

Managerial Statistics (MA)

Statistical Analysis for Business (Ph.D)

Spring 2017

Professor Sung-Il Bae

Class Meets

Wednesday, 6:00-8:45 p.m., Room 208

Contact Information

- Office Location: Room 216, College of Management & International Relations Building (located in the opposite of the GSP Building)
- Email Address: bbsi@khu.ac.kr
- Office Hours: Only by Email appointment
- Course Website: <http://gsp.khu.ac.kr> ⇨ Information Center ⇨ Class Board (Lecture notes are downloadable)

Course Description

This course is designed for students who have never taken any college level of statistics. The purpose of the course is to introduce basic concepts of statistics and statistical methods and to apply them to the real world. Students are not expected to have had any mathematical or statistical training beyond the high school level of mathematics. Nevertheless, students who have never been exposed to any mathematics at college, may have difficulty in following the course. The course will emphasize data analysis skills. After taking this course, the students are expected to have high proficiency of Excel and statistical skills to implement appropriate methods for various data analysis.

Reading Materials

Required Text: Keller, G., *Managerial Statistics*, 9th ed., South-Western, 2011.

Course Grades

Grades will be based on two quizzes, a midterm and a final exam with attendance and class participation. Students are required to take quizzes and exams on the scheduled time. No makeup exams and quizzes will be given.

The final grade for the course consists of

- ① Attendance and class participation: 10%
- ② Quizzes: 30%
- ③ Midterm exam: 30%
- ④ Final exam: 30% (20% for Ph.D. students)
- ⑤ Special assignment for Ph.D. students: 10% (Ph.D. students should submit a special assignment at the end of the semester.)

Calculators

You will definitely need a calculator for the quizzes as well as the two exams. Any calculator which is possible to compute X^y will do.

Class Schedule and Course Outline (Preliminary)

The following schedule shows the topics that will be covered in our class. Also, listed is the material that the students should read through before each class. This schedule should be considered tentative, as it is likely to change during the course, depending on various factors such as the degree of your understanding. Should changes be made, they will be announced in class at least in ahead of one or two weeks.

Week 1: Introduction: Overview of Business Statistics Descriptive Statistics and Inferential Statistics Visual Description of Data

- Required Reading: Ch. 1 and Ch. 2

Week 2: Visual and Statistical Description of Data Numerical Descriptive Techniques

- Required Reading: Ch. 3 and Ch. 4

Week 3: Numerical Descriptive Techniques

- Required Reading: Ch. 4

Week 4: Basic Concept of Probability

- Required Reading: Ch. 6

Week 5: Review of Probability and Numerical Analysis

Week 6: Random Variables and Discrete Probability Distributions

- Required Reading: Ch. 7

Week 7: Continuous Probability Distributions Normal, t, X^2 , and F distribution

- Required Reading: Ch. 8

Week 8: Midterm Exam

Week 9: Sampling Distributions

- Required Reading: Ch. 9

Week 10: Introduction to Estimation

- Required Reading: Ch. 10

Week 11: Introduction to Hypothesis Testing

- Required Reading: Ch. 11

Week 12: Inference about a Population

- Required Reading: Ch. 12

Week 13: Inference about Comparing Two Populations

- Required Reading: Ch. 13

Week 14: Analysis of Variance or Simple Linear Regression

- Required Reading: Ch. 14 (or 16)

Week 15: Final Exam