

School of Administrative Studies
Faculty of Liberal and Professional Studies

AP/ADMS 2310 3.00
BUSINESS STATISTICS THROUGH APPLICATIONS

Winter 2020
FRIDAY 2:30-5:30 PM, SLH E

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History is not about the past; it is about arguments we have about the past. And because it is about arguments that we have, it is about us.

— Ira Belin

I. Overview: Learning statistics — horror ensues?

Statistics. Maybe one of the words designed for Halloween – it comes with spooky music, can you hear it? Or perhaps it's meant to be the real title for A Nightmare on Elm Street [sorry, Economics, you are the runner-up so you don't get the rose – I heard that's how it's done in "reality"]. I know you are not taking this course to fulfil your childhood dream to be the little girl in The Exorcist [who gave turning the back on someone a new meaning or a new flavour to green pea soup forever, make your pick] or the little boy in Omen [no, please don't will a sheet of window glass flying at me even I am a professor, please]. Well, at least I hope.

I hope with the design of this course I could help put you more at ease with statistics. In general if we are fortunate enough, by the end of the course you will be able to not only understand the numbers you have encountered, produced and visualized but also make good use of your handy work in communicating your ideas. Part debunking and part bungee jumping [more on that later in this outline], the course is not standard introductory statistical fare [there are many excellent standard introductory statistics courses at York so if you are interested in those you would be well served]. This course focuses on making sense of statistics rather than solving something to compute something or proving some equations to come up with more equations. The course is designed to empower you to develop your statistical literacy in your own way as a lifelong learner.

What do we do now? I have to sneak that line in as that's the famous line in the film The Candidate but thankfully we are not in the state of mind of The Candidate as he won the election but lost his

soul and he knew it [we don't want to lose our soul, don't we?]. In contrast, we are here to dispel the hopelessness of at least some students in trying to grabble with introductory statistical education in university. We will start by debunking the myth that learning statistics is _____ [whatever negative/bad/curse word you fancy].

2. Learning Outcomes: We try to get the best available version of the truth from data

In our Winter 2020 course, we will develop our keen awareness of the misuses and abuses of metrics that will empower us in not only understanding the state of play in the world but also using data to make arguments about the state of play in the world. In our course we will create our own business datasets and learn to use Stata (www.stata.com) to explore the datasets. In addition to statistical literacy for self-defence, data visualization is a key learning outcome (as that just might get you your dream job).

3. Course Materials: Read Everyday

Students are required to make good use of the following:

- [Stata/IC](#) [student license for six months for in-class assignments and cap-stone project]
- [Passion-driven Statistics](#) [free Stata cookbook for in-class assignments and cap-stone project]
- [The Art of Statistics](#) [Kindle book for reading diary]
- [Naked Statistics](#) [Kindle book for reading diary]
- [The Growth Delusion](#) [Kindle book for reading diary]

4. Teaching Approach: Seeing is not believing, but let's still see it

In the course, we will learn statistical literacy by doing. We will build our own toy datasets. We will explore it with Stata. We will graph our results with Stata. To contextualize what we do, we will learn to develop the learning habit of reading everyday so we will know what we are really doing.

5. Evaluation: Less is more

The evaluation focuses on basic academic skills that students are expected to learn in university studies – information literacy, critical thinking and effective communication as well as responsibility. All students will be graded and ranked in comparison to their peers. A final grade for the course will be given to each student at the end of the academic year based on the following components.

Reading diary [30%]. Each student is required to use the specially designed MS Excel workbook to “write” a “diary” on a part of the three Kindle books she or he reads each day. The diary will be required to be submitted on demand in class within a specific window only. No out-of-class submission is accepted.

In-class assignments [40%]. Each student is required to perform data analysis in class using Stata and at times other apps for submissions for short assignments each class. The submission will be required to be made in class within a specific window only. No out-of-class submission is accepted.

Cap-stone project [30%]. Students are required to prepare a data analysis project using Stata on an assigned topic to be submitted on a specific data after the end of Winter 2020. No late submission is accepted.

Very specific submission and presentation protocols of work done for the course including formats and deadlines will only be discussed in class as students will be involved in parts of the design of the protocols. For example, all submissions must be sent to taxlaw@yorku.ca, and submissions that don't follow the protocol will normally not be graded. All the submissions must follow the very specific submission protocols. Failure to follow the protocols could lead to failure in the course.

Feedbacks will be embedded weekly in class so students can learn from each other. Tentative marks will be posted on Moodle by the drop date.

6. Tentative Schedule: Learning by Doing

Students are required to bring their laptop with Stata and MS Excel installed for each class as otherwise they won't be able to do the necessary work:

- Jan. 10 & 17: Thinking about data literacy
- Jan. 24 & 31: Developing a data set
- Feb. 7 & 14: Describing the data
- Feb. 28 & Mar. 6: Deciding what to analyze
- Mar. 13 & 20: Analyzing the data
- Mar. 27 & Apr. 3: Communicating the results

I am eager to talk about data analysis all the time. But to make sure that any academic discussion with any student will be shared with all students in the course so all students can benefit from it, please either raise questions in class or email me the questions so I can incorporate your wonderful contributions into the development of our course for all students. I am confident that such an approach are more conducive to learning than, let's say traditional office hours, given the design of the course.

The following is the relevant academic administrative policies and regulations.

RELEVANT UNIVERSITY/LA&PS/SCHOOL REGULATIONS

Applicable to all ADMS and DEMS courses

Deferred Final Exams: Deferred standing may be granted to students who are unable to write their final examination at the scheduled time or to submit their outstanding course work on the last day of classes. Details can be found at <http://myacademicrecord.students.yorku.ca/deferred-standing>

Any request for deferred standing on medical grounds must include an Attending Physician's Statement form; a "Doctor's Note" will not be accepted.

DSA Form: http://www.registrar.yorku.ca/pdf/deferred_standing_agreement.pdf

Attending Physician's Statement form: <http://registrar.yorku.ca/pdf/attending-physicians-statement.pdf>

In order to apply for deferred standing, students must register at

<http://sas-app.laps.yorku.ca>

Followed by handing in a completed original Deferred Standing Agreement (DSA) form and supporting documentation directly to the main office of the School of Administrative Studies (282 Atkinson) and add your ticket number to the DSA form. The DSA and supporting documentation must be submitted no later than five (5) business days from the date of the exam. These requests will be considered on their merit and decisions will be made available by logging into the above-mentioned link. No individualized communication will be sent by the School to the students (no letter or e-mails).

Students with approved DSA will be able to write their deferred examination during the School's deferred examination period. **Deferred exams might take place during the regular exams period or in subsequent weeks depending on the course;** precise dates are known when the Office of the Registrar publishes the final exam schedule of the term. No further extensions of deferred exams shall be granted. The format and covered content of the deferred examination may be different from that of the originally scheduled examination. The deferred exam may be closed book, cumulative and comprehensive and may include all subjects/topics of the textbook whether they have been covered in class or not.

Academic Honesty: The Faculty of Liberal Arts and Professional Studies considers breaches of the Senate Policy on Academic Honesty to be serious matters. The Senate Policy on Academic Honesty is an affirmation and clarification for members of the University of the general obligation to maintain the highest standards of academic honesty. As a clear sense of academic honesty and responsibility is fundamental to good scholarship, the policy recognizes the general responsibility of all faculty members to foster acceptable standards of academic conduct and of the student to be mindful of and abide by such standards. Suspected breaches of academic honesty will be investigated and charges shall be laid if reasonable and probable grounds exist.

Students should review the York Academic Honesty policy for themselves at:

<http://www.yorku.ca/secretariat/policies/document.php?document=69>

Students might also wish to review the interactive on-line Tutorial for students on academic integrity, at:

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

Grading Scheme and Feedback Policy: The grading scheme (i.e. kinds and weights of assignments, essays, exams, etc.) shall be announced, and be available in writing, within the first two weeks of class, and, under normal circumstances, graded feedback worth at least 15% of the final grade for Fall, Winter or Summer Term, and 30% for 'full year' courses offered in the Fall/Winter Term be received by students in all courses prior to the final withdrawal date from a course without receiving a grade, with the following exceptions:

Note: Under unusual and/or unforeseeable circumstances which disrupt the academic norm, instructors are expected to provide grading schemes and academic feedback in the spirit of these regulations, as soon as possible. For more information on the Grading Scheme and Feedback Policy, please

visit: <http://www.yorku.ca/univsec/policies/document.php?document=86>

In-Class Tests and Exams - the 20% Rule: For all Undergraduate courses, except those which regularly meet on Friday evening or on a weekend, tests or exams worth more than 20% will not be held in the two weeks prior to the beginning of the official examination period. For further information on the 20% Rule, please

visit: <http://secretariat-policies.info.yorku.ca/policies/limits-on-the-worth-of-examinations-in-the-final-classes-of-a-term-policy/>

Reappraisals: Students may, with sufficient academic grounds, request that a final grade in a course be reappraised (which may mean the review of specific pieces of tangible work). Non-academic grounds are not relevant for grade reappraisals; in such cases, students are advised to petition to their home Faculty. Students are normally expected to first contact the course director to discuss the grade received and to request that their tangible work be reviewed. Tangible work may include written, graphic, digitized, modeled, video recording or audio recording formats, but not oral work. Students need to be aware that a request for a grade reappraisal may result in the original grade being raised, lowered or confirmed. For reappraisal procedures and information, please visit the Office of the Registrar site at: <http://myacademicrecord.students.yorku.ca/grade-reappraisal-policy>

Accommodation Procedures: LA&PS students who have experienced a misfortune or who are too ill to attend the final examination in an ADMS course should not attempt to do so; they must pursue deferred standing. Other students should contact their home Faculty for information. For further information, please visit: <http://ds.info.yorku.ca/academic-support-accomodations/>

Religious Accommodation: York University is committed to respecting the religious beliefs and practices of all members of the community, and making accommodations for observances of special significance to adherents. For more information on religious accommodation, please visit:

<https://w2prod.sis.yorku.ca/Apps/WebObjects/cdm.woa/wa/regobs>

Academic Accommodation for Students with Disabilities (Senate Policy)

The nature and extent of accommodations shall be consistent with and supportive of the integrity of the curriculum and of the academic standards of programs or courses. Provided that students have given sufficient notice about their accommodation needs, instructors shall take reasonable steps to accommodate these needs in a manner consistent with the guidelines established hereunder. For more information, please visit the Student Accessibility Services (formerly known as Counselling and Disability Services) website at <https://accessibility.students.yorku.ca>

York's disabilities offices and the Registrar's Office work in partnership to support alternate exam and test accommodation services for students with disabilities at the Keele campus. For more information on alternate exams and tests please visit <http://www.yorku.ca/altexams/>

Please alert the Course Director as soon as possible should you require special accommodations.