York University
Faculty of Liberal Arts and Professional Studies
Department of Public Policy and Administrative Studies

AP/PPAS 3300 6.0 (POLS 3300) – Statistics for Social Sciences
Fall-Winter 2020-2021

Course Director: Tracy Supruniuk
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Lecture Time and Location: Please note that this is a course that depends on remote teaching and learning. There will be no in-person interactions or activities on campus. Lectures will be conducted live (synchronous) via zoom on Wednesdays from 7pm to 10pm. Weekly links to these live lectures will be posted on eClass (formerly moodle). These lectures will also be recorded (asynchronous) and posted on eClass. All tests will be conducted synchronously on their scheduled dates.

Virtual Office Hour: Tuesdays from 5 pm to 6 pm. The zoom link for my office hour is located on the course eClass site. Please note that I will help students on a first come first serve basis, which means that you might have to wait in the zoom waiting room until it is your turn.

Prerequisite: none

Course Description

In this course students will learn how to apply statistics to social science research. By the end of the course you should be able to interpret and critically assess statistics presented in the research of others, and you should be able to execute and interpret basic statistical calculations in your own research. This course is designed to provide you with a foundation in descriptive and inferential statistics. In the first part of the course we will focus on descriptive statistics. In particular, you will learn about frequency tables, graphs, measures of central tendency, measures of dispersion, and the normal curve. The second part of the course will look at inferential statistics including sampling, confidence intervals, and hypothesis testing. In the final part of the course we will return to descriptive statistics and explore measures of association.

Objectives of the Course

To develop an understanding of:

- The relevance of statistics for social science research
- Basic statistical calculations
- How to critically assess statistical information
- How to describe a sample
- How to use data from a sample to make inferences about a population
- How to use SPSS

Required Course Text

Healey, Joseph F., and Steven G. Prus. 2018. *Statistics: A Tool for Social Research*.
    Fourth Canadian ed. Toronto: Nelson Education Ltd.

Also Required for this Course:

1. Calculator - Nothing fancy—just make sure it has a square root function.

2. Computer and related equipment - You will need a computer with a webcam and microphone, and/or a smart device with these features, as well as a stable, higher-speed Internet connection.

3. SPSS Software – In this course you will learn how to use statistical software (SPSS) to calculate statistics, and create tables, charts and graphs. There is a free online version that you can access through the York University website. We will go over how to access and use this software in lecture.

Technical requirements for taking the course:

Several platforms will be used in this course (e.g., Moodle, Zoom, etc.) through which students will interact with the course materials, the course director, as well as with one another.

Students shall note the following:

- Zoom is hosted on servers in the U.S. This includes recordings done through Zoom.
- If you have privacy concerns about your data, provide only your first name when you join a session.
- The system is configured in a way that all participants are automatically notified when a session is being recorded. In other words, a session cannot be recorded without you knowing about it.

Here are some useful links for student computing information, resources and help:

- Student Guide to Moodle: https://lthelp.yorku.ca/student-guide-to-moodle
- Zoom@YorkU Best Practices: https://yorku.zoom.us/
- Zoom@YorkU User Reference Guide: https://yorku.zoom.us/
- Computing for Students Website: https://uit.yorku.ca/students-getting-started/
- Student Guide to eLearning at York University: http://elearning-guide.apps01.yorku.ca/

Assignments and Grading

Test #1 – Nov 4	20%
Test #2 – Jan 27	20%
Test #3 - March 3	20%
Test #4 - April 7	20%
Assignment - TBA	10%
Participation	10%

Participation Mark

While attendance for live lectures is not mandatory, you cannot do well in this course if you are not attending lectures and participating in discussions and exercises. This course covers a lot of material in a relatively short period. Course content is cumulative, meaning it is often the case that understanding something presented in one lecture requires an understanding of things covered in previous lectures. Lectures will be recorded and posted on eClass for students to review. I do not post my notes or powerpoint slides on eClass.

Assignment

Assignment instructions will be posted on eClass. Please note that assignments will be submitted through a Turnitin link on eClass.

Assignment Submission and Deductions for Lateness

The due date for the assignment is firm. Late assignments will receive a deduction of one mark per day. For example, if an assignment that received 9/10 is handed in one day late, the mark will be reduced to 8/10. All assignments are to be submitted through the appropriate link on the eClass site for this course. Emailed assignments will not be accepted and do not leave your assignments in your instructor's mailbox. If your assignment is late due to illness or a death in the family, you will be required to produce a doctor's note or death certificate.

Missed Tests

If you miss a test due to illness or a death in the family, you have to produce a doctor's note or death certificate in order to write the make-up test.

Email Policy

In general, questions should be asked in lecture or during my office hour. Email should be used only in the case of an emergency. I am more than happy to discuss course content and provide additional help during my office hour. If you have a scheduling conflict with my office hour, I will try my best to accommodate you at a mutually agreeable time.

Academic honesty and integrity

In this course, we strive to maintain academic integrity to the highest extent possible. Please familiarize yourself with the meaning of academic integrity by completing SPARK's Academic Integrity module at the beginning of the course. Breaches of academic integrity range from cheating to plagiarism (i.e., the improper crediting of another's work, the representation of another's ideas as your own, etc.). All instances of academic dishonesty in this course will be reported to the appropriate university authorities, and can be punishable according to the Senate Policy on Academic Honesty.

There is also a tutorial on academic integrity at this address:

https://spark.library.yorku.ca/academic-integrity-what-is-academic-integrity/

Students with Accommodations

For students who require assistance please notify me the beginning of the course. Follow this link for York University's policy regarding academic accommodation for students with disabilities.

http://www.yorku.ca/secretariat/policies/document.php?document=68

York Policy on Religious Accommodations

Please notify the course director at the beginning of the course if any of the tests or assignment due dates conflict with important dates in your religion. An alternative time will be worked out with students according to their individual needs.

Student Conduct

All students are expected to familiarize themselves with the university student conduct policies. Follow this link for additional information.

http://www.yorku.ca/secretariat/senate_cte_main_pages/ccas.htm

Lecture Recordings

1) the recordings should be used for educational purposes only and as a means for enhancing accessibility; 2) students do not have permission to duplicate, copy and/or distribute the recordings outside of the class (these acts can violate not only copyright laws but also FIPPA); 3) individual lecture recordings will be available on moodle for one week after they are originally posted; and 4) all recordings will be destroyed after the end of classes.

READINGS

Fall Term

Sept 9   Course Introduction

Sept 16   Refreshing Your Math Skills and Introducing SPSS

Healey and Prus – Prologue: Basic Mathematics Review, Appendix F (pages 495- 497), Appendix G (pages 510-526)

Cohn, Nate. "A 2016 Review: Why Key State Polls Were Wrong About Trump." *The New York Times*, May 31, 2017, https://www.nytimes.com/2017/05/31/upshot/a-2016-review-why-key-state-polls-were-wrong-about-trump.html

Kennedy, Robert F. Jr. "Was the 2004 Election Stolen?" *Common Dreams*, June 1, 2006., http://www.commondreams.org/views06/0601-34.htm

Sept 23   The Importance of Statistics in Social Research

Healey and Prus – Chapter 1

Sept 30   Basic Descriptive Statistics

Healey and Prus – Chapter 2

Oct 7   Measures of Central Tendency and Measures of Dispersion

Healey and Prus – Chapter 3

Oct 14   Fall Reading Week – Enjoy!

Oct 21   The Normal Curve

     Healey and Prus – Chapter 4

Oct 28   Test #1 Review

Nov 4   Test #1 (In-class) – Good Luck!

Nov 11   Introducing Inferential Statistics and Sampling

     Healey and Prus – Chapter 5

Nov 18   Confidence Intervals

     Healey and Prus – Chapter 6

Nov 25   Hypothesis Testing I – The One Sample Case

     Healey and Prus – Chapter 7

Dec 2   Hypothesis Testing II – The Two Sample Case

     Healey and Prus – Chapter 8

Winter Term

Jan 13   Hypothesis Testing I and II Continued

     Healey and Prus – Chapters 7 and 8

Jan 20   Test #2 Review

Jan 27   Test #2 (In-class) – Good Luck!

Feb 3   Hypothesis Testing III – The Analysis of Variance (ANOVA)

     Healey and Prus – Chapter 9

Feb 10   Hypothesis Testing IV – Chi Square

     Healey and Prus – Chapter 10

Feb 17   Winter Reading Week

Feb 24   Introducing Bivariate Measures of Association

Healey and Prus – Chapter 11

March 3   Test #3 Review

March 10   Test #3 (In-class) – Good Luck!

March 17   Association Between Variables Measured at the Ordinal Level

Healey and Prus – Chapter 12

March 24   Correlation and Simple Regression

Healey and Prus – Chapter 13

March 31   Final Test Review

April 7   Final Test (In-class) – It's been a pleasure. Good Luck!