

ECONOMETRICS I, ECON 371:10
Department of Economics
St. Francis Xavier University
Fall 2023

Instructor: Teng Wah LEO

Time Blocks and Location: U7/U8 (Monday, 2:30 pm–3:45 pm; Thursday, 4:00 pm–5:15 pm) at the Annex, AX23A.

Office Hours: Monday, 10 am – 11 am & 1 pm – 2 pm; Thursday, 11:30 am – 12:30 pm & 2:30 pm – 3:30 pm; Friday, 1 pm – 3 pm. All other days and time are by appointment only. Office hours are held at my office, MULH3073.

Objective:

The course is designed to introduce students to the methodology of Econometrics as a whole subfield in Economics dedicated to measurement of both market and social phenomenon/occurrences. The structure of the course is in three facets, 1. Basic Statistical Ideas, 2. Computational Aspect of Econometrics, particularly the use of STATA statistical software, and 3. Intuition behind Econometrics, and its place in Economics. The course will be pitched at the applied level as a first course in Econometrics. Students are nonetheless expected to be proficient in Calculus and basic Statistics. Prerequisites: **MATH 111, MATH 112 & STAT 231.**

The course materials are designed for use in ECON 371 at StFX University by myself only, and are the property of Teng Wah Leo. Copying this material including assignments, assessments and examinations for distribution, online posting, or selling of this material to third parties without permission is subject to Canadian Copyright Law and is strictly prohibited.

Drop-Date:

Students may drop a course, online in Banner, on or before **November 1st, 2023.** After this date students are not permitted to drop courses without permission from their Dean. (Please see 3.1 in academic calendar for policy regarding course drops).

Evaluation:

There will be 4 equally weighted **take-home** tests, each of which will include both theoretical, and applied elements. Each of the take-home tests is worth 15%, for a total of 60% of your final grade. It is recommended that assignments be typed using L^AT_EX. There will be one midterm test on the October 26th 2023, and a final examination, each worth 20%.

Note: All tests and examinations are compulsory. Should you miss an examination/test without an appropriate reason provided prior to the date of the examination/test at the latest, you will be awarded a mark of zero for that examination/test. There is no recourse after the fact.

Equitable Learning: Everyone learns more effectively in a respectful, safe, and equitable learning environment, free from discrimination and harassment. I invite you to work with me to create a classroom space – both real and virtual – that fosters and promotes values of human dignity, equity, non-discrimination, and respect for diversity.

Required Text:

- (JW) Jeffrey M Wooldridge. 2015, *Introductory Econometrics: A Modern Approach*, South-Western College, 6th edition.

Supplementary Reading:

- (CB) Christopher F. Baum. 2006, *An Introduction to Modern Econometrics Using Stata*, Stata Press.

Course Outline:

1. What is Econometrics? (JW Chapter 1) – 1 Week
2. Introduction to Probability Theory & Mathematical Statistics. (Course Notes) – 3 Weeks
3. Estimation & Hypothesis Testing. (Course Notes) – 2 Weeks
4. Gauss Markov Assumptions & Ordinary Least Squares (OLS) Regression. (JW Chapters 2-4) – 2 Weeks
5. OLS Regression & STATA. (Course Notes) – 3 Weeks
6. Estimation Issues with OLS (JW Chapter 6) – 2 Weeks