# ECON 2613 (FA02) - Empirical Analysis in Economics and Business

Department of Economics Acadia University Fall 2022

Instructor Dr. Justin Beaudoin

Email justin.beaudoin@acadiau.ca

Office Location BAC 346 & Virtual (Microsoft Teams)

Office Hours Wed, 10:00 - 12:00; Thu, 9:00 - 11:00; and by appointment

Course Website https://acorn.acadiau.ca/course/view.php?id=27769

Class Location BAC 239

Class Times Tue/Thu, 11:00 - 12:25

# 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

It is anticipated that the course will be conducted "in person" throughout the semester, and students are expected to be able to attend classes and exams in person. If you are unable

to attend exams in person for a valid reason, you are required to contact me well in advance

so that we can coordinate an alternative arrangement, if necessary.

Classes will not be recorded, though I will save and post my written notes from class, to the

extent possible. These notes will not be a perfect substitute for seeing the material in person.

Course Materials and Websites

ACORN is the primary source for class announcements and will contain all course materials: syllabus, class notes/slides, video recordings, and materials for quizzes, assignments and

exams.

Microsoft Teams will be utilized for office hours and (possibly) for class meetings and review

sessions; 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 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

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:

• In person during class

• Via Teams using the chat feature

• During office hours

• Via email

2

#### Office Hours

I will hold office hours on Wednesdays from 10:00 - 12:00 and Thursdays from 9:00 - 11:00. I am also happy to arrange appointments for other times to meet; you are welcome to send me an email to schedule a time. Office hours may be held in my office or over Teams.

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. The textbook is available at the campus bookstore.

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.

### Quizzes

During the semester, there will be 8 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 8 quizzes, the 6 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 Tue, Dec 6. 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 in person during the regularly scheduled class time. Test 1 will be on Thu, Oct 13 and Test 2 will be on Thu, Nov 17. 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 in person on the date provided by the Registrar. 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 (6)	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).

No extra credit opportunities will be offered.

The grade scale for the course is below:

Letter Grade	$\mathbf{GPA}$	% 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 - $76%$	$\operatorname{Good}$
В-	2.67	70 - $72%$	
C+	2.33	67 - $69%$	
С	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 10: Two-Sample Tests and One-Way ANOVA
- Chapter 12: Simple Linear Regression

The class notes and links to recorded videos 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
		w eek 1
1	Thu, Sept 8	Class Introduction & Discussion of Syllabus
		····· Week 2 ·····
2	Tue, Sept 13	Class Introduction
3	Thu, Sept 15	Chapter 1
		Week 3
4	Tue, Sept 20	Chapter 2
5	Thu, Sept 22	Chapter 2

Class #	Date	Notes
		Week 4
6	Tue, Sept 27	Chapter 3
7	Thu, Sept 29	Chapter 3
		Week 5
8	Tue, Oct 4	Chapter 4
9	Thu, Oct 6	Chapter 4
10	Tue, Oct 11	Midterm Review
11	Thu, Oct 13	Midterm Test 1
12	Tue, Oct 18	Chapter 5
13	Thu, Oct 20	Chapter 6
14	Tuo Oot 25	
14 15	Tue, Oct 25 Thu, Oct 27	Chapter 7 Chapter 8
	,	-
		Week 9
_	Tue, Nov 1	No class (study break)
-	Thu, Nov 3	No class (study break)
		Week 10
16	Tue, Nov 8	Chapter 8
17	Thu, Nov 10	Chapter 9
		Week 11
18	Tue, Nov 15	Midterm Review
19	Thu, Nov 17	Midterm Test 2
		Week 12
20	Tue, Nov 22	Chapter 9
20	Thu, Nov 24	Chapter 10
		•
		Week 10
22	Tue, Nov 29	Chapter 10
23	Thu, Dec 1	Chapter 12

Class #	Date	Notes
		····· Week 14 ·····
24	Tue, Dec 6	Chapter 12; Assignment Due
		Final Exam: Date and location TBA

## **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.

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

## Accessibility

Acadia University is dedicated to improving access to campus life for all students with disabilities. While we attempt to ensure that all courses are accessible, we recognize that there are barriers that need to be addressed on an individual basis. Students who require accommodations to complete coursework or otherwise fully participate in class should contact Accessible Learning Services directly as soon as possible.

Please visit the Accessible Learning Services website (https://www2.acadiau.ca/student-life/accessiblelearning.html) or email them at accessible.learning@acadiau.ca for more information.

## **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 2022-23

academic calendar dealing with Academic Policy and Regulations. It is a serious offense to engage in academic misconduct.

 $Last\ updated \hbox{:}\ August\ 29,\ 2022$