



## **Hankuk University of Foreign Studies**

### **2024 Summer Session**

## **BUS 234 Quantitative Methods for Business Decisions**

### **Course Outline**

**Course Code: BUS 234**

**Instructor: Victor Y. Lian**

**Home Institution: Lynn University**

**Office Hours: TBA and by appointment**

**Email: victor.lian@hotmail.com**

**Credit: 4**

**Class Hours:**

This course will have 52 class hours, including 32 lecture hours, professor 8 office hours, 8-hour TA discussion sessions, 4-hour review sessions.

**Prerequisites:** STAT 100; MATH 110; COMP 101;

#### **Course Description:**

Quantitative Methods for Business Decisions is a comprehensive course designed for undergraduate students interested in leveraging statistical analysis and quantitative reasoning to make informed business decisions. Through the lens of the acclaimed textbook "BUSINESS STATISTICS" by Robert A. Donnelly, Jr., students will explore foundational and advanced statistical techniques crucial for analyzing real-world business scenarios.

The course covers a broad spectrum of topics, including descriptive statistics, probability theory, discrete and continuous distributions, sampling distributions, estimation, hypothesis testing, regression analysis, time series analysis, and decision-making under uncertainty. Emphasis will be placed on applying these concepts to solve practical business problems, ranging from market analysis and financial forecasting to quality control and risk assessment.



**Learning Objectives:**

By the end of this course, students will be able to:

1. Understand and apply basic and advanced statistical techniques in the context of business decision-making.
2. Analyze and interpret data using statistical software to support business decisions.
3. Critically evaluate the results of statistical analyses and their implications for business strategies and operations.
4. Communicate statistical findings effectively to both technical and non-technical audiences in the context of business reports and presentations.
5. Develop a quantitative mindset that emphasizes evidence-based decision-making in business environments.

**Required Course Materials:**

BUSINESS STATISTICS, Robert A. Donnelly, Jr., First Edition, Pearson Education, Inc., 2013

**Grading & Evaluation:**

Weekly Assignments 50%

Critical questions covering the related topics

Final Exam 30%

Comprehensive exam to test the students' understanding, analytics, and application of related concepts and theories

Course Reflection and Discussion: 20%

Students will summarize key concepts and have discussions with each other.

**Grading System (1 ~ 100)**

A+ : 96 - 100	A : 91 - 95
B+ : 86 - 90	B : 81 - 85
C+ : 76 - 80	C : 71 - 75



D+ : 66 - 70	D : 60 - 65
F : 0 - 59	
Pa : Pass	Fa : Fail

**Course Schedule:**

**Week 1:** Discrete Probability Distributions (Sections 1 and 2); Continuous Probability Distributions

**Week 2:** Sampling and Sampling Distributions; Confidence Intervals

**Week 3:** Hypothesis Testing for a Single Population; Hypothesis Tests Comparing Two Populations

**Week 4:** Chi-Square Tests; Correlation and Simple Regression Analyses; Multiple Regressions and Model Building;

**Late submission**

Late submission of assignments will be subject to points deduction (10% everyday) unless by prior arrangement and permission from the instructor.

**Academic misconduct**

Please follow the guidelines of the university policy. Academic dishonesty or misconduct will not be tolerated and may result in disciplinary action including a grade F for the course.

- The work submitted must be the original work of the student. Original work may include the words and ideas of others, but the source of these words and ideas must be indicated in a manner consistent with an academically recognized form, style, and citation manual.
- Resubmission of work previously presented in another course is prohibited.
- AI generated submissions are prohibited in this course and will be regarded as plagiarism.



### **Accommodation**

- Accommodation for students with disabilities will be provided once approved by the university.
- Missing class activities and late submissions due to religious holidays are acceptable based on the approval by the university.

