# IBEC PHBU 430 Econometrics
## The Dicke College of Business Administration
## Ohio Northern University

**Winter 2009-10**
**Instructor: Kazuhisa Matsuda, Ph.D.**
**Office:** Room 124, Dicke Hall
**Office Hour:** 12:00 – 14:00 & 16:00 – 17:00 on MWRF.
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**Email :** k-matsuda@onu.edu
**Class Schedule**

| Course | Days & Time | Room |
|---|---|---|
| CRN: 21864 Section: 01 | MR 10:00 – 11:50 AM | DI 138 |

## College Mission Statement:

Develop business and civic leaders for a changing world.

## Course Objectives:

Econometrics plays important roles in very diverse disciplines such as economics, accounting, finance, marketing, management, history, political economy, and sociology. Knowledge of econometrics allows students to practice economics in the real world instead of just studying economics. This course opens a door for students to conduct and critique empirical studies in the business world.

This course is built as a first course in undergraduate econometrics and designed to provide practical knowledge to analyze data using numerous case studies in the field of economics, finance, and business. Students will learn how to use econometrics in order to describe the real-world economic phenomena, test hypotheses about economic theory, and forecast future economic activity. This course will not focus on the mathematics of econometrics which will be introduced only if it is necessary. The primary emphasis of the course will be:

- ✓ Understand the theoretical foundations of the classic linear regression model
- ✓ Estimate the parameters of the classic linear regression model.
- ✓ Conduct hypothesis tests and accurately interpret the results.

In terms of statistical software package, this course requires the use of SAS which is available to all ONU students and probably the industry standard package. The knowledge of SAS will greatly advance your marketability on the job market.
This course covers the best of contemporary applied econometrics topics:

- ✓ Instrumental variables regression.

- ✓ Program evaluation.
- ✓ Forecasting.
- ✓ Time series regression.

## Prerequisites:

- ✓ BIZ203 (IBEC203)
- ✓ A calculus course: MATH 145 or 154 or 163
- ✓ A statistics course: STAT 142 or 146 or 156

## Required Text:

Title:   Introduction to Econometrics, 2/E
Author:   James H. Stock & Mark W. Watson
Publisher:   Addison-Wesley
ISBN-10:      0321278879
ISBN-13: 9780321278876

*This textbook is adopted by Harvard University, Harvard's Kennedy School of Government, and Princeton University.

## Course Grades:

In terms of exams, you will have one midterm exam and one final exam. Other components of your grade include series of assignments, team paper, positive contribution to the class, and the attendance.

Grade Component

|  | Date | Time | Weight | Cumulative |
|---|---|---|---|---|
| Midterm Exam | January 7 2010 Thursday | 110 m | 32% | Yes |
| Others |  |  | 36% |  |
| Final Exam | Feb/22/Mon/8:00-10:00 AM | 120 m | 32% | Yes |

*I expect regular class attendance and positive contribution to the class throughout the semester in compliance with ONU Catalog.
*These are just plans. These plans are subject to change by the discretion of the instructor.

Grading Scale:
A  = 90-100
B  = 80-89
C  = 70-79
D  = 60-69
F  = 59 and below

CBA Policy: Messy or poor quality written work containing numerous errors in grammar, syntax, spelling, typos, etc. will receive substantially lower points. The instructor reserves the right to give an "F" for an assignment with excessive typos/mechanical errors/spelling errors.

## Website:

- Visit http://www.maxmatsuda.com
- You can obtain all course materials at this website.

## Team Works:
- Wall Street Journal Quiz
- Wall Street Journal article presentation
- Research Paper
- Chapter-end questions
- Stock trading game

## Make-up Exam Policy:

Make-up exams will be allowed only in extenuating circumstances. Every effort should be made to take the test as scheduled. All make-ups must have the instructor's approval.

## Disabilities:

Students requiring particular accommodations because of physical and/or learning disabilities should contact their Dean's office prior to the end of the first week of classes. That Dean's office is then required to make contact with your instructor. If you have any questions, please feel free to speak with me.

## Academic Honesty:

Academic policies as stated in the student code will be strictly enforced. (See Appendix C, Code of Student Academic Conduct, of the Student Code of Conduct.)

## Course Outline & Required Readings:

**Part 1: Introduction & Review**
Chapter 1: Economic Questions & Data
Chapter 2: Review of Probability
Chapter 3: Review of Statistics

**Part 2: Fundamentals of Regression Analysis**
Chapter 4: Linear Regression with One Regressor
Chapter 5: Regression with a Single Regressor: Hypothesis Tests and Confidence Intervals

Chapter 6: Linear Regression with Multiple Regressors
Chapter 7: Hypothesis Tests and Confidence Intervals in Multiple Regression

**Part 3: Further Topics in Regression Analysis**
Chapter 10: Regression with Panel Data
Chapter 11: Regression with a Binary Dependent Variable
Chapter 12: Instrumental Variables Regression
Chapter 13: Experiments & Quasi-Experiments

**Part 4: Regression Analysis of Economic Time Series Data**
Chapter 14: Introduction to Time Series Regression & Forecasting

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