

Syllabus: Social Statistics

Course: SOC1 476L
Session: Summer I 2009
Time: 9:00 – 10:15 am (Mon.-Fri.) at BUSAD D102 for Class
10:30 – 11:45 am (Mon. & Wed.) for SAUND 342 for Lab
Instructor: Hosik Min, PhD
Email: hosik@hawaii.edu
Phone: 808-956-3339
Office Hours: TT 10:30-11:30 pm & by Appointment
Office: Miller Annex MA-2

COURSE DESCRIPTION

This course introduces you to the basics of social statistics—techniques that sociologists and other social scientists use to summarize numeric data obtained from censuses, surveys, and experiments. The topics include frequency distribution, central tendency, variability, probability theory, and estimation. You will also learn how to test hypotheses for group differences in means (z test, t test), for association between two variables (correlation, chi-square test), and for the basics of regression analysis.

COURSE OBJECTIVES

Upon successful completion of this course, you will be able to complete the following tasks:

1. Explain basic concepts of social statistics (e.g., population vs. sample, sampling distribution).
2. Summarize numeric data by computing descriptive statistics (e.g., mean, variance) and by creating tables and graphs. For each procedure, you will learn a computer method (using software called SPSS).
3. Compute various inferential statistics (e.g., t-score) using computer methods.
4. Test hypotheses applying probability theory.
5. Explain the differences among various statistical techniques and identify an appropriate technique for a given set of variables and research questions.
6. Explain the Basic Concepts and Interpretation on Regression analysis.

These skills will be useful for your careers in two ways. First, statistics is the primary analytical method in sociology (and many other social sciences). For those of you who pursue academic careers, your statistical ability will influence your admissions to and performances in graduate programs as well as your research potentials as sociologists. Second, statistics also has a practical value for non-academic careers, because some jobs require experiences in data management and analysis (e.g., federal and state government jobs, marketing positions). Therefore, mastering the materials in this course will make you an attractive job candidate.

PREREQUISITES

There are no formal prerequisites for this course. However, you do need basic knowledge of math, including addition, subtraction, multiplication, and division. After the

SOCI 476L: Social Statistics

University of Hawaii at Manoa, Summer I 2009

first class session, you can work on some problems in this section to see whether you have sufficient background for the course or just to refresh your skills. Again, the course does not require advanced math knowledge, and your performance in this course will instead depend on conceptual skills that you develop through assignments, exercises, and class discussions. Some of you might have taken statistics courses in other departments. *These courses do not necessarily promise your success in this class* because statistics courses vary in terms of content and approach.

REQUIRED COURSE MATERIALS

Text:

Richey, Ferris J. 2008. *The Statistical Imagination, 2nd Edition*. McGraw Hill. ISBN: 9780072943047. Available at UH Book Store and www.amazon.com.

Bring your text to each class session; you will need it for in-class exercises.

Recommended:

Miller, Jane E. *The Chicago Guide to Writing about Numbers*, The University of Chicago Press.

ISBN: 0226526313 Available at www.amazon.com. Again, you do not have to purchase this book. But it will help to write about numbers in class as well as others.

Computer Access:

You will learn how to use a computer program, called SPSS, which is available at Sociology computer labs. Hence, you do not need to purchase the software.

COURSE REQUIREMENTS

Attendance:

Class attendance is required. Unlike some other sociology courses, statistics requires you to gradually but constantly build your knowledge and skills. It is very difficult to catch up once you get behind. You are also expected to contribute to the class by asking questions, participating in class discussions, and working with each other for in-class exercises. Therefore, your attendance is essential for making these contributions.

Absence Penalty: See the grading section.

Excuses: The following and only the following absences are eligible to be excused: Religious holidays, as specified in UH policy; absences due to representing UH at official functions, including intercollegiate debating or varsity sports events; verified emergencies and/or medical illness. Medical illness refers to conditions that are serious in nature and require treatment by medical professionals and/or surgical or other treatments. Documentation is required for an absence to be excused.

Religious Holidays: Students will be allowed to miss class due to observance of religious holidays, but they are still responsible for all materials assigned outside and covered in class on the day(s) missed. You must talk with your instructor in advance of missing a class for religious holiday observance reasons.

SOCI 476L: Social Statistics

University of Hawaii at Manoa, Summer I 2009

Sign-up Sheet: I will circulate a sign-up sheet once at the beginning of every session. The person sitting in the last row is responsible to immediately return the sheet to me after signing.

Coming in Late and Leaving Early: If you come in late, see me after class session, so you can sign on the attendance sheet. If you know you will need to leave early, come talk to me before the class session. In the attendance sheet, circle your signature to indicate your partial attendance (coming late or leaving early), which will be counted as half attendance.

Reading Assignments:

Read the assigned chapters before you come to each session (see the class schedule in the end of this syllabus). In order to successfully complete reading assignments, you need to understand what is in each chapter. In addition to highlighting the text and taking notes, I suggest you write down any specific questions. You may find some chapters difficult to follow. Don't worry if this happens, but it is important to finish reading the assigned chapter before each session to get a general idea about the chapter and go back to it after class to make sure that you understand the materials better. I emphasize that you should keep up with the reading assignments on a weekly basis. Cramming multiple chapters just before exams would most likely result in poor grades in this course.

Presentation & Paper Assignment: This assignment consists of two parts: a presentation and a paper. First, you will be selected as a team member (we will decide the team in the first week), and your team will select the topic you want to investigate by using statistical methods you learned in this class – I will help you to select one. During the semester, your team will decide what kinds of statistical methods you will use, and strategize the analysis process including data handling, analyzing, and interpreting. Then, each team will present their results at the presentation session and other students will give you critic. The presentation is a team work, so your score will be given based on your team's performance. Your team may want to use excel charts and power-point slides that we learned in the class to present your findings more effectively. The team presentation will count for 50 points. After the presentation, each member of the team have to write a report on their results reflected on the critic. This is an individual report, not a team work. Your reports can be similar, because the findings are the same. However, I strongly recommend writing a report individually, which can help you to write more analytically. Also, you can refer the chapter that I provided to you during the class, which dealt with writing numbers and statistics. The individual report also counts for 50 points. DO NOT WORRY. I will show it to you how to analyze the data, make a presentation, and write a report during the class and a lab session. The due date for submitting your report is the final day of the semester.

Collaboration Policy: Please help each other, by all means, to exchange notes for missed class sessions, study for exams, etc. The assignments that you turn in should be your own work, however. Any form of violation will result in a "zero" for that particular assignment or an "F" for the course, at my discretion. See more information on the Honor Code below.

Late Assignment Policy: I will collect assignments at the beginning of the scheduled class sessions. If you turn in your assignments late (anytime after the class session starts and before 4:00 pm on the next day), you will lose 5 points (out of 50). Where to

SOCI 476L: Social Statistics

University of Hawaii at Manoa, Summer I 2009

submit late assignments: email me. I will count the time based on the time that you have sent. If you miss this deadline (4:00 pm on the next day), it is your responsibility to contact me immediately—you will need submit all assignments (and take all exams) in order to receive a final grade.

Tests: You will take two tests, a Midterm and a Final. Each test will consist of multiple choices, short answer questions, and problem-solving questions. For questions that require complex formulas I will provide a formula sheet, so you do not have to memorize them. Each test is intended to evaluate your understanding and skills for each segment of the course, and in this sense, tests are not cumulative. Throughout the course, however, you will learn new materials by building on what you have learned previously. Only in this sense, tests may have some cumulative elements.

GRADING

- **Presentation & Report Paper (1)**, 100 points each. (In total, 200 of 400 final score)
- **Tests (2)**, 100 points each. (200 of 400 final score)
- **Absence Penalty.** No point reduction until the third unexcused absence (as defined in the attendance section). Start losing 10 points (from the 400 final score) each time from the fourth absence. Coming in late and leaving early count as .5 absence (5 points).

To convert your final score to a letter grade, I will first divide your final score by 650 and multiply by 100 to get a percentage and then use the following rule:

100-98 A+	97-94 A	92-90 A-
89-87 B+	86-83 B	82-80 B-
79-77 C+	76-73 C	72-70 C-
69-67 D+	66-63 D	62-60 D-
59- 0 F		

Incomplete Grades

Missing work or uncompleted assignments are insufficient reasons for a grade of Incomplete. An Incomplete grade will not be given except under extenuating circumstances at the instructor's discretion.

COURSE WEB SITE

When you register for this course, you automatically gain access to the Lulima web site. In this web site, you can view your assignment and test scores. You can also send email to me and your classmates through Lulima.

Sending and receiving email: I use Lulima to send email to the class about assignments, tests, materials covered in class sessions, etc. I may send email to some of you individually to ask questions about your assignments, tests, etc. All email messages from this course will be sent to your UH mailer accounts. If you use other accounts (e.g., yahoo, AOL), make sure to frequently check your UH accounts, too.

Lecture outlines: I will post lecture outlines on Lulima. I will do my best to post them before each class session, so those of you who are interested can print and bring them to class. But please note that the primary purpose of these outlines is to facilitate your review *after* each session.

TEXTBOOK WEB SITE

Go to <www.mhhe.com/ritchey3>, and then click "student resources" on the right-bottom menu. This textbook web site provides excellent resources, which can help you improve your skills and prepare for exams. The site includes interactive quizzes (similar to the end-of-the-chapter questions), general online statistical resources. The use of this site is optional.

ACADEMIC HONOR POLICY

Plagiarism

The following definition of plagiarism comes from the UH-Manoa Student Conduct Code: Plagiarism includes but is not limited to submitting, in fulfillment of an academic requirement, any work that has been copied in whole or in part from another individual's work without attributing that borrowed portion to the individual; neglecting to identify as a quotation another's idea and particular phrasing that was not assimilated into the student's language and style or paraphrasing a passage so that the reader is misled as to the source; submitting the same written or oral or artistic material in more than one course without obtaining authorization from the instructors involved; or "drylabbing," which includes obtaining and using experimental data and laboratory write-ups from other sections of a course or from previous terms. (**University of Hawai'i at Manoa Student Conduct Code (1992), p. 6**)

CLASSROOM COURTESY

Classroom courtesy is necessary to ensure that all students have the opportunity to learn without distractions. This means no talking during lectures (unless recognized by the professor or discussion leader), reading newspapers, etc. during class.

Cell Phone Use

You are not allowed to make/answer phone calls or send/receive text messages during class sessions. If you must have a cell phone to receive emergency calls about children or other family members, keep it on vibrate.

Class Discussions

Class discussions can stimulate strong feelings and heated debate. Because this is a college classroom, all discussions must be scholarly. Failure to abide by these principles can result in academic penalties ranging from a lowered grade, to dismissal, to failing the course.

Scholarly comments are:

Respectful of diverse opinions and open to follow-up questions and/or disagreement; related to the class and course material; advance the discussion about issues related to the course and/or course material rather than personal beliefs; are delivered in normal tones and a non-aggressive manner.

Unacceptable behaviors are:

(a) Personal attacks. This includes attacks on a person's appearance, demeanor, or political beliefs. (b) Interrupting your instructor or other students. Raise your hand and wait to be called on by the discussion leader or myself to prevent this problem. (c) Using the discussion to argue for political positions and/or beliefs. If political discussions arise, they must be discussed as scholarly endeavors (see above). (d) Using raised tones,

SOCI 476L: Social Statistics

University of Hawaii at Manoa, Summer I 2009

yelling, engaging in arguments with other students, and being physically aggressive. (e) Ignoring your instructor's authority to protect the integrity of the classroom. Anyone who violates these guidelines will be asked to cease and desist and may be asked to leave the classroom and/or drop the course.

DISABILITY ACCOMMODATIONS

Kokua

Any student who feels s/he may need an accommodation based on the impact of a disability is invited to contact me privately. I would be happy to work with you, and the KOKUA Program (Office for Students with Disabilities) to ensure reasonable accommodations in my course. KOKUA can be reached at (808) 956-7511 or (808) 956-7612 (voice/text) in room 013 of the Queen Lili'uokalani Center for Student Services.

SYLLABUS CHANGE POLICY

This syllabus is a guide for the course and is subject to change with advanced notice.

YOUR AGREEMENT

If you have any questions about the syllabus or any element of this course, ask me right away. You will be asked to confirm your agreement with the syllabus later in the course. Without agreement, your assignments and exams will not be graded. Note that if you cannot agree with the syllabus, you have an option of dropping from the course.

COURSE SCHEDULE of ASSIGNMENTS and EXAMINATIONS

	Topic	Date
Chapter 1	Statistical Imagination	05/26/09
Chapter 2	Organizing Data and Measuring Error	05/27/09
Lab 1	SPSS Introduction, Data Input	05/27/09
Chapter 3	Charts and Graphs	05/28/09
Chapter 3	Charts and Graphs/Project Team Selection	05/29/09
Chapter 4	Measuring Averages	06/01/09
Lab 2	Mean, Chart, & Graph	06/01/09
Chapter 5	Measuring Dispersion	06/02/09
Chapter 6	Probability Theory	06/03/09
Lab 3	Dispersion, Skewness, & Kurtosis	06/03/09
Chapter 6	Probability Theory	06/04/09
Chapter 7	Using Probability Theory/Project Topic Due	06/05/09
Chapter 8	Parameter Estimation	06/08/09
Lab 4	Probability	06/08/09
Chapter 9	Hypothesis Test 1	06/09/09
	Midterm	06/10/09
	Holiday	06/11/09
Chapter 10	Hypothesis Test 2	06/12/09
Chapter 11	Bivariate Relationship	06/15/09

SOCI 476L: Social Statistics

University of Hawaii at Manoa, Summer I 2009

Lab 5	Hypothesis testing	06/15/09
Chapter 12	ANOVA	06/16/09
Chapter 12	ANOVA	06/17/09
Lab 6	ANOVA/Interpretation	06/17/09
Chapter 13	Nominal Variables	06/18/09
Chapter 14	Bivariate Correlation and Regression 1	06/19/09
Chapter 14	Bivariate Correlation and Regression 1	06/22/09
Lab 7	Correlation/Interpretation 1	06/22/09
Chapter 15	Bivariate Correlation and Regression 2	06/23/09
	Bivariate Correlation and Regression 2	06/24/09
Lab 8	Regression/Interpretation 1	06/24/09
	Student Presentation/Peer Review	06/25/09
	Student Presentation/Peer Review	06/26/09
	Student Presentation/Peer Review	06/29/09
Lab 9	Correlation/Interpretation 2	06/29/09
	Student Presentation/Peer Review	06/30/09
	Student Presentation/Course Evaluation	07/01/09
Lab 10	Regression/Interpretation 2	07/01/09
	Final Exam/Project Due	07/02/09
