

Sociology 328: Social Statistics (3.0 Credits)
Department of Sociology, University of British Columbia
Summer Term II, July 02 - Aug 09, 2013

Location: Geography 212

Instructor: Andrew C. Patterson

Office Hours: 2:00-4:00 pm M/W
(and by appointment)

Time: 3:00 – 6:00 pm Tu/Th

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Office Location: [TBD]

Course Description and Objectives:

Statistics provide one way for social scientists to understand the world around them. Statistical facts are subject to our own imperfect interpretations and they rarely offer any proof, but they do provide an important kind of evidence that researchers can use to support their claims. This course will acquaint students with the statistical frame of thinking and introduce some basic statistical concepts that are common in social science research.

Everyone is expected to grasp the rationales and concepts that are taught. With a rigorous study habit and reliance on the help of others, however, this class need not be any more difficult than any other 300-level course in sociology. The syllabus is structured so that students can acquaint themselves early on with the resources available to them and students are strongly encouraged to seek help if they should struggle at all. Although high school-algebra is assumed as a prerequisite, students will not be held responsible for complex equations and calculations. A primer of basic high school algebra will also be provided early in the course.

Students should leave the course feeling confident about asking statistical questions and seeking statistical answers. Sometimes, though, there is more than one explanation for why things are the way they are. This is especially true in sociology, which makes heavy use of multivariate regression in particular. This technique will be taught towards the end of the course, building upon all of the previous coursework, although an intuitive understanding of how multiple explanations can play out in a research project will be emphasized earlier on. Altogether, this course will arm students with the background they need to grasp a basic understanding of most quantitative research being carried out in sociology today.

Grading Summary:

Participation	5%	
Homework assignments	10%	Due on most Mondays before class
Mid-term exam	25%	July 23 during the first half of class
Lab assignment	5%	Due on July 30 by 5:00 pm
Article critique	25%	Due date August 6 by 5:00 pm
Final exam	30%	Date and time TBA

Required Course Reading:

Healey, J., & Prus, S. (2013). *Statistics: A tool for social research* (2nd ed.). Scarborough, ON: Nelson Education.

Course Rules and Procedures:

Etiquette and Decorum. The use of cell phones and internet during class is distracting to your fellow students and – importantly – yourselves. Cell phone and laptop use during class is strictly prohibited. Please turn these off and stow them away upon entering the classroom. If you require an exception to this rule you must submit a written request in advance with your reasons for the exception attached, in the understanding that your request may be denied. In every other way students must use a professional and respectful demeanour during classroom discussions, verbal exchanges, and written communications. This includes any and all communication with with the instructor, teacher assistants, and fellow students before, after, and during class sessions. Students are also expected to be give their respectful attention during lectures and to eliminate any disruption of the attention of their classmates.

Academic Dishonesty, Cheating, and Plagiarism. All students must make themselves aware of the penalties for cheating, plagiarism and other forms of academic misconduct by visiting the University website. **Instances of plagiarism, cheating, claiming credit for other people’s work or for work submitted for another course, and other cases of academic dishonesty will be reported to the University for disciplinary action and will result in a grade of zero.** Students may also be asked to submit a copy of their work electronically so that it can be used against professional services that check for plagiarism.

Written Assignments. You must retain an electronic copy of all written assignments. This includes the group assignment, home assignment, lab assignment, and individual project. You must also properly cite all published work and all ideas other than your own since failure to do so is plagiarism. You may not use work submitted to another course. In addition, the following guidelines are required for each written assignment:

- Times New Roman font.
- 12-point font
- Page numbers at the top right of each page.

Each written assignment is due at the beginning of the class session specified. For each day an assignment is late including weekends, 7 percentage points will be taken off of the final mark. If you require an exception to this rule for reasons pertaining to physical, mental, or family health, you may contact the Faculty of Arts Academic Advising Office (Buchanan D111; 604-822-4028).

Missed and Rescheduled Exams. Exam times begin for everyone at the dates and times specified above and will not be extended for those arriving late. Missed exams will

receive a mark of zero. Exceptions for missed exams may be made only with a letter from the Arts Advising Office (Buchanan D111; 604-822-4028). Requests for a rescheduled exam in cases of medical emergencies must be made in advance and must include a detailed doctor's note or other legal documentation that validates the student's reasons for making the request. Makeup exams may have a different format and may contain different content covering the course material than the original exam.

Course Requirements:

Exams. The midterm exam will occur during the regular location and class session for the date specified above. The date, time, and location for the final exam will be determined by the University. All exams will consist of a combination of multiple choice, short answers, and an interpretive essay question.

Class participation. Participation is based on class attendance and contributions to in-class group assignments. As some students may feel shy around others, no one will be marked based on their vocal contributions to lectures.

Homework assignments. Regular homework assignments must be submitted as proof that students have worked through the concepts discussed in the text. These will involve submission through the online software package associated with the text, *CengageNOW*.

Lab assignment. The lab assignment will acquaint students with software commonly used in social-statistical research, i.e., SPSS, Excel, and a word processing application that can incorporate output from these. Students are asked to carry out the project on their own time by accessing stations on campus that make the software available, such as the lab in the Buchanan complex or in the sociology department. An in-class demonstration of the software will be provided during the second class session.

Article critique. Each student must choose a peer-reviewed research article from a professional academic journal that uses quantitative research methods. Students are then asked to explain the author's or authors' rationale for using the methods in question and then assess the persuasiveness and validity of the conclusions drawn. As this assignment is meant to assess the statistical reasoning learned in this course, please do not use qualitative or historical research articles for this project. Assignments will be rewarded for attention to detail, understanding of the statistical concepts used, demonstration of statistical reasoning, clarity of presentation, persuasiveness of argument, validity of the conclusions, and innovative thinking. Further explanation of the assignment will be provided in advance.

Course Schedule and Required Readings

July 2: Introductions, primer in algebra and probabilities, and models in sociology

July 4: Basic descriptive statistics, academic honesty, and software demonstrations

Required reading: Healey & Prus, Prologue + Chapter 1

July 9: Fundamental descriptive statistics

Required reading: Healey & Prus, Chapters 2-3

Due: Assignment for Prologue and Chapter 1

July 11: Inference and the normal distribution

Required reading: Healey & Prus, Chapters 4-5

Due: Assignments for Chapters 2-3

July 16: Confidence intervals and introductory hypothesis testing

Required reading: Healey & Prus, Chapters 6-7

Due: Assignments for Chapters 4-5

July 18: Sample comparisons

Required reading: Healey & Prus, Chapter 8-9

Due: Assignments for Chapters 6-7

July 23: Midterm exam (further discussion of sample comparisons in 2nd half of class)

July 25: Chi-square and introduction to statistical associations

Required reading: Healey & Prus, Chapters 10 - 11

July 30: Ordinal associations

Required reading: Healey & Prus, Chapter 12

Due: Assignments for Chapters 8 – 10

Due: Lab assignment

August 1: Bivariate linear models and correlation

Required reading: Healey & Prus, Chapter 13

Due: Assignments for Chapters 11-12

August 6: Multivariate linear models and partial correlation

Required reading: Healey & Prus, Chapter 14

Due: Article critique

August 8: Conclusions and review

Due: Assignments for Chapters 13-14

Final exam: Date, time, and location TBA