



National Taiwan University of Science and Technology

2016 Summer Program

ECON 203 Business Statistics

Course Outline

Course Code: ECON 203

Instructor: Byung-Joo Lee

Home Institution: Notre Dame University, Notre Dame, IN 46556 U.S.A

Office Hours: TBA and by appointment

Email: bjleend@gmail.com

Class Hours: According to the regulations of Minister of Education, R.O.C, 18 class hours could be counted as 1 academic credit in all universities in Taiwan. This course will have 72 class hours, including 40 lecture hours, professor 10 office hours, 10-hour TA discussion sessions, 2-hour review sessions, 10-hour extra classes.

Course Description:

This course introduces basic statistical concept applied to the economics data analysis. This course emphasizes the understanding of statistics and how statistics are used in the business problems. Modern business analysis requires rigorous statistical analysis to draw meaningful business conclusions. We will use economic examples to introduce statistical techniques.

This course is comprised of 3 sessions of 120 minutes each per week for 5 weeks. This course is very intensive and covers course content equivalent to one regular semester class in U.S. colleges.

We will use Microsoft Excel to do various statistical analyses. Microsoft Excel is designed for spreadsheet program, but it also has good statistical data analysis functions. I will teach various Excel functions in class for the statistical analysis.



Textbook:

1. Anderson, Sweeney and Williams, Essentials of Statistics for Business and Economics, 6th ed., SOUTH-WESTERN: CENGAGE Learning, 2012
2. Lecture slides will be posted in the Box.com.

Prerequisite:

1. Principles of Microeconomics and Principles of Macroeconomics, or equivalents.

Attendance:

Students should attend class regularly, arrive on time and not leave early. While you are in class, show the proper respect to your instructor and to your classmates. When you must miss a class, it is your responsibility to get the class material from me or your classmates. Class attendance will be checked regularly. In the event of extended absence, students should report to instructor and/or academic dean for approval. Excessive absence may result in the course grade of "F".

Grading:

There will be one midterm exam and one final exam, 40% each. Exams test basic statistical theory and empirical applications. Homework accounts for the remaining 20% for the course grade.

Academic Honor Code:

The Code of Honor will be strictly applied. Honor Code pledges "I will not participate in or tolerate academic dishonesty." Students will not give or receive aid on exams. This includes, but is not limited to, viewing the exams of others, sharing answers with others, and using books or notes while taking the exam. You can collaborate to study your homework, but you have to submit your own completed homework to receive appropriate credit. Copying solutions from others, whether they are current or past, constitutes plagiarism.



Computer Program:

We will use Microsoft Excel to do various statistical analyses. Microsoft Excel is designed for spreadsheet program, but it also has good statistical data analysis functions. I will teach various Excel functions in class for the statistical analysis. Microsoft Office Excel and Power Points are required for the class.

Professor Byung-Joo Lee earned his economics Master's and Ph.D. degrees from the University of Wisconsin-Madison. He also earned economics Master's degree from the Pennsylvania State University at State College. He earned his bachelor's degree from the Seoul National University, Seoul, South Korea. He is currently teaching at the University of Notre Dame. He previously taught at the University of Colorado-Boulder. He was the President and the President-elect of the Korea America Economic Association (KAEA) in 2011-2012.

His teaching and research area in economics is econometric analysis and international finance. He has written extensively on theoretical and applied econometrics subjects. Among his contributions are *Econometrica* (1992), *Economics Letters* (1994), *Journal of Quantitative Economics* (1994), and *Oxford Bulletin of Economics and Statistics*, (2000). Recently, his research focuses on the international finance. His recent publications are in *The Journal of Korean Economy* (2003), *Journal of International Finance* (2010), *Pacific Economic Review* (2011), *Review of International Economics* (2011), and *International Review of Economics and Finance* (2012).

Tentative Course Schedule

The course outline is tentative and I will modify accordingly depending on the pace of the class. We will cover as many topics as time permits, but I will take time to make sure every student understand class material well.

Week 1: Descriptive Statistics

Session 1: Chapter 1: Introduction: Data and Statistics

Session 2: Chapter 2: Descriptive Statistics: Tabular and Graphical Presentations

Session 3: Chapter 3: Descriptive Statistics: Numerical Measures

Week 2: Probability Distributions



Session 4: Chapter 4: Introduction to Probability

Session 5: Chapter 5: Discrete Probability Distribution

Session 6: Chapter 6: Continuous Probability Distribution

Week 3: Sampling Distribution

Session 7: Chapter 6: Continuous Probability Distribution

Session 8: Midterm Exam

Session 9: Chapter 7: Sampling and Sampling Distributions

Week 4: Statistical Inferences

Session 10: Chapter 8: Interval Estimation

Session 11: Chapter 9: Hypothesis Testing

Session 12: Chapter 10: Comparisons Involving Means, Experimental Design and ANOVA

Week 5: Regression Analysis Session 13:

Chapter 11: Comparisons Involving Proportions and Test of Independence

Session 14: Chapter 12: Simple Linear Regression

Session 15: Final Exam