct. (http://www.ucalgary.ca/pubs/calendar/current/k.html)

- E. Cell phones, pagers, blackberries, surfing the internet, checking email, and listening to music are disruptive to other students. **No electronic devices** are allowed during class or during lab sessions, with the exception of using a computer to take notes, conduct statistical analysis, or complete lab assignments. If you are caught using electronic devices for any other reason during class or lab, you will be asked to leave the classroom.
- F. There are no re-writes on any assignments or examinations in this class, and no extra credit work will be given. I do not grant extensions, unless there is an emergency, as defined in the Deferral of Final Examinations section of the University of Calgary Calendar (http://www.ucalgary.ca/pubs/calendar/current/g-6.html).
- G. If you expect to have trouble meeting *any* of the class deadlines, please make sure to discuss your concerns with me *before* the deadline.
- H. If you wish to discuss any grades in the class (on examinations, homework assignments, or labs) you must meet with either myself or one of the Teaching Assistants IN PERSON, either during office hours or during an appointment time. We will not discuss grades over email.
- I. The U of C Statement on Principles of Conduct, reproduced in the University of Calgary Calendar (<u>http://www.ucalgary.ca/pubs/calendar/current/j-2.html</u>), applies to all work in this class. Please familiarize yourself with this statement.

Additional Information:

A. FOIP:

The Freedom of Information and Protection of Privacy (FOIP) legislation disallows the practice of having students retrieve assignments from a public place, e.g., outside instructor's office, the department office, etc. Term assignments must be returned to students individually, during class or during the instructor's office hours; if students are unable to pick up their assignments from the instructor, they provide the instructor with a stamped, self-addressed envelope to be used for the return of the assignment.

B. <u>Academic Accommodation:</u>

Students with a disability, who require academic accommodation, need to register with the Disability Resource Centre (MC 295, telephone 220-8237). Academic accommodation letters need to be provided to course instructors no later than fourteen (14) days after the first day of class. It is the student's responsibility to register with the Disability Resource Centre and to request academic accommodation, if required.

C. Plagiarism:

Intellectual honesty is the cornerstone of the development and acquisition of knowledge and requires that the contribution of others be acknowledged. As a result, cheating or plagiarism on any assignment or examination are regarded as serious academic offenses. Students are advised to consult the 2009-2010 University of Calgary Calendar, which presents a Statement of Intellectual Honesty and definitions and penalties associated with plagiarism, cheating, and other academic misconduct.

D. Safewalk:

The University of Calgary provides a safewalk service to any location on Campus, including the LRT, parking lots, bus zones, and campus housing. For Campus Security/Safewalk call 220-5333. Campus Security can also be contacted from any of the "Help" phones located around Campus.

E. <u>Sociology Web Page</u>: <u>http://www.soci.ucalgary.ca</u>

F. <u>USRI</u>: At the completion of this course each student will be asked to complete an online Universal Student Ratings of Instruction (USRI) form.

G. <u>Research Ethics</u>:

Students are advised that any research with human subjects--including any interviewing (even with friends and family), opinion polling, or unobtrusive observation--must have the approval of the Departmental Ethics Committee. In completing course requirements, students must not undertake any human subjects research without discussing their plans with the instructor, to determine if ethics approval is required.

Week	Date	Reading	Торіс	DUE
One				
Μ	11 Jan.		Intro. to course, materials, 'math anxiety' etc.	
Mlab		Week 1 Lab	Introduction – lab, SPSS, projects	
W	13 Jan.	Chpt. 1	Theories, causality etc.	
F	15 Jan.	Chpt. 1	Levels of measurement	
Тwo				
Μ	18 Jan.	Chpt. 2	Description – frequency distributions	
Mlab		Week 2 Lab	Gather and enter data for projects	
W	20 Jan.	Chpt. 2	Frequency distributions contd.	
F	22 Jan.	Chpt. 2	Rates	
Three				
Μ	25 Jan.	Chpt. 3	Graphs	
Mlab		Week 3 Lab	Chpt. 1 - datasets and variables (assignment distributed)	
W	27 Jan.	Chpt. 3	Graphs, contd.	
F	29 Jan.	Chpt. 3	Graphs, contd.	
Four				
Μ	1 Feb.	Chpt. 4	Measures of central tendency	
Mlab		Week 4 Lab	Chpt. 2 - frequency distributions and recoding variables	Chapter 1 lab
W	3 Feb.	Chpt. 4	Central tendency, contd.	
F	5 Feb.	Chpt. 4	Central tendency, contd.	
Five				
М	8 Feb.	Review	Review for Midterm 1	
Mlab		Week 5 Lab	Chpt. 3 - bar charts and hist.	

W	10 Feb.	Midterm 1, part one (covers chapters 1-4)			
F	12 Feb.	Midterm 1, part two (covers chapters 1-4)			
READING WEEK	15 – 20 Feb.				
Six					
М	22 Feb.	Chpt. 5	Measures of variability		
Mlab		Week 6 Lab	Chpt. 4 - measures of central tendency (assignment distributed)		
W	24 Feb.	Chpt. 5	Variability, contd.		
F	26 Feb.	Chpt. 5	Variability, contd.		
Seven					
Μ	1 March	Chpt. 10	Bivariate relationships		
Mlab		Week 7 Lab	Chpt. 5 - measures of variability (assignment distributed)	Chapter 4 lab	
W	3 March	Chpt. 10	Bivariate relationships, contd.		
F	5 March	Chpt. 10	Bivariate relationships, contd.		
Eight					
Μ	8 March	Chpt. 12	Measures of assoc. – nom. and ord.		
Mlab		Week 8 Lab	Chpt. 10 - bivariate tables / cross tabs (assignment distributed)	Chapter 5 lab	
W	10 March	Chpt. 12	Assoc. – nom. and ord., contd.		
F	12 March	Chpt. 12	Assoc. – nom. and ord., contd.		
Nine					
Μ	15 March	Review	Review for Midterm 2		
Mlab		Week 9 Lab	Chpt. 12 – Measures of association	Chapter 10 lab	
W	17 March	Midterm 2, part one (chapters 1-5, 10, 12)			

F	19 March	Midterm 2, pa	rt two (chapters 1-5, 10, 12)	
Ten				
М	22 March	Chpt. 13	Regression and correlation	
Mlab		Week 10 Lab	Chpt. 13 – regression	
W	24 March	Chpt. 13	Reg. and corr., contd.	
F	26 March	Chpt. 13	Reg. and corr., contd.	
Eleven				
М	29 March	Chpt. 13	Regression and correlation	
Mlab		Week 11 Lab	Chpt. 13 – multiple regression (assignment distributed)	
W	31 March	Chpt. 13	Reg and corr.	
F	2 April	NO CLASS		
Twelve				
М	5 April	Chpt.6	Normal distribution	
Mlab		Week 12 Lab		Chapter 13 lab
W	7 April	Chpt. 6	Normal distribution	
F	9 April	Chpt. 6	Normal distribution	
Thirteen				
Μ	12 April	Review	Review material from Chpts. 1-4	
Mlab		Week 13 Lab		
			Review material from Chpts.5, 10,	
W	14 April	Review	12	
F	16 April	Review	Review material from Chpts. 13, 6	

Final Examination (CUMULATIVE – covers the entire course): Registrar Scheduled during 19-29 April