**WINTER 2022 − ECONOMICS 2623 WI01 INTRODUCTION TO ECONOMETRICS**

**TIME:** Tuesdays and Thursdays at 1:00 – 2:30pm **CLASSROOM**: BAC 364

**INSTRUCTOR:** Dr. Burç Kayahan

**OFFICE LOCATION:** BAC340

**OFFICE TEL:** (902) 585 14 92

**EMAIL ADDRESS:** ckayahan@acadiau.ca

**OFFICE HOURS:** Virtualby appointment.

**DELIVERY METHOD:** In person if applicable

**COURSE DESCRIPTION:**

The objective of this course is to provide an introduction to econometric theory and illustrate practical implications of regression analysis in Economics and Business. The first half of the course provides an introduction to the classical linear regression model (CLRM). The second part of the course is concerned with identification and treatment of violations to the assumptions of the CLRM.

**COURSE OBJECTIVES:**

“Econometrics” is a separate field in economics that focuses on measurement issues related to economic models and data. It combines economic theory, statistics, and computer science. What distinguishes econometrics from statistics is the attention to the failure of many standard assumptions, which arises from the nature of economic relationships and the lack of controlled experimentation.

The aim of this course is to introduce the students to the important ideas associated with elementary econometrics. Topics and issues covered in this course will constitute as building blocks for advanced econometrics courses at the graduate programs as well. Throughout the course we will spend a significant amount of time on the classical linear regression model. We will consider how to choose estimation rules consistent with the model under study, on sampling properties of estimators, on inference in the linear regression model, on the computer implementation of the techniques to obtain results from empirical applications, and on examining the validity of assumptions we make. The second half of the course covers fundamental issues for conducting regression analysis in practice such as model selection, consequences of violation of the assumptions associated with the classical linear regression model.

**TEXTBOOK (REQUIRED):**

Damodar N. Gujarati, Essentials of Econometrics, 5th Edition, McGraw-Hill Higher Education, 2021. **Print ISBN:** 9781071850398, **Etext:** [Website](https://us.sagepub.com/en-us/nam/essentials-of-econometrics/book265624)

**EVALUATION:**

Assignments (@ 10% each) **20%**

* Assignment 1: (Chapters 3 and 4) Released on January 21st, due back on February 11th.
* Assignment 2: (Chapters 5, 6 and 7) Released on March 17th, due back on April 7th.

Group Projects (@ 10% each) **20%**

* Group Project 1: Released on January 28th, due back on March 4th.
* Group Project 2: Released on March 10th, due back on April 8th.

Midterm **30%** (Date: March 1st)

Final **30%** (Date: TBA)

If you are unable to write an exam due to illness or for compassionate reasons, the weight of the missed exam will be added towards your final exam.

**ACCESIBLE LEARNING**

**Office:** Rooms 111-115, Rhodes Hall, 21 University Ave, **Website:** <accessiblelearning.acadiau.ca>

Accessible Learning Services works with students, staff, and faculty to facilitate academic accommodations and services for students with disabilities (permanent and temporary). Accommodations are based on the recommendations that are provided in students’ psychoeducational or medical documentation. Accessible Learning Services also provides academic soft-skill development workshops for students, referrals to on-and-off campus resources, employment-readiness skill development and work placements, and educational awareness training. For more information about Accessible Learning Services’ registration process and support services, please contact one of the staff members listed below or visit our website.

**Accessible Learning Services Contact Information (email:** disability.access@acadiau.ca**)**

Marissa McIsaac, MSc; Manager, 902-585-1290

Ian Ford, BSW, MSW, RSW; Accessibility Resource Facilitator, 902-585-1520

Emily Duffett, MA; Coordinator, Work Integrated Learning Program, 902-585-1823

Kate Johnstone; Accessible Learning & Support Advisor, 902-585-1605

Gillian Hastey; Exam Coordinator, 902-585-1823

**REQUIREMENTS:**

I expect my students to attend the classes in a regularly and organized manner. The **first month** is especially crucial in developing a good understanding of statistics and its methodology. Due to the quantitative nature of the course and time limitations, students will be expected to supply out-of class preparation time by solving exercises in order to digest the information provided in the lectures. You can truly understand and enjoy statistics only via solving sufficient number of exercises.

The course website will be available via Acadia Courseware & Online Resource Network (ACORN) at <http://acorn.acadiau.ca>. Make sure to check this site every week for course related materials and announcements that will be available as we progress throughout the course.

**ACADEMIC INTEGRITY:**

It is the responsibility of students to familiarize themselves with the University’s policy on academic integrity. Copying, plagiarism and other academic offences 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 Academic Integrity section of the 2021-22 Academic Calendar (pages 39-40)**. Engaging in**academic misconduct has serious consequences.**

**STATISTICAL SOFTWARE PACKAGE: EVIEWS**

We will use EVIEWS extensively for conducting regression analysis and presenting empirical results of the analysis in this course. Term projects will require use of EVIEWS. **Each group is required to acquire a copy of EVIEWS 12 University Edition (CAD 66.02),** which can be obtained from[**here**](https://estore.onthehub.com/WebStore/OfferingDetails.aspx?o=d4092156-19e0-eb11-813d-000d3af41938). Features of this software will be explained in the labs conducted on Friday afternoons.

**CELL PHONE FREE CLASSROOM:**

For the benefit of everyone, please turn off your cell phone during class time. Cell phones must be turned off and put away during exams. Cell phones may NOT be used as calculators during the exams.

**READING LIST**

*PREFACE*

1. **Nature and Scope of Econometrics,** Chapter 1

*PART I: THE LINEAR REGRESSION MODEL*

1. **Basic Ideas of Linear Regression: The Two -Variable Model**, Chapter 2.
2. **The Two-Variable Model: Hypothesis Testing**, Chapter 3.
3. **Multiple Regression: Estimation and Hypothesis Testing**, Chapter 4**.**
4. **Functional Forms of Regression Models**, Chapter 5.
5. **Dummy Variable Regression Models**,Chapter 6.

*PART II: REGRESSION ANALYSIS IN PRACTICE*

1. **Model Selection: Criteria and Tests**, Chapter 7
2. **Heteroscedasticity**, Chapter 9
3. **Autocorrelation**, Chapter 10