
Statistics (II)

Introduction

Using and understanding statistics and statistical procedures have become required skills in virtually every profession and academic discipline. This course, as an extended course of Statistics (I), begins with the fundamental concepts of inferential statistics bypassing the fundamental statistical concepts of descriptive statistics, probability, & sampling distributions that were already introduced in Statistics (I). Therefore, those who failed to pass the course of *Statistics (I)* are not qualified to take this course. This course covers the topics of inferences on correlation between variables, population differences in means, proportions & variances, and causality among variables. This course is featured by the introduction of modern statistical applications such as excel and SPSS to help solve statistical problems. Students will learn the complete procedures of interval estimation and hypothesis testing regarding population characteristics using modern statistical tools. Students are required to demonstrate what have learned from the class through a team-based term project.

Objectives

The purpose of this course is to help students, majoring in management, marketing, finance, accounting, economics, and other fields of business administration, understand basic statistical concepts and techniques. After taking this course, students are expected to:

1. understand the fundamental concepts of statistics;
2. be capable of organizing and presenting data in statistical terminology and methods;
3. be capable of making inferences about properties of populations; and
4. be familiar with the statistical applications such as SPSS.

Evaluation

1. Presence/Homework	30% ¹
2. Mid-term exam	20% ²
3. Final exam	20% ²
4. Term project	30%

¹ Assignments turned in later than the deadline will be rejected. Plagiarizing, as well as being plagiarized, is strictly prohibited.

² The schedule for mid-term & final exams is subject to changes. You will be notified one week in advance in case of changes. The use of scientific calculator is permitted but any device with memory function such as electronic dictionary and mobile phone is prohibited in both examinations.

Textbook

Lind, D. A., Marchal, W. G., & Wathen, S. A. (2024). **Statistical Techniques in Business & Economics**, 19th ed., McGraw Hill, NY.

References

Weiss, N. A. (2017), **Introductory Statistics**, 10th ed., Boston, Addison Wesley, MA.

Berenson, M. L., Levine, D. M. & Szabat, K.A. (2015), **Basic Business Statistics: Concepts and Applications**, Global Edition, Pearson Prentice Hall, NJ.

Requirement

Statistics (I) is a prerequisite.

Schedule

Week	Date	Chap.	Content	Homework
1	2/17		An overview of inferential statistics	
2	2/24		The procedures of hypothesis testing: p -value approach	
3	3/3	10	One-sample tests of Hypothesis	
4	3/10		An introduction on SPSS	
5	3/17	11	Two-sample tests of Hypothesis	10
6	3/24	12	Analysis of variance (ANOVA)/SPSS	11
7	3/31		Data collection using questionnaires & database	12
8	4/7		~ Spring break	
9	4/14		Mid-term exam	
10	4/21	13	Correlation and linear regression	
11	4/28		Correlation and linear regression	
12	5/5	14	Multiple regression	13
13	5/12		Multiple regression	
14	5/19	15	Nonparametric methods: Nominal data	14
15	5/26	16	Nonparametric methods: Ordinal data	15
16	6/2		Final exam	16
17	6/9		Term Project Presentation	
18	6/16		~ Buffering week	

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The teaching assistant provides Q&A service one hour prior to the class weekly.