

ECO375: Introduction to Econometrics
Fall, 2019
(Monday/Wednesday 1:30-3:00, DePaul Center Room 5901)
updated: 07/20/2019

INSTRUCTOR: Jin Man Lee

Office: Loop Campus (1 E Jackson DPC Room #6230)

Phone: (312)362-5970, Email: jlee141@depaul.edu

The best way to reach me is to send email. Please use ECO375 as a prefix on the subject line, and that will get my attention immediately. If you don't receive my reply within 24 hours, please remind me again. Due to many email filters and mass email, your email might be lost.

OFFICE HOURS: Monday & Wednesday 3:30-4:30, Tuesday 3:30-4:30 or by appointment (at DPC 6230)

COURSE OBJECTIVES

This class is designed to concentrate the quantitative analysis using mathematics, statistics, and regression analysis. First, we will briefly discuss about statistical concepts related with population and samples, descriptive statistics, distributions, and inference and hypothesis tests. We will spend most of the quarter on regression analysis; identify when regression analysis is the appropriate tool, what regressions reveal (and what they don't), how regression analysis can be adapted to problems that initially looked impossible, and how to tell if regression analysis is misused. We will examine the assumptions underlying regression analysis and the consequences when these assumptions are violated. There will be two exams in class, homework, and computer exercises using STATA. We will use current and historical data to analyze various economic and business situations.

REQUIRED TEXTBOOK

Jeffery Wooldridge, Introductory Econometrics: A Modern Approach, 5th or later Edition, South-Western, Cengage Learning.

SUPPLEMENTARY MATERIAL

Along with the textbook and my lecture notes, I will assign mandatory readings of academic articles. The readings are available for download in PDF format from D2L.

SOFTWARE USED in CLASS (required for homework and lab classes)

This course will also use the statistical package, STATA. STATA is available on all computers in all computer labs. However, if you would like to have a copy on your computer, you can purchase STATA/IC a 6 (12) month license for \$75 (\$125) from <http://www.stata.com/coursegp>. Minimum required STATA is STATA/IC since Small STATA might not work for some class data due to the limitation of number of variables.

GRADE

Exam I (20%), Exam II (25%), Final Project (25%), Computer LAB Assignment (5%), Homework (25%), Extra credit Pop-up Quizzes(5%),

Scale of grade: A: 93 or above, A-: 88-92.9, B+: 85-87.9, B: 80-84.9, B-: 77-79.9, C+: 75-76.9, C: 70-74.9, C-: 68-69.9, D+: 65-67.9, D: 60-64.9, F: Below 60

EXAMS AND FINAL PROJECT SCHEDULE

- Exam I (WEEK 5)
- Exam II (WEEK 8)
- Final Project (Written report submission to D2L on November 23 (Saturday) at 10:00 PM.)

ASSIGNMENTS

- Lab Assignments: All assigned work needs to be uploaded to D2L. If the work cannot be done in the lab class, one more revised version can be uploaded after class.
- Homework: Problem set will be posted in D2L and collected before class. Only in-class submission will be allowed.
 - All assignments are to be prepared individually unless otherwise stated by me. You risk an academic integrity violation if submit the same work and answers with others. Group study is encouraged but not the submission of homework.
 - Assignments are graded based on completion. Failure to answer any questions or nonsensical attempts at answering questions will result in an incomplete assignment.
 - No Late submission will be allowed since we will discuss about the homework in class. Only limited exception will be granted due to emergency and extraordinary circumstance proved by appropriate document.
- Popup Quizzes: We will have extra credit popup quizzes in class. All require to submit the answers or sign-up sheet before leaving class.

COMPUTER LABS PLAN (Room #)

We will have the following four computer lab classes at PC classroom.

- Computer Lab 1 (Sep 18) STATA for Statistics
- Computer Lab 2 (Oct 2) STATA for Regression Analysis I
- Computer Lab 3 (Oct 23) STATA for Regression Analysis II
- Computer Lab 4 (Nov 13) Regression Model Design
- Computer Lab 5 (Nov 18) Final Project Presentation

ACADEMIC HONESTY

Work done for this course must adhere to the University Academic Integrity Policy. Violations include but are not limited to the following categories: cheating; plagiarism; fabrication and academic misconduct.

- Cheating: any action that violates University norms or an instructor's guidelines for the preparation and submission of assignments. Such actions may include using or providing unauthorized assistance or materials on course assignments, or possessing unauthorized materials during an examination.

- **Plagiarism:** the representation of another's work as your own. You are to prepare your own homework assignments. Violations may result in the failure of the assignment, failure of the course, and/or additional disciplinary actions.
- **Misconduct:** This includes but is not limited to attempts to bribe an instructor for academic advantage; persistent hostile treatment of, or any act or threat of violence against, an instructor, advisor or other students. Violations may result in additional disciplinary actions by other university officials and possible civil or criminal prosecution.

You may review the Academic Integrity Policy in the Student Handbook or by visiting Academic Integrity at DePaul University (<http://academicintegrity.depaul.edu>)

ATTENDANCE POLICY

I do not take attendance. The attendance will be automatically checked by in-class quizzes if needed. Excuses on exam days may be considered under extraordinary circumstances provided by official documentation.

CLASSROOM RULES & PROFESSIONAL POINTS

- **Prohibitions:** Cell phones must be turned OFF. Use of the internet is not permitted unless specifically directed by me. This includes checking of email and use of instant messengers. You must sit at the front of the classroom if you are using a computer. Tape recorders, unrelated reading materials, and food are also prohibited in the classroom.
- **Behavior:** You may not leave the classroom for any reason during an exam. If you need to leave class early, let me know in advance.
- For first time violations you will receive a warning. In the event that violations continue, I will ask you to leave the classroom. (I reserve the right to add to this list as situations arise.)

Student with Disability: Students with Disability may register the The Productive Learning Strategies (PLuS) Program. You may request your exam schedule arrangement by requesting through the PLuS program. For more information on the PLuS program, you may visit <http://studentaffairs.depaul.edu/plus/> or call: 312-362-8000.

TENTATIVE SCHEDULE OF TOPICS

(The instructor may change the order or contents by needs, any special material needs for class will be available on D2L)

- WEEK 1, Statistics Review
 - Descriptive Statistics
 - Population and Sample Distribution
- WEEK 2, Correlation to Causality
 - Two variable Relationship
 - Simple Regression Analysis (CH 2)
 - **COMPUTER LAB 1 (Sep 18)**
- WEEK 3, Regression Analysis
 - Multiple Regression Model (CH3)
 - **PROBLEM SET 1 due**
- WEEK 4, Multiple Regression Model (CH 4)
 - Estimation and Inference
 - Regression Specification (Irrelevant, Omitted, Multicollinearity)
 - **COMPUTER LAB 2 (Oct 2)**
 - **PROBLEM SET 2 due**
- WEEK 5, EXAM I (Ch 1 - 4)
 - Review of Statistics and Regression Models
- WEEK 6, Further Topics on Multiple Regression
 - Functional Forms (CH 6)
 - Dummy Variables (CH 7)
- WEEK 7, Regression Diagnostic Tests
 - Heteroskedasticity (CH 8)
 - **COMPUTER LAB 3 (Oct 23)**
 - **PROBLEM SET 3 due**
- WEEK 8, EXAM II (Ch 4,6,7,8,10)
 - Issues on Time Series Analysis (CH 10)
- WEEK 9, Special Topics on Regression Model
 - Linear Probability Model and Logistic Regression Models (CH 17)
 - **PROBLEM SET 4 due**
- WEEK 10, Regression Analysis Project
 - **COMPUTER LAB 4 (Nov 13)** Regression Model Design
 - **COMPUTER LAB 5 (Nov 18)** Regression Project Proposal
 - **PROBLEM SET 5 due (Nov 13)** Powerpoint slides for presentation
- FINAL PROJECT DUE
Written report submission to D2L by **November 27(Wednesday) at 10:00 PM**