## ECON 2613 (B1) - Empirical Analysis in Economics and Business

Department of Economics Acadia University Fall 2020

Instructor Dr. Justin Beaudoin

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Office Hours Wed, 10:00 - 11:00; Thu, 1:00 - 2:00 (and by appointment)

Course Website ACORN

Class Location In person: BAC 244; Live stream: Microsoft Teams

Class Times Mon/Wed, 5:30 - 6:50

# 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. Note: Credit cannot be obtained for both Econ 2613 and Math 1213.

# Course Learning Objectives

The material in this course serves as the foundation and a prerequisite for several upper-level elective courses in economics, including ECON 2623: Introduction to Econometrics. A solid understanding of the material in this course is important for further studies in economics, and the skills developed in the course have wide applicability for a variety of careers. By the end of the course, students will have learned the basic analytic skills and techniques that will allow them to be both producers and consumers of quantitative information.

More specifically, upon course completion students are expected to be able to:

- critically evaluate statements that contain quantitative information,
- understand data tables and graphical representations of data,
- produce accurate and understandable summaries of data,
- understand the limitations of available data,
- appreciate the inherent uncertainty of observed data,
- use statistical tools to assist in decision-making, and
- apply statistical reasoning in everyday life.

#### Class Format

This is a "hybrid scheduled" class. There are three ways to access the course meetings:

- 1. Face-to-face (in person) at BAC 244 on Mon/Wed from 5:30 6:50. Though there are a limited number of seats, it appears that every student that wants to attend in person will be able to do so.
- 2. Live stream via Microsoft Teams on Mon/Wed from 5:30 6:50 (to access the class you will need to 'Join' the scheduled meeting during this time)
- 3. Watch the recorded video asynchronously (a link will be posted on ACORN shortly after the class concludes)

It is highly recommended that you use Option 1 or 2 whenever possible. I cannot guarantee the quality/reliability of the recordings, and participating synchronously allows you to better ask questions and to keep pace with the course.

Please note that some classes may be fully online, due to issues such as weather, health, etc. If this is the case, this will be announced in advance of class. Please contact me if there is ever any confusion about the day's plans.

#### Course Materials and Websites

ACORN (https://acorn.acadiau.ca/course/view.php?id=22334) is the primary source for class announcements and will contain all course materials: syllabus, class notes/slides, video recordings, and materials for quizzes, assignments, tests and exams.

Teams is used for live streaming class meetings and for office hours; course material will *not* be stored on Teams.

If there is any confusion about where to locate specific material, feel free to contact me for clarification.

### Technology Issues & Support

If there are any issues with my internet connection, please wait approximately 10 minutes for me to troubleshoot the problem. In the case that the problem persists, I will provide an update to address any necessary adjustments to the schedule (such as providing an additional prerecorded video).

If you are having technological issues, please contact the Service Desk for support. The Consultants will help you work through any issues that you're having. There are several contact methods:

Live Chat: ts-chat.acadiau.ca

HUB Service Portal: hub.acadiau.ca or ts.acadiau.ca

Phone: 902-585-4357 or 1-888-609-3330

Email: helpdesk@acadiau.ca

If the problem causes you to miss a class meeting, please refer to the recorded video link posted on ACORN, and contact me with any questions that you have.

### How to Ask Questions?

I encourage you to ask questions throughout the course. I can promise you that if you have a question, several of your classmates have that same question. There are many ways to ask questions relating to material discussed in class or covered in the prerecorded videos:

- In person during class
- Via Teams during class, using the chat window or by "raising your hand"
- In the discussion forum available on ACORN
- During office hours
- Via email

#### Office Hours

All office hours will be via Teams this semester (until further notice). Please use the Teams link provided for "drop-in meetings" on Wednesdays between 10:00-11:00 and Thursdays from 1:00-2:00. If these times do not work with your schedule or if you would prefer to arrange a one-on-one meeting, please contact me and we can make a separate appointment.

Should any issues or concerns arise throughout the course, you are encouraged to consult with me as soon as possible so that we can work together to find the resources to help you succeed.

#### Textbook

The textbook for the course, which is highly recommended, is:

"Business Statistics: A First Course, 8th Edition", by Levine, Szabat and Stephan, Pearson Education Canada. ISBN: 9780136880974.

Links to purchase the book from the campus bookstore or directly from the publisher are available on ACORN.

Our course will follow the organization of the 8th edition of the textbook fairly closely according to the scheduled outlined below, though previous editions of the textbook are very similar and can be used for the course.

## Economics Help Desk (Tutoring)

The course teaching assistant, Jordan Simon, will be conducting Economics Help Desk sessions every Wednesday and Thursday from 6pm to 8pm, from September 30 - December 10. These sessions will be conducted virtually via Microsoft Teams, and Jordan will be able to work with you on the course material. Please refer to the ACORN link for detailed instructions to access the meetings.

### Quizzes

During the semester, there will be 9 quizzes. The quizzes will be completed on ACORN, and you will have a 3-day window to complete the quiz once it has been posted. Of the 9 quizzes, the 7 highest scores will count towards your final grade. There will be no make-up quizzes offered for any missed quizzes.

# Assignment

We will have one assignment in the course, that will be due by Wed, Dec 9. In 2-4 pages (including tables and graphs), you will be required to make a quantitative argument about a topic of your choosing. Specific instructions will be provided later in the course.

#### Midterm Tests

There will be two midterm tests in the course. Both tests will be conducted online through ACORN. Test 1 will be on Mon, Oct 26 and Test 2 will be on Mon, Nov 23. More details regarding the format and timing of the tests will be provided closer to the test dates.

Practice test(s) and a study guide will be provided prior to the tests to facilitate studying. No make-up tests will be provided; the weight of any missed tests will be reassigned to the weight of the final exam in determining your overall grade for the course. Tests will be open book/notes and will require the use of a laptop with spreadsheet software.

#### Final Exam

The Final Exam will be conducted online through ACORN, on Wed, Dec 16 from 2-5pm. Unless there is a valid reason (approved in advance), students are required to take the exam on the date assigned by the University. The Final Exam will cover the entire course. Practice exam(s) and a study guide will be provided in advance. More details regarding the format and timing of the exam will be provided closer to the exam date. The exam will be open book/notes and will require the use of a laptop with spreadsheet software.

## Grading

Quizzes (7)	20%
Assignment	10%
Midterm Tests (2)	35%
Final Exam	35%

If your score on the Final Exam is higher than your average score on the Midterm Tests, then the weight of the Final Exam will be increased to 52.5% and the weight of the Midterm Tests will be decreased to 17.5%. Additionally, if your grade on the final exam is higher than the average grade on your quizzes, then this 20% for the quiz grade will be shifted to the final exam weight. This reassigning of weights will be done automatically in a manner that maximizes your grade for the course (this adjustment can only increase your overall grade).

The grade scale for the course is below:

Letter Grade	GPA	% Range	Rating
A+	4.33	90 - $100%$	
A	4.0	85 - $89%$	Excellent
A-	3.67	80 - $84%$	
B+	3.33	77 - $79%$	
В	3.0	73 - $76%$	$\operatorname{Good}$
B-	2.67	70 - $72%$	
C+	2.33	67 - $69%$	
$\mathbf{C}$	2.0	63 - $66%$	Average
C-	1.67	60 - $62%$	
D+	1.33	57 - $59%$	
D	1.0	53 - $56%$	Pass
D-	0.67	50 - $52%$	
F	0.0	0 - 49%	Failure

# Class Material

The following list outlines the material that we will cover in the course, with the class discussions highlighting the most important topics within each chapter:

- Chapter 1: Defining and Collecting Data
- Chapter 2: Organizing and Visualizing Variables
- Chapter 3: Numerical Descriptive Measures
- Chapter 4: Basic Probability
- Chapter 5: Discrete Probability Distributions
- Chapter 6: The Normal Distribution

- Chapter 7: Sampling Distributions
- Chapter 8: Confidence Interval Estimation
- Chapter 9: Fundamentals of Hypothesis Testing: One-Sample Tests
- Chapter 12: Simple Linear Regression

At various points of the course, prerecorded videos will be posted that you should watch prior to class (i.e. with titles such as "Class 4 - Prerecorded Video (Part 1)", which should be watched *before* Class 4). Recordings of the live meetings will have titles such as "Class 4 - Live Meeting Recording". The class notes will also be posted on ACORN.

#### Class Schedule

The following is a preliminary schedule for the course topics that may be updated as the course proceeds. Readings refer to the textbook and are listed as suggestions to keep you up-to-date with the course; the materials in that day's class may not perfectly coincide with the listed reading. The posted class notes will contain any information about any potential changes to the schedule in advance.

Class #	Date	Notes
		Week 1
1	Mon, Sept 21	Class Introduction & Discussion of Syllabus
2	Wed, Sept 23	Class Introduction
		Week 2 · · · · · · · · · · · · · · · · · ·
3	Mon, Sept 28	Chapter 1
4	Wed, Sept 30	Chapter 2
		Week 3
5	Mon, Oct 5	Chapter 2
6	Wed, Oct 7	Chapter 3
		Week 4
-	Mon, Oct 12	No class (holiday)
7	Wed, Oct 14	Chapter 3
		Week 5 ·····
8	Mon, Oct 19	Chapter 4
9	Wed, Oct 21	Midterm Review

Class #	Date	Notes
		····· Week 6 ·····
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10	Mon, Oct 26	Midterm Test 1
11	Wed, Oct 28	Chapter 4
		$Week 7 \cdots Week 7 \cdots$
12	Mon, Nov 2	Chapter 5
13	Wed, Nov 4	Chapter 6
		Week 8
14	Mon, Nov 9	Chapter 7
-	Wed, Nov 11	No class (holiday)
		$Week 9 \cdots Week 9 \cdots$
15	Mon Nov 16	
15 16	Mon, Nov 16	Chapter 8 Midterm Review
16	Wed, Nov 18	
		····· Week 10 ·····
17	Mon, Nov 23	Midterm Test 2
18	Wed, Nov 25	Chapter 8
		Week 11
19	Mon, Nov 30	Chapter 9
20	Wed, Dec 2	Chapter 9
		Week 12
21	Mon, Dec 7	Chapter 12
22	Wed, Dec 9	Chapter 12; Course Wrap Up; Assignment Due

### **Course Policies**

Course dates/policies are outlined at the beginning of the course and are the student's responsibility; please communicate any issues, concerns or scheduling conflicts well before the relevant deadline so that we can address the issue appropriately. Any requests for regrading must include a written explanation as to why re-grading is appropriate, and the entire quiz/test/exam will be re-graded (so that the overall grade may increase, decrease, or remain the same). This request must be submitted within one week of the date that the quiz/test/exam was returned in class.

Please communicate with me if an illness or other issue will cause you to miss multiple

classes. I ask that students exercise proper classroom etiquette in respect of their classmates and the instructor (both in person and virtually).

# University Policies

Please refer to the following link for the latest University updates and any policy information regarding Covid-19:

https://www2.acadiau.ca/covid-19.html

Please review and adhere to the University's Mask Policy:

https://www2.acadiau.ca/covid-19/mask-policy.html

Please review and adhere to the Student Code of Conduct:

https://www2.acadiau.ca/files/files/COVID-19/StudentCodeofConductBriefing.pdf

You should also review the Student Services Plan:

https://www2.acadiau.ca/files/files/COVID-19/StudentServicesPlanningModel.pdf

#### Accessibility

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.

### **Academic Ethics**

It is the responsibility of students to familiarize themselves with the University's policy on academic ethics. Copying, plagiarism and other academic offenses will not be tolerated. Penalties are severe and may result in suspension from a program/course and expulsion. A complete list of Academic Regulations can be found on the Policies page of the University's website. I strongly recommend that all class members review the sections in the 2020-21 academic calendar dealing with Academic Policy and Regulations. It is a serious offense to engage in academic misconduct.

Last updated: November 24, 2020