



## **Hankuk University of Foreign Studies**

### **2024 Summer Session**

### **BUS 235 Business Analytics**

### **Course Outline**

**Course Code: BUS 235**

**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:**

Math 1131 or 1151, CSE 1113 or 2111, ECON 2001.01 and 2002.01

**Course Description:**

Business Analytics is an essential course designed for undergraduate students that bridges the gap between theoretical business concepts and real-world applications using spreadsheet models. Utilizing "Spreadsheet Modeling for Business Decisions, 5th Edition" by Kros as the foundation, this course introduces students to the art and science of decision-making in the business world through advanced Excel techniques and tools.

Students will explore a wide range of topics, including data management, descriptive analytics, predictive analytics, and prescriptive analytics, with a strong emphasis on problem-solving and decision-making based on quantitative analysis. This course offers in-depth knowledge on the



methodologies of decision modeling, focusing on the collection of relevant data, the development and construction of models, the analysis of outcomes, and leveraging these insights to inform decision-making. Students will have hands-on experience in building, validating, and using spreadsheet models to analyze business data and make strategic decisions.

### **Learning Objectives:**

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

1. Understand the role of data and analytics in contemporary business decision-making processes.
2. Apply descriptive, predictive, and prescriptive analytics techniques to solve business problems and enhance decision-making.
3. Assess and interpret data to augment the decision-making framework.
4. Construct data-driven models tailored for real-world decision support.
5. Apply visual and spreadsheet tools to address straightforward Linear Programming challenges.
6. Examine how solutions fluctuate with changes in initial assumptions, the integration of new variables, and the application of organizational wisdom in solution evaluation.
7. Distinguish between stochastic and deterministic models, recognizing their suitable applications, benefits, drawbacks, and constraints.
8. Effectively present data to enhance the process of organizational decision-making and strategic planning.

### **Required Course Materials:**

Spreadsheet Modeling for Business Decisions, 5th Edition, Kros, 2019, Kendall Hunt

### **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:** Decision Making Process and Tools; Decision Analysis; Optimization Models - Linear Equations & Systems

**Week 2:** Optimization Models - Graphic Solutions; Optimization Models – Spreadsheet Applications

**Week 3:** Sensitivity Analysis - Graphic Solutions; Solver Sensitivity Analysis

**Week 4:** Network Models; Simulation, Replication, & Analysis

**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.

