Econ 2613 - Winter 2022 - Empirical Analysis in Econ and Business I
BAC 142/Online - TR 2:30-4:00

Instructor: Dr. Andrew Davis, andrew.davis@acadiau.ca

Office Hours: 10:30am-noon, Tuesdays and Thursdays, or by appointment, BAC 344.

Course Description: "This course aims to provide an introduction to empirical analysis in Economics and Business making extensive use of Microsoft Excel. Topics include both descriptive and inferential statistics, culminating in hypothesis testing and an introduction to regression analysis."

COVID: Unfortunately, I do not have a crystal ball. There is some non-trivial chance everything changes due to public health decisions, including but not limited to physical classes, grading structures, times and dates, final exams, etc. As of the time of writing this, the plan is to return to in-class instruction January 24th. I reserve the right to change the syllabus in response to changes in the educational environment.

Textbook and Materials:

- Laptop with spreadsheet software of your choice (Excel preferred, required immediately)

- Levine, Stephan, Szabat, Statistics for Managers Using Microsoft Excel (recommended, any edition)

- Levine, Stephan, Szabat, Business Statistics: A First Course (same thing, basically - a few less Excel examples, a few harder examples cut, cheaper)

- Illowsky and Dean, OpenStax Introductory Statistics (optional - not quite as good, but free, follows same chapters)

Topics Covered: This serves as a rough plan of attack for the course. Progression will be determined in part by student interest, amount of discussion, and difficulty.

Text	Topic	Week
-	Introduction to spreadsheets	1
Ch. 2-3	Describing data, visually and numerically	2-3
Ch. 4	Introductory probability	4-5
Ch. 5	Discrete random variables	6-7
Ch. 6	Continuous random variables	8
Ch. 7	Sampling and the central limit theorem	9
Ch. 8	Confidence intervals	10-11
Ch. 9	Classical and Bayesian hypothesis testing; p-values	12-13

The immediate question that follows is why you should care about any of this beyond the fact that it is almost certainly a required course. This is an important question. The overriding goal of the course, from my perspective, can be summarized very simply. Suppose someone outside this classroom places a significant amount of data in front of you and asks you to tell them what to think about it. This course is aimed at giving you the ability to give them a good reply. This is an applied course about manipulating, understanding, analyzing, and presenting real-world data that could plausibly be encountered in a business environment.

You might also say that learning spreadsheet manipulation is a skill in and of itself that's a main goal of this course. I will largely operate in Excel, and please note that you've already paid for a copy of Excel (Acadia pays Microsoft for Office subscriptions for all students, you can access your Excel through your email/Office365). That said, I'll probably show some alternative spreadsheet environments, if just to stress they all look the same.

For those wanting to use online options, the common ones I see are Google Sheets and Apple Numbers. These both work but they can be somewhat finicky. In particular, Apple Numbers does not support all of the statistical functions we'll use this semester. You can of course do them in Numbers, you just might not be able to follow along as easily as you would otherwise.

Grading:

- Tiny Quizzes: 15% (10 @ 1.5%)

- Assignments: 15% (3 @ 5%)

- Midterms: 35% (2 @ 17.5%)

- Final: 35%

Late quizzes not accepted. Late assignments accepted at -1% per day. Missed quizzes, assignments, and midterms will have their weight added to the final exam. At the end of the course, if it's to your advantage, the weight of the lower of your two midterms will be automatically shifted to the final. Further, if your grade on the final exceeds the weighted average, you will receive the final grade directly, to a maximum of an A. An A+ requires exceptional performance through the semester, not just the final.

Note that Acadia has changed grading systems starting in Fall 2019, leaving it up to individual instructors to decide what letter grades mean. I view one of the key roles in a grading system as providing a clear understanding of what you've achieved and accomplished. This means both within Acadia, but also externally. The grade system below is, from my research, the most commonly adopted one in Canada, and hence what I will use for this course.

A+: 90%+	A: 85%-89%	A-: 80%-84%
B+: 77%-79%	B: 73%-76%	B-: 70%-72%
C+: 67%-69%	C: 63%-66%	C-: 60-62%
D+: 57-59%	D: 53-56%	D-: 50-52%
F: ≤50%		

Disabilities and Access: If you are a student with documentation for accommodations who anticipates needing supports or accommodations, please contact Marissa McIsaac, Accessibility Resource Facilitator at 902-585-1520, disability.access@acadiau.ca or Emily Duffett, Accessibility Officer, 902-585-1823, disability.access@acadiau.ca. Accessible Learning Services is located in Rhodes Hall, rooms 111-115.

Academic Honesty: `https://central.acadiau.ca/registrar/faculty_information/academic_integrity`

Technology Policy: This is an extremely technology-driven class, which is consequently open to abuse given the necessity to have a laptop open for almost all classes. I encourage you to consider your peers in your use of technology in terms of their ability to participate, distraction-free, in the class.

Additionally, both the midterms and the final will require use of your computer, but not the internet. Please ensure that you are comfortable working within a spreadsheet without appealing regularly to search engines.

Important Dates:

Jan. 10 - Winter courses begin.
Jan. 20 - Last day to add/change course sections without a W.
Feb. 17 - Midterm 1.
Feb. 21-25 - Winter study break. No classes.
Mar. 4 - Last day to drop fall courses and receive a W.
Mar. 22 - Midterm 3.
Apr. 8 - End of classes.