

## Statistics II --Spring course

### 1. Objective :

The main objective of this course is to provide students the fundamental probability theory and the necessary tools for the analysis of actual and realistic data. To this aim, the course will cover the following topics: numerical descriptive measures, basic probability, some important distributions, and sampling distributions, hypothesis testing, linear regression models.

### 2. TEXTBOOK:

Berenson et al., (2019): Basic Business Statistics: Concepts and Applications, 14<sup>th</sup> edition, Pearson. (華泰文化代理)

### 3. Reference book

林惠玲、陳正倉，2010，統計學：方法與應用，5版，雙葉書廊。

### 4. Software: Microsoft Excel

### 5. Grading

Class Attendance: 6%

第一次 Midterm Examination: 30%

第二次 Midterm Examination: 30%

第三次 Final Examination: 34%

### 6. COURSE OUTLINE

#### Statistics I--Fall course

Chapter 1: An Introduction to Business Statistics

Chapter 2: Descriptive Statistics: Tabular and Graphical Methods

Chapter 3: Numerical Descriptive Measures

Chapter 4: Basic probability

Chapter 5: Some important discrete probability distributions

Chapter 6: The normal distribution and other important continuous probability distributions

Chapter 7: Sampling and sampling distributions

Chapter 8: Confidence interval estimation

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**Chapter 9: Hypothesis Testing with One Sample**

**Chapter 10: Hypothesis Testing with Two Samples**

**Chapter 11: Analysis of Variance : Chi-Square Tests and the F-Distribution**

**Chapter 12: Nonparametric Tests**

**Chapter 13: Simple Linear Regression**

**Chapter 14: Dummy Variable and Simple Linear Regression**

Office Hours: Monday 1:00-2:00 (TSMC Building 750,  
styu@mx.nthu.edu.tw)