



蘇州大學  
Soochow University

# STA 255 Introductory Business Statistics

Summer 2024

**Course Credits:** 4

**Contact Hours:** 56 hours

**Instructor:** TBA

**Email:** TBA

## **COURSE OBJECTIVES**

This course provides an introduction to statistical methods and techniques as applied to business contexts. Students will gain a solid foundation in statistical concepts and tools essential for decision-making and problem-solving in the business world. Emphasis is placed on practical applications, data analysis, and interpretation of results. The course covers descriptive statistics, probability, inferential statistics, regression analysis, and hypothesis testing. Through hands-on exercises and real-world examples, students will develop the skills necessary to analyze and interpret data, make informed business decisions, and communicate statistical findings effectively.

Upon Completion of this Course, students will be able to:

1. Master concepts in numerical descriptive measures, sampling distributions, confidence interval estimation, hypothesis testing, and simple linear regression model;
2. Recognize business situations that require the use of statistical tools of analysis;
3. Demonstrate the use of statistics, probability, and statistical models to support decision making in business;
4. Select appropriate statistical methods to analyse real-life business data;
5. Apply standard statistical software, such as Microsoft Excel, to analyse data arising from real-life business problems.

## **PREREQUISITES**

None



## GRADING

Grades will be determined by accumulating points, with 100 points being the maximum, as follows:

ITEM	POINTS
2 Assignments	20 Points
2 Quizzes	20 Points
Midterm Exam	25 Points
Final Exam	35 Points
Total	100 Points

Late submissions will be graded at the end of the course. Grades will be assigned according to the following rule:

$$A \geq 90 > B \geq 80 > C \geq 70 > D \geq 60 > F.$$

We reserve the right to make adjustments to the overall grading policy.

## COURSE MATERIALS

### **Required Texts:**

Levine, D.M., Szabat, K.A. and Stephan, D.F. *Business Statistics: A First Course*. Pearson.

### **Recommended (Optional) Texts or Other Materials:**

None

## COURSE TOPICS

MODULE	TASKS
Module 1	<b>Topics:</b> Topic 1: Types of Variables Topic 2: Data Collection and Presentation Topic 3: Numerical Descriptive Measures Topic 4: Covariance between two variables <b>Assessments:</b> Assignment #1



Module 2	<b>Topics:</b> Topic 5: Basic Probability Topic 6: Discrete Probability Distributions Topic 7: The Normal Distribution Topic 8: Sampling Distributions <b>Assessments:</b> Quiz #1
Module 3	<b>Topics:</b> Topic 9: Confidence Interval Estimation Topic 10: Hypothesis Testing Topic 11: Two-Sample Tests Topic 12: Analysis of Variance <b>Assessments:</b> Assignment #2 Midterm Exam
Module 4	<b>Topics:</b> Topic 13: Chi-Square and Nonparametric Tests Topic 14: Simple Linear Regression Topic 15: Multiple Regression Topic 16: Multiple Regression Model Building <b>Assessments:</b> Quiz #2
Module 5	<b>Topics:</b> Topic 17: Time-Series Forecasting Topic 18: Business Analytics Topic 19: Statistical Applications Topic 20: Decision Making <b>Assessments:</b> Final Exam

## ATTENDANCE

1) Class attendance is required. Missing classes without permission will lead to decrease in overall grade.

Missing less than two classes: no penalty.

Missing more than two classes: 7% will be taken off from the overall grade.

If the instructor reports a student's frequent missing of class to the Soochow University Academic Administration Office, the student might get a written warning and might be prohibited from attending final exam.



2) Participants in this course are expected to arrive in class promptly and adequately prepared. The primary objective of this course is to critically engage with the readings and the subject matter. Therefore, course participants are expected to have completed the reading prior to class and prepare thoughtful reflections/commentaries to share with fellow colleagues.

### **LEARNING REQUIREMENTS**

- 1) Late assignments are not acceptable and are subjected to grade deductions.
- 2) Assignments submitted in the wrong format will be counted as not submitted.
- 3) Failure to submit or fulfill any required course component results in failure of the class.
- 4) Make-up for midterm and final exams only with valid excuses, as defined by the University.
- 5) In order to earn a Certificate of Completion, participants must thoughtfully complete all assignments by stated deadlines and earn an average quiz score of 50% or greater.

### **TECHNOLOGY POLICY**

The use of electronic devices in class is distracting, both for the user and for the rest of the class. Only non-programmable calculators can be used in the tests and exam. Any attempts to use cell phones and other electronic communication devices will be seemed as cheating. Laptops are discouraged, unless you use them for activities DIRECTLY related to the course (eg., note taking, reading course documents).

### **ACADEMIC INTEGRITY POLICY**

Soochow University highly values the academic integrity and aims to promote the academic fairness, honesty and responsibility. Any academic dishonesty behaviors and any attempts to cheats and plagiarism will be reported to the university administration office. A written warning and the relevant penalties will be imposed. The record might be shown on the official university transcript.

### **DISABILITY ACCOMMODATION**



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Soochow University is committed to maintaining a barrier-free environment so that students with disabilities can fully access programs, courses, services, and activities at Soochow University. Students with disabilities who require accommodations for access to and/or participation in this course are welcome.

Note:

Please contact the University Administrative Office immediately if you have a learning disability, a medical issue, or any other type of problem that prevents professors from seeing you have learned the course material.