Econometrics II, ECON 372
Department of Economics
St. Francis Xavier University
Winter 2017

Instructor: Teng Wah LEO

Time Blocks and Location: DP/PD (Tuesday, 12:45 p.m. - 2:05 p.m.; Thursday, 11:15 a.m. - 12:30 p.m.), NH361

Office Hours: Monday & Wednesday from Noon - 4 p.m.

Objective: The course is designed to introduce more Econometric Theory to the Introductory course in Econometrics to provide a basis for the student to utilize more advance econometric techniques. Emphasis will be placed on more in depth technical detail, such as solving for the Ordinary Least Squares solution using Matrix Algebra, which would allow the student to write dedicated computer programs in MATLAB. The rigour is also meant to provide a strong grounding to the student for analyzing problems in empirical work both regarding technical problems and that associated with inference. In addition, there is a discussion of Bayesian Econometric Technics and its relationship to the standard approach discussed thus far. **Prerequisite: ECON 371.**

Evaluation: There will be five equally weighted tests, each of which will include both theoretical, and applied elements. Within these five tests, there will be two tests on econometric theory that will be conducted during class (worth a total of 20% together).

Required Text:

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

Supplementary Reading:

James G MacKinnon and Russell Davidson. 2003, *Econometric Theory and Methods*, Oxford University Press.

Gary Koop. 2003, *Bayesian Econometrics*, Wiley-Interscience, 1st edition.

Course Outline:

1. Matrix Representation of OLS and MATLAB

2. Programming in MATLAB

3. Method of Moments & Maximum Likelihood Estimation

4. Measurement Error Revisited

5. Instrumental Variable Estimation and Two Stage Least Squares

6. A Brief Introduction to Bayesian Techniques

7. Simultaneous Equations Models

8. Limited Dependent Variable

9. Introduction to Time Series Analysis

10. More Time Series Analysis

11. Monte Carlo Experiments (Should time permit.)