

Statistics in Social Research

Sociology 350

TTh 4:05-5:25 Room: [STBIO N2/2](#)

Professor K.MacKenzie
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Office Hours:

Leacock 435, 514-398-4400 extension 00017

TTh 10:00 – 12:00

Bronfman 236, 514-398-4400 extension 0515

MW 12:00 – 1:00 and 4:30 – 5:30

Teaching Assistants: William Marshall

TA Office Hours TBA

Course Description

The purpose of this course is to introduce you to the purpose and basic methodology of basic statistical analyses as used in the Social Sciences. Statistics in the Social Sciences is used primarily as a tool for the evaluation of empirical commonality among members and across populations (groups) of individuals. The fundamental reason for its use is that our limited experiential knowledge of the world around us is often inadequate for assessing such commonalities. Knowledge to be gained from statistical research is often of a quality and importance that cannot be obtained from other forms of analysis. Learning goals for this course are as follows:

- 1) To become acquainted with the basic methodology of introductory descriptive and inferential statistical analyses, focusing on the concept of distributions.
- 2) To gain competency in the critical evaluation of empirical analyses of the social world.
- 3) To obtain the tools both technical and intellectual to perform statistical analyses and critiques of your own.

You should also be aware that this course is intended as the first in a series. In the second, Data Analysis, you get to extend your repertoire, using the basic methodology learned in this course as a foundation.

Expectations

About Math: Please note that this is not a mathematics course. You need to know basic arithmetic operations such as addition, subtraction, multiplication, squares and square roots and to be familiar with high-school algebra.

To do well in the course there are three essential elements. First, you must keep up with the textbook and other readings, and come to class prepared to discuss the material. Second, you must work through exercises regularly. Experimenting on your own is also a good way to practice. Look at relationships in the data that are presented in class. The assignments should help you practice and think about the concepts used and provide you with practical data analytic skills.

Structure of the Course

The course will follow, for the most part, the structure of the textbook. It begins with an introduction to the concept and empirical detection of distributions within data, carries on to the analysis of association between variables, to probability theory, then proceeds to an introduction to inference and hypothesis (significance) testing for continuous, discrete, and categorical variables.

Computer Work & Labs

Computer-aided statistical analyses are fundamental for this course. Your assignments will usually have a computer component to them.

We shall be using the statistical package STATA, available in all the arts computer labs, and several data sets prepared for the class. During scheduled conferences you will learn how to use STATA for the assignments, as well as receive help on matters related to STATA and the main body of the course. You may as a reference the [stata learning modules at UCLA](#) which will give you details on all the main stata commands you will be using. This is part of the [UCLA Stata portal](#), which I encourage you to browse for other resources related to learning and using Stata. Class data sets to be used for the assignments will be made available for download through MyCourses and you will be instructed on how to get them in conference.

Evaluation

Your grades for this course will be based on exercise sets (15%), a midterm examination (25%), and a final examination (60%).

The final examination will be scheduled by the university during the formal period in December: the date will be announced in class as soon as it is scheduled. The final exam will cover content in the entire semester's work.

Readings:

1. This year I will try using an on-line textbook that you can use for free, or purchase. The textbook we used for the last few years now costs more than \$200.

Introductory Statistics OpenStax College

<https://openstaxcollege.org/textbooks/introductory-statistics>

A syllabus will be prepared and posted on MyCourses.

2. MyCourses material posted by the instructor.

Office Hours

I will be available for student consultations in my office during the office hours. Other times can be arranged by appointment.

Outside of office hours, I may be found in my office by chance, or you can send me an e-mail.

Academic Integrity

McGill University values academic integrity. Therefore all students must understand the meaning and consequences of cheating, plagiarism and other academic offences under the Code of Student Conduct and Disciplinary Procedures (see <http://www.mcgill.ca/integrity> for more information).

Credit for Statistics Courses & Course Overlap: IMPORTANT

McGill credit will be given for **ONLY ONE** of the following introductory statistics courses:

PSYC 204	PSYC 305	AEMA 310	BIOL 373	ECON 227D1/ECON 227D2
EPSC 215	GEOG 202	MATH 203	MGCR 271	SOCI 350.

You will not get credit for SOCI 350 if you have taken one of these other courses, and you will not get credit for the others in the future if you successfully complete this class.