

AP/PPAS 3330 6.00 Statistics for Social Sciences (Section A)**(Cross-listed as AP/POLS 3300 6.00 and AP/SOCI 3030 6.00)
2022-2023****This Class Will Be Delivered Completely Online Using a Mix of Pre-Recorded Lectures and Live In-Person Seminar Groups Conducted via Zoom. Participation in Seminar Groups is Required and Will Form the Basis of 20% of the Final Grade****Course Information**

Instructor	Telephone	Email	WWW	One-on-One Help
Prof. Daniel Cohn, Ph.D.	(416)736-2100 x77276 This is my campus office Voice Mail, I check it once a day Monday to Friday	dcohn@yorku.ca	dcohn.info.yorku.ca	By Appointment via the Telephone or Zoom during my office hours: TBA

To make an appointment for (One-on-One Help): Email me a request including your name, your student number, a brief explanation (e.g. “problem accessing readings for week 2”, “I want to discuss my grade on assignment 1”, “I need help with my essay”, etc.). Also, please include a backup telephone number I can call you at in case Zoom crashes. I will then send you a zoom link for our meeting. If you are unable to speak during my office hours and need to speak at a different time, I will do his best to accommodate you, but cannot promise to do so.

Teaching Components	Time	Method of Delivery
Lectures	Pre-recorded and available one week in advance of each week’s seminar groups	Available via a link placed on the course E-Class site
Seminar Groups	Monday 19:00 – 20:00 and 20:30 to 21:30	Live via Zoom

Land Acknowledgment

York University recognizes that many Indigenous Nations have longstanding relationships with the territories upon which York University campuses are located that precede the establishment of York University. York University acknowledges its presence on the traditional territory of many Indigenous Nations. The area known as Tkaronto has been care taken by the Anishinabek Nation, the Haudenosaunee Confederacy, and the Huron-Wendat. It is now home to many First Nation, Inuit, and Métis communities. We acknowledge the current treaty holders, the Mississaugas of the Credit First Nation. This territory is subject of the Dish with One Spoon Wampum Belt Covenant, an agreement to peaceably share and care for the Great Lakes region ([LA&PS Land Acknowledgement](#)).

Course Overview

Course Description

This course provides a basic understanding of the statistical reasoning and fundamental statistical techniques frequently used to analyze social data. It introduces students to the uses of computers and statistics in the social sciences. It helps develop necessary critical skills to evaluate empirical research. Please Note: There are many courses that are “course credit exclusions” for this class. In other words, classes that if you have taken for credit, bar you from earning credit for this on and vice-versa. A complete list of these can be found in [York University’s Online Listing for Courses](#).

Course Learning Objectives

In ordinary language, the aim is to provide students a basic understanding of social research and statistics and the necessary foundational knowledge so that they will:

- 1.) Be knowledgeable about research ethics and be aware of which projects require ethical review
- 2.) Be familiar with, and able to conduct a basic statistical analysis, generate simple tables and graphs, using the SPSS Software Program
- 3.) Understand the different strengths and weaknesses of both quantitative and qualitative approaches to research, and are able to select an approach most appropriate to the problem or question being investigated.
- 4.) Be able to design and conduct a simple research project using statistical methods
- 5.) Know enough about the statistical approach to social research, that they will be able to learn more advanced skills via independent study with the advice of a faculty member or other experienced researcher, or be well enough prepared to take more advanced classes
- 6.) Be an “educated consumer” of research published in social science journals and books (be able to understand what the authors did and claim to have found out, evaluate their methods and work, and be able to employ it as evidence in the student’s own essays and reports).

Course Format and Organization

This course is taught through a combination of weekly pre-recorded lectures and live online seminar groups which will take place on Monday evenings from 19:00 – 20:00 and 20:30 – 21:30.

Please note, participation in seminar groups is required and will be graded.

Near the end of the summer you will be contacted by email and asked to choose your preferred seminar group time. I will do my best to assign each of you to the group which you have indicated that you prefer. However, as it is impossible to conduct an effective seminar with more than 25 people, it is sometimes impossible to place everyone in the group that they prefer.

For most weeks in the course there are required readings. It is STRONGLY recommended that you do the readings prior to watching the weekly pre-recorded lecture and use both to prepare yourself so as to participate effectively in the weekly seminar group.

Prior to most weekly seminars (usually at the end of the one before) I will give you some questions that you might wish to think about while doing the readings and watching the pre-recorded lecture. As well, especially in the second term, we might also use some of the seminar time to consider some puzzles, problems etc., involving statistics that are either drawn from the textbook readings or other sources.

Technical Requirements

Although it is technically possible to do this class using the laboratory computers made available to students on the York University campus, students will definitely find it much easier to succeed, if they have a decent computer of their own at home and access at home to a reasonably high quality internet connection.

As well as needing the computer and decent internet access to participate in our weekly live online seminar groups, you will also find it helpful for doing the quantitative (statistical) assignments in the second half of the course (January – April) when we will be learning how to do statistical analysis using a software program called SPSS.

SPSS is a program that is widely used to conduct statistical research in academic, business and government settings. As a York University student, you have access to a cloud based version of the program free of charge through “my apps” ([Applications Available on MyApps | University Information Technology \(UIT\) \(yorku.ca\)](#)) or you can pay an annual license fee which runs from September 1 – August 31 and download a copy to your own computer and run it locally ([Discounted Software | University Information Technology \(UIT\) \(yorku.ca\)](#)).

IF YOU DO WISH TO BUY THE LICENCE VERSION DO NOT DO SO UNTIL AFTER SEPTEMBER 1 to ENSURE YOU HAVE THE 2022-23 VERSION, OTHERWISE IT COULD EXPIRE BEFORE YOU EVEN GET TO USE IT!

If you choose to use the “My Apps” cloud based service, the first time you log onto the cloud server you will be asked to install a small program on your computer called “Apps Now Cloud Paging Player”. After that, you will just have to open the “Cloud Paging Player” and click on SPSS to use it (if you have not logged on to Passport York, you might be asked to).

Most people are better off saving some money and using the cloud based version of the software. The annual license fee for SPSS is very expensive and I don’t recommend you buy one unless you have to. To use the cloud based version you have to have a reasonable high-speed internet connection (I have 50 MB service and that seems to work okay) that you don’t share with too many people while doing your homework. You also need to be able to accept that every now and then stuff happens (for example the

University I/T folks like to do maintenance on long weekends so the program might not be available for a few hours here or there). If these things are problems for you, then you might be better off forking out the money for an annual license.

One final note, although SPSS comes in both Windows and Apple versions, York University's support for the Apple version is not as strong as for the Windows version. If you run into trouble with the Apple version you might have to seek help from Apple's support people or those at IBM (the firm that makes SPSS).

Using Zoom

Please note the following:

- Zoom is hosted on servers in the United States and Canada. Recordings done since May 1, 2022 are stored in Canada. For more information, please refer to the notes on [Zoom Privacy and Security](#) provided by Information Security at York.
- If you have privacy concerns about your data, provide only your first name or a nickname 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 computing information, resources, and help:

- [Student Guide to eClass](#)
- [Zoom@YorkU Best Practices](#)
- [Zoom@YorkU User Reference Guide](#)
- [University Information Technology \(UIT\) Student Services](#)
- [Student Guide to eLearning at York University](#)

To determine Internet connection and speed, there are online tests, such as [Speedtest](#), that can be run. If you need technical assistance, please consult the [University Information Technology \(UIT\) Student Services](#) web page. For more specific assistance, please write to askit@yorku.ca.

Course Communication Plan and Office Hours

I check my voicemail and email daily (Monday – Friday) and try my best to answer messages within 24 hours or the next business day. I do not check my voice mail or email on the weekends and messages received Friday afternoons might not be replied to until Monday morning. Please follow the instructions noted above if you wish to make an appointment for one – on – one help. As noted above, if you cannot speak with me during my office hours, I will do my best to find a time when we can speak at a different time, however, I cannot guarantee this will be possible.

Course Expectations

YOU MUST COMPLETE ALL ASSIGNMENTS AND EXAMS TO RECEIVE A GRADE FOR THIS COURSE. STUDENTS WHO HAVE A LEGITIMATE REASON FOR HAVING WORK OUTSTANDING AT THE END OF THE COURSE WILL BE GRANTED EXTENSIONS TO THE YEAR END DEADLINES AND, IF NEED BE, DEFERRED STANDING TO THE LIMITS ALLOWED BY THE UNIVERSITY'S REGULATIONS. HOWEVER, THE REQUIREMENT TO COMPLETE ALL WORK WILL ONLY BE WAIVED IN THE MOST EXTREME AND DIRE CIRCUMSTANCES.

Course Evaluation

Assessment	Due Date	Weight %
Research Ethics & Theory Assignment	October 17, 2022	10
Research Design Assignment	December 5, 2022	10
Descriptive Statistics Assignment	February 27, 2023	15
Inferential Statistics Assignment	April 10, 2023	15
Final Take-Home Exam	April 17 – April 24, 2023	30
Seminar Group Participation	Throughout the Year	20
		100%

Submitting Assignments

All four assignments and the take home exam will be submitted electronically via our course e-class site.

Late Work Policy

Late assignments and take-home exams will be assessed a penalty of 1/10th the marks available per day (weekends count as one day). This penalty will be waived if you have a compelling reason for being late, such as a serious illness or the need to care for a sick dependent. Requests for extensions or for the waiving of late penalties must be

appropriately documented with medical notes, etc. Please let me know as soon as possible if you cannot make a deadline and are going to be late.

Grading

The grading scheme for this course conforms to the 9-point system used in undergraduate programs at York University. For a full description of the York grading system, visit the York University [Academic Calendar](#).

GRADE	GRADE POINT	PERCENT RANGE	DESCRIPTION
A+	9	90-100	Exceptional
A	8	80-89	Excellent
B+	7	75-79	Very Good
B	6	70-74	Good
C+	5	65-69	Competent
C	4	60-64	Fairly Competent
D+	3	55-59	Passing
D	2	50-54	Marginally Passing
E	1	(marginally below 50%)	Marginally Failing
F	0	(below 50%)	Failing

Academic Integrity

All students in the course are strongly encouraged to familiarize themselves with the seven modules of [The Academic Integrity Tutorial](#). Please note: It is your responsibility to be aware of [The University's Academic Honesty Policy](#), as well as its other policies governing student conduct and to ensure that your work is done in conformity with the best standards of academic behaviour. I am required by the regulations of the University to report ALL suspected violations of the Academic Honesty Policy. I am more than happy to answer any questions you might have about academic integrity and to assist you, but it is up to you to make sure you do not cheat. Sounds silly. Yes it is. However, over the years I have found that most violations of these policies are simply accidental and not deliberate. By taking the time to review

the modules of the tutorial, you will be taking a big step towards ensuring you do not inadvertently get yourself into trouble.

Course Schedule: Weekly Readings and Activities

Required Textbooks

Research methods books tend to be even more expensive than other textbooks. To save money, wherever possible I have asked the bookstore to order electronic copies of the required books we will be using. In most cases you can save money by “renting” access to the electronic copies of the books rather than buying hard copies.

- Berdahl, Loleen, and Jason Roy. 2021. *Explorations: Conducting Empirical Research in Canadian Political Science, fourth edition*. Toronto: Oxford University Press. Note: We will be using this book throughout the first term and also in the second term after the Winter Break, so you will need to rent it for the entire year.
- Marchant-Shapiro, Theresa. 2015. *Statistics for Political Analysis*. Los Angeles: Sage/CQ Press. Note: We will not be using this book until January.
- Other readings and data sources will be made available electronically via the York University Library, the internet, or the class E-Class Website.

Course Schedule

Part 1: Thinking about Research and Research Ethics

September 12: Why are we here: Using quantitative evidence to describe, predict and explain

- No Required Reading

September 19: Thinking about public affairs and research on politics, the state and public policy

- Berdahl and Roy Chapters 1 and 2

September 26: Research ethics

- Berdahl and Roy Chapter 3
- Tri-Council Panel on Research Ethics. 2018. Tri-Council Policy Statement 2: Ethical Conduct for Research Involving Humans, Introduction and Chapter 1. https://ethics.gc.ca/eng/policy-politique_tcps2-eptc2_2018.html

- York University Policy on Research Involving Human Participants
<https://www.yorku.ca/secretariat/policies/policies/ethics-review-process-for-research-involving-human-participants-policy/>

October 3: Moving from a research idea to a research project: Theory, concepts and measures (or observations)

- Berdahl and Roy Chapter 4

October 10: FALL READING BREAK NO CLASS

Part II: Research Design

October 17: Understanding where data comes from: Populations, sampling and probability (**Assignment 1 Due**)

- Berdahl and Roy Chapter 5

October 24: Researching with documents and texts (quantitative vs. qualitative strategies)

- Berdahl and Roy Chapter 6

October 31: Human participant research: Interviews, focus groups and observational research (Small N and/or qualitative)

- Berdahl and Roy Chapter 7

November 7: Human participant research: Surveys and secondary analysis (Large N and/or quantitative)

- Berdahl and Roy Chapter 8

November 14: Human participant research: Experiments AND Getting Started with SPSS: Installing the program or gaining access to the cloud-based version

- Berdahl and Roy Chapter 9

November 21: The Small N Comparative Method, and Comparative Politics, Public Policy and Public Administration AND Getting Started with SPSS: Inputting and defining your variables

- Berdahl and Roy Chapter 10

November 28: Analyzing qualitative data AND Getting Started with SPSS: Downloading Datasets for Secondary Analysis from <http://ODESI.ca>

- Berdahl and Roy Chapter 11

December 5: Review of what we have done so far and a brief conversation about comparisons across space or individuals (cross-sectional), time (chronological) or both (panel data and pooled-time data). (Assignment 2 Due)

- No Readings

=====WINTER BREAK=====

Part 3: Getting Started on Quantitative Research and Descriptive Statistics

January 9: Recap from last term some key concepts, Theory, Concepts and Measurement

- Marchant-Shapiro, Chapters 1 and 2
- Supplemental Reading: Berdahl and Roy Chapter 4 relevant sections

January 16: Measures of central tendency

- Marchant-Shapiro Chapter 3
- Supplemental Reading: Berdahl and Roy Chapter 12 relevant portions of following sections:
 - Univariate Statistics: Distribution, Central Tendency, and Dispersion
 - Measures of Central Tendency and Dispersion for Nominal Variables: Mode and the Variation Ratio
 - Measures of Central Tendency and Dispersion for Ordinal Variables: Median and Range
 - Measures of Central Tendency and Dispersion for Interval/Ratio Variables: Mean and the Standard Deviation

January 23: Measures of dispersion

- Marchant-Shapiro Chapter 4
- Supplemental Reading: Berdahl and Roy Chapter 12 relevant portions of following sections:
 - Univariate Statistics: Distribution, Central Tendency, and Dispersion
 - Measures of Central Tendency and Dispersion for Nominal Variables: Mode and the Variation Ratio
 - Measures of Central Tendency and Dispersion for Ordinal Variables: Median and Range
 - Measures of Central Tendency and Dispersion for Interval/Ratio Variables: Mean and the Standard Deviation

January 30: Describing your data with graphs: The “art” of SPSS

- No Readings

February 6: Probability and Normality

- Marchant-Shapiro Chapter 5
- Supplemental Reading: Berdahl and Roy Chapter 13 relevant sections of chapter:
 - Normal Curve,
 - Central Limit Theorem
 - and Statistical Significance

February 13: Comparing our Sample Mean or Proportion to a Population Mean or Proportion, Margin of Error and Confidence Level (the Confidence Interval) for the Mean Scores in a Sample

- Marchant-Shapiro Chapter 6

February 20: WINTER READING BREAK – NO CLASS

Part 4: Inferential Statistics

February 27: Hypothesis Testing about Means with ANOVA (Assignment 3 Due)

- Marchant-Shapiro Chapter 7

March 6: Describing Relationships Graphically X-Y Graphs and Contingency Tables

- Marchant-Shapiro Chapter 8

March 13: What you see vs. what you expect (Chi sq) and Measures of Association

- Marchant-Shapiro Chapters 9 - 10

March 20: Controlling for a third variable

- Marchant-Shapiro 11

March 27: Bivariate ordinary least square (OLS) regression

- Marchant-Shapiro 12

April 3: Multiple OLS regression and some brief remarks about Non-OLS regression models

- Marchant-Shapiro 13

April 10: Final Class and Final Thoughts on Research and Statistics (Assignment 4 Due)

- No Readings

April 17 Final Take-Home Exam Posted Due April 24

Course Policies

All students are expected to familiarize themselves with the following information:

- [Student Rights & Responsibilities](#)
- [Academic Accommodation for Students with Disabilities](#)

Please also review the following course policies:

Accessibility

While all individuals are expected to satisfy the requirements of their program of study and to aspire to achieve excellence, the University recognizes that persons with disabilities may require reasonable accommodation to enable them to perform at their best. The University encourages students with disabilities to register with [Student Accessibility Services](#) to discuss their accommodation needs as early as possible in the term to establish the recommended academic accommodations that will be communicated to Course Directors through their Letter of Accommodation (LOA).

Please let your instructor know as early as possible in the term if you anticipate requiring academic accommodation so that we can discuss how to consider your accommodation needs within the context of this course. Sufficient notice is needed so that reasonable steps for accommodation can be discussed. Accommodations for tests/exams normally require three (3) weeks (or 21 days) before the scheduled test/exam to arrange.

Religious Observance Accommodation

York University is committed to respecting the religious beliefs and practices of all members of the community, and making reasonable and appropriate [accommodations to adherents for observances of special significance](#). Should any of the dates specified in this syllabus for course examinations, tests, or deadlines conflict with a date of religious significance, please contact the instructor within the first three (3) weeks of class. If the date falls within the formal examination periods, you must complete and submit a [Religious Accommodation for Examination Form](#) at least three (3) weeks before the start of the exam period.

Intellectual Property

Course materials are designed for use as part of this particular course at York University and are the intellectual property of the instructor unless otherwise stated. Third-party copyrighted materials (such as book chapters, journal articles, music, videos, etc.) have either been licensed for use in this course or fall under an exception or limitation in Canadian copyright law. Students may not publish, post on an Internet site, sell, or otherwise distribute any course materials or work without the instructor's express permission. Course materials should only be used by students enrolled in this course.

Copying this material for distribution (e.g., uploading material to a commercial third-party website) may lead to a charge of misconduct according to York's [Code of Student](#)

[Rights and Responsibilities](#), the [Senate Policy on Academic Honesty](#), and/or legal consequences for copyright violations.

Student Conduct in the Learning Environment

York University is committed to fostering teaching and learning environments that are free of disruptive and/or harassing behaviour, are physically safe, and conducive to effective teaching and learning. Students and instructors are expected to maintain a professional relationship characterized by courtesy, civility, and mutual respect and to refrain from actions disruptive to such a relationship. Individuals who fail to adhere to such standards and who violate University or public law may be subject to disciplinary action by the University.

For more information, see the policies on [Disruptive and/or Harassing Behaviour in Academic Situations](#), the [Student Conduct and Responsibilities](#), and the [Code of Student Rights & Responsibilities](#).

Netiquette for eClass and Online Learning

Students and instructors have a joint responsibility to create and maintain a welcoming and inclusive learning environment. All students are expected to conduct themselves in accordance with the [Code of Student Rights and Responsibilities](#). Please review and familiarize yourself with behaviours that support “netiquette” in virtual classrooms by consulting the [Guide to Netiquette](#) and [Student Guide to eLearning](#).

Student Notice of Recording for Online Teaching and Learning

Activities for this course involve recording, in partial fulfillment of the course learning outcomes. Images, audio, text/chat messaging that have been recorded may be used and/or made available by the University to students enrolled in the course and those supporting the course for the purpose of materials review, for assessment, etc. Recordings will be managed according to the University’s Common Record Schedule and will be securely destroyed when no longer needed by the University. Your personal information is protected in accordance with York University’s [Guidelines on Access of Information and Protection of Privacy](#) and the [Freedom of Information and Protection of Privacy Act](#). Access to online materials, including recordings or live meetings, is subject to York University’s [Senate Policy on Computing and Information Technology Facilities](#).

The University will use reasonable means to protect the security and confidentiality of the recorded information, but cannot provide a guarantee of such due to factors beyond the University’s control, such as recordings being forwarded, copied, intercepted, circulated, disclosed, or stored without the University’s knowledge or permission, or the introduction of malware into computer system which could potentially damage or disrupt the computer, networks, and security settings. The University is not responsible for connectivity/technical difficulties or loss of data associated with your hardware, software, or Internet connection.

By engaging in course activities that involve recording, you are consenting to the use of your appearance, image, text/chat messaging, and voice and/or likeness in the manner and under the conditions specified herein. In the case of a live stream recording, if you choose not to have your image or audio recorded, you may disable the audio and video functionality. If you choose to participate using a pseudonym instead of your real name, you must disclose the pseudonym to your instructor in advance to facilitate class participation.

You are not permitted to disclose the link to/URL of an event or an event session recording or copies of recording to anyone, for any reason. Recordings are available only to authorized individuals who have been directly provided the above instructions/link for their use. Recordings for personal use, required to facilitate your learning and preparation of personal course/lecture notes, may not be shared with others without the permission of the instructor or event coordinator, and may not be published, posted, linked to, or otherwise made available online, including on social media feeds, even if those feeds are private.

Health and Safety

All York students and instructors share responsibility for the safety and well-being of the community while on York's campuses. Please continue to check [YUBetter Together](#) for the latest information on health and safety.

Student Support and Resources

To help you succeed academically, York University offers a wide range of resources and services. Everything from writing workshops and peer mentorship to wellness support and career guidance is available to fulfill our LA&PS students' needs. Explore the links below to access these on-campus resources:

- [Academic Advising](#) is available to provide students support and guidance in making academic decisions and goals.
- [Student Accessibility Services](#) are available for support and accessibility accommodation when required.
- [Student Counselling, Health & Wellbeing](#) offers workshops, resources, and counselling to support your academic success.
- [Peer-Assisted Study Sessions \(PASS\) Program](#) provides student study sessions for students to collaborate and enhance their understanding of course content in certain courses.
- [Student Numeracy Assistance Centre at Keele \(SNACK\)](#) supports students in courses involving math, stats, and Excel.
- [The Writing Centre](#) provides multiple avenues of writing-based support including drop-in sessions, one-to-one appointments, a Multilingual Studio, and an Accessibility Specialist.
- [ESL Open Learning Centre \(OLC\)](#) supports students with building proficiency in reading, writing, and speaking English.

- [Learning Skills Services](#) provides tips for time management, effective study and learning habits, keeping up with coursework, and other learning-related supports.
- [Learning Commons](#) provides links to supports for time management, writing, study skills, preparing for exams, and other learning-related resources.
- [Roadmap to Student Success](#) provides students with timely and targeted resources to help them achieve academic, personal, and professional success.
- [Office of Student Community Relations \(OSCR\)](#) is responsible for administering the [Code of Student Rights & Responsibilities](#) and provides critical incident support.
- [goSAFE](#) is staffed by York students and can accompany York community members to and from any on-campus location, such as the Village Shuttle pick-up hub, parking lots, bus stops, or residences.

For a full list of academic, wellness, and campus resources visit [Student Support & Resources](#).