POLITICAL SCIENCE 3NN3
Statistical Analysis of Primary Data
Summer 2021

Instructor: Dr. Julie Croskill
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Office Hours: By Zoom appointment, (email instructor to schedule)

Lecture: Virtual – Available on Avenue to Learn

Tutorials: Mondays and Wednesdays from 6:30 - 9: 30 pm via Zoom

Contents

Course Description

In POLSCI 3NN3, students will learn to calculate, analyze, and present quantitative data. This course will introduce you to descriptive statistics, inferential statistics, and measures of association. Using a provided dataset, students will learn to select appropriate variables, clean, code and manipulate data, and then apply statistical analyses to answer research questions such as:

- Who participates in elections?
- What are the most important election issues to Canadians?
- Who is most likely to support social spending?

Course Objectives

By the end of the course, students should be able to:

- Calculate basic descriptive statistics, inferential statistics, and measures of association & know which type of statistical analyses is appropriate to use based on research questions and available data.
- Use SPSS for data analysis.
- Apply quantitative output to critically answer political science questions.

Required Materials and Texts

Course Textbook: Noack, Andrea. 2018. *Social Statistics in Action: A Canadian Introduction*. Oxford University Press.

This book is available at the McMaster University Campus Book Store, or you can rent a digital copy (at a lower price) through [Oxford's digital textbook platform.](#)

Avenue to Learn: The course's Avenue to Learn website will be used to access lecture video, assignment instructions, communicate, complete tests, and turn in assignments. Students are responsible for regularly checking the message board as well as their McMaster webmail account for course updates.

Zoom: Students are required to access tutorials via their McMaster Zoom account. Students can register for a free account and download the applicable software at https://mcmaster.zoom.us/ or by clicking [here.](#)

SPSS: Students will require SPSS to follow along with tutorial examples, and complete tutorial assignments. SPSS is available via [McMaster's Virtual Desktop](#). Students will be given instruction on how to access this resource during the course introduction.

Class Format

There will be two components to this course: asynchronous video lectures (available on Avenue to Learn) and live tutorials (via Zoom). Lecture material will cover the theoretical aspects of this course, while tutorials will apply what we learn in lecture to conduct statistical analysis using SPSS. Tutorials will also serve as an opportunity to discuss important questions raised in lecture.

Lecture videos will be posted to Avenue to Learn, however tutorial videos will not be posted out of respect for students' privacy.

Course Evaluation – Overview

1. Midterm – 20%: July 12 at 6:30 pm
2. Final Test – 20%: August 4 at 6:30 pm
3. Cumulative Tutorial Assignments – 4 x 15%, due July 7, July 16, July 30 and August 6. *Tutorial assignments are due by 11:59 pm on the due date listed.

Course Evaluation – Details

Midterm (20%), due July 12
The midterm will cover material presented up until the end of Class Six (lecture, readings and tutorial content). This open-book, one hour midterm will be comprised of multiple choice and short answer questions. The test will be delivered via Avenue to Learn, and students will be introduced to the quiz page utilized for the midterm and final test during the course introduction.

Final Test (20%), due August 4
The final test will cover material presented up until the end of Class 12, with emphasis on the material presented in Class 7- 12 (lecture, readings and tutorial content). This open-book, one hour test will be comprised of multiple choice and short answer questions. The test will be delivered via Avenue to Learn.

Tutorial Assignments
Students will be provided a data set to complete four cumulative assignments using SPSS. Each assignment will utilize skills and statistical analyses learned in lecture and tutorial to produce a final "journal style" paper that answers a political research question.

- Assignment 1: Due July 7 (11:59 pm)
- Assignment 2: Due July 16 (11:59 pm)
- Assignment 3: Due July 30 (11:59 pm)
- Assignment 4: Due August 6 (11:59 pm)

Weekly Course Schedule and Required Readings

Class 1 (June 21)
Course Introduction
Readings: Course Textbook – Chapter One

Class 2 (June 22)
Descriptive Statistics and Frequency Distributions
Readings: Course Textbook – Chapter Two

Class 3 (June 28)
Measures of Central Tendency
Readings: Course Textbook – Chapter Three

Class 4 (June 30)
Measures of Dispersion
Readings: Course Textbook – Chapter Four

Class 5 (July 5)
Population I: Probability, Sampling and Weighting

Readings: Course Textbook – Chapter Five

Notes: Assignment One Due (July 7)

Class 6 (July 7)
Population II: Estimates
Readings: Course Textbook – Chapter Six

Class 7 (July 12)
Comparing Group Means
Readings: Couse Textbook – Chapter Seven

Notes: Midterm (July 12 at 6:30 pm)

Class 8 (July 14)
ANOVA Tests
Readings: Couse Textbook – Chapter Eight

Notes: Assignment Two Due (July 16)

Class 9 (July 19)
Assessing Relationships I
Readings: Couse Textbook – Chapter Nine

Class 10 (July 21)
Assessing Relationships II
Readings: Couse Textbook – Chapter Ten

Class 11 (July 26)
Regression I
Readings: Course Textbook – Chapter Eleven

Class 12 (July 28)
Regression II
Readings: Course Textbook – Chapter Twelve

Notes: Assignment Three Due (July 30)

Class 13 (No Class August 1 (Civic Holiday))

Class 14 (August 4)
Readings: No assigned Readings

Notes: Final Test (August 4) & Assignment Four Due (August 6)

Course Policies

Submission of Assignments
Tests and assignments will be submitted via the course's Avenue to Learn website. Students will be provided a website tour in the first tutorial that will outline where lecture and tutorial content is located, and how to submit assignments and tests.

Students are expected to complete all assignments and tests individually.

Grades
Grades will be based on the McMaster University grading scale:

MARK	GRADE
90-100	A+
85-90	A
80-84	A-
77-79	B+
73-76	B
70-72	B-
67-69	C+
63-66	C
60-62	C-
57-59	D+
53-56	D

MARK	GRADE
50-52	D-
0-49	F

Late Assignments

Late assignments may be subject to a one letter grade per day deduction. For example, an A- assignment received one day late may be reduced to a B+. Late assignments will not be accepted once graded assignments have been returned to the class.

Absences, Missed Work, Illness

McMaster Student Absence Form (MSAF): In the event of an absence for medical or other reasons, students should review and follow the Academic Regulation in the Undergraduate Calendar "Requests for Relief for Missed Academic Term Work".

Students are expected to complete all course evaluation items (tests and assignments). If a student requires accommodation, please contact the instructor as soon as possible to make alternative arrangements.

Courses with an On-Line Element

Some courses may use on-line elements (e.g. e-mail, Avenue to Learn (A2L), LearnLink, web pages, capa, Moodle, ThinkingCap, etc.). Students should be aware that, when they access the electronic components of a course using these elements, private information such as first and last names, user names for the McMaster e-mail accounts, and program affiliation may become apparent to all other students in the same course. The available information is dependent on the technology used. Continuation in a course that uses on-line elements will be deemed consent to this disclosure. If you have any questions or concerns about such disclosure please discuss this with the course instructor.

Online Proctoring

Some courses may use online proctoring software for tests and exams. This software may require students to turn on their video camera, present identification, monitor and record their computer activities, and/or lock/restrict their browser or other applications/software during tests or exams. This software may be required to be installed before the test/exam begins.

Authenticity / Plagiarism Detection

Some courses may use a web-based service (Turnitin.com) to reveal authenticity and ownership of student submitted work. For courses using such software, students will be expected to submit their work electronically either directly to Turnitin.com or via an online learning platform (e.g. A2L, etc.) using plagiarism detection (a service supported by Turnitin.com) so it can be checked for academic dishonesty.

Students who do not wish their work to be submitted through the plagiarism detection software must inform the Instructor before the assignment is due. No penalty will be assigned to a student who does not submit work to the plagiarism detection software. **All submitted work is subject to normal verification that standards of academic integrity have been upheld** (e.g., on-line search, other software, etc.). For more details about McMaster's use of Turnitin.com please go to www.mcmaster.ca/academicintegrity.

Copyright and Recording

Students are advised that lectures, demonstrations, performances, and any other course material provided by an instructor include copyright protected works. The Copyright Act and copyright law protect every original literary, dramatic, musical and artistic work, **including lectures** by University instructors.

The recording of lectures, tutorials, or other methods of instruction may occur during a course. Recording may be done by either the instructor for the purpose of authorized distribution, or by a student for the purpose of personal study. Students should be aware that their voice and/or image may be recorded by others during the class. Please speak with the instructor if this is a concern for you.

Academic Accommodation for Religious, Indigenous or Spiritual Observances (RISO)

Students requiring academic accommodation based on religious, indigenous or spiritual observances should follow the procedures set out in the RISO policy. Students should submit their request to their Faculty Office *normally within 10 working days* of the beginning of term in which they anticipate a need for accommodation or to the Registrar's Office prior to their examinations. Students should also contact their instructors as soon as possible to make alternative arrangements for classes, assignments, and tests.

Academic Integrity Statement

You are expected to exhibit honesty and use ethical behaviour in all aspects of the learning process. Academic credentials you earn are rooted in principles of honesty and academic integrity. **It is your responsibility to understand what constitutes academic dishonesty.**

Academic dishonesty is to knowingly act or fail to act in a way that results or could result in unearned academic credit or advantage. This behaviour can result in serious consequences, e.g. the grade of zero on an assignment, loss of credit with a notation on the transcript (notation reads: "Grade of F assigned for academic dishonesty"), and/or suspension or expulsion from the university. For information on the various types of academic dishonesty please refer to the Academic Integrity Policy, located at https://secretariat.mcmaster.ca/university-policies-procedures- guidelines/

The following illustrates only three forms of academic dishonesty:

- plagiarism, e.g. the submission of work that is not one's own or for which other credit has been obtained.
- improper collaboration in group work.
- copying or using unauthorized aids in tests and examinations.

Conduct Expectations

As a McMaster student, you have the right to experience, and the responsibility to demonstrate, respectful and dignified interactions within all of our living, learning and working communities. These expectations are described in the Code of Student Rights & Responsibilities (the "Code"). All students share the responsibility of maintaining a positive environment for the academic and personal growth of all McMaster community members, **whether in person or online**.

It is essential that students be mindful of their interactions online, as the Code remains in effect in virtual learning environments. The Code applies to any interactions that adversely affect, disrupt, or interfere with reasonable participation in University activities. Student disruptions or behaviours that interfere with university functions on online platforms (e.g. use of Avenue 2 Learn, WebEx or Zoom for delivery), will be taken very seriously and will be investigated. Outcomes may include restriction or removal of the involved students' access to these platforms

Academic Accommodation of Students with Disabilities

Students with disabilities who require academic accommodation must contact Student Accessibility Services (SAS) at 905-525-9140 ext. 28652 or sas@mcmaster.ca to make arrangements with a Program Coordinator. For further information, consult McMaster University's Academic Accommodation of Students with Disabilities policy.

Faculty of Social Sciences E-mail Communication Policy

Effective September 1, 2010, it is the policy of the Faculty of Social Sciences that all e-mail communication sent from students to instructors (including TAs), and from students to staff, must originate from the student's own McMaster University e-mail account. This policy protects confidentiality and confirms the identity of the student. It is the student's responsibility to ensure that communication is sent to the university from a McMaster account. If an instructor becomes aware that a communication has come from an alternate address, the instructor may not reply at his or her discretion.

Course Modification

The instructor and university reserve the right to modify elements of the course during the term. The university may change the dates and deadlines for any or all courses in extreme circumstances. If either type of modification becomes necessary, reasonable notice and communication with the students will be given with explanation and the opportunity to comment on changes. It is the responsibility of the student to check

his/her McMaster email and course websites weekly during the term and to note any changes.

Extreme Circumstances
The University reserves the right to change the dates and deadlines for any or all courses in extreme circumstances (e.g., severe weather, labour disruptions, etc.). Changes will be communicated through regular McMaster communication channels, such as McMaster Daily News, A2L and/or McMaster email.