View Syllabus Information

Course Information			
Year	2023	School	School of Commerce
Course Title	Data Analytics for Business 1		
Instructor	KIM, Tae-Seok		
Term/Day/Period	spring semester Fri.3		
Category		Eligible Year 2nd year and above	Credits 2
Classroom	11-602 Computer Room 2	Campus waseda	
Course Key	1600004AH6	Course Class Code 01	
Main Language	English		
Class Modality Categories	[On-campus]		
Course Code	MANX381L		
First Academic disciplines	Management		
Second Academic disciplines	Management		
Third Academic disciplines	Others		
Level	Advanced, practical and specialized	Types of lesson Lecture	

Syllabus Information	Latest Update : 2023/01/13 18:01:59
Course Outline	In recent years, data on individuals and organizations has become more ubiquitous than ever. In addition to the increase in the availability and quantity of data, the types of data, including social relationships and textual information, have become more diversified than ever. In this regard, the ability to understand and utilize data for decision makings in business contexts has become an important source of competitive advantage. This course is designed to give a survey of different data analysis tools used in business and social science research. Throughout the course, we will cover basic quantitative analysis, network analysis, and text analysis. Each class session will be comprised of two components: 1) an introduction to the concepts of and tools for different data analysis methods and 2) a hands-on demonstration of some of the data analyses using statistical software. After each class, students will be assigned exercises to analyze datasets with the techniques learned in class. At the end of the semester, students will choose one ore more data analysis method learned in class to analyze data and write a report. The class will be conducted entirely in English.
Objectives	- Students will learn different data analysis methods - Students will learn how to use statistical software to analyze data. - Students will learn how to interpret the results of data analysis.
before/after course of study	Assignments will be given after each class. In the assignment, student will use techniques learned in class to analyze data and write a summary of their analyses.
Course Schedule	1: 第1回 Course introduction The goal of this session is to introduce the course materials and get to know each other. I will present the detailed expectation of this course (e.g., course material, grading policies, etc.) Students will introduce themselves and share their backgrounds and expectations for this course as well. By the end of this session, students should understand how the class will be carried out throughout the semester. 2: 第2回 Introduction to quantitative data analysis This session will cover the basics of data analytics, including the data structure, different types of variables, and basic data visualization. 3: 第3回 Test statistics and measures This session will cover useful test statistics and measures that help researchers understand the patterns and relationships among variables in the data. 4: 第4回 Regression analysis This session will cover the basics of regression analysis, including the purpose, underlying assumptions, interpretations, and applications in regression analysis. 5: 第5回 Applications of quantitative analysis in a research context This session will cover how quantitative analyses are used in social science research. 6: 第6回 Introduction to network analysis This session will cover the basics of network analysis, including basic network concepts and network visualization.

7: 第7回 Node-level measures
This session will cover different types of network measures at the node level.
8: 第8回 Network-level measures
This session will cover different types of network measures at the network level.
9: 第9回 Applications of network analysis in a research context
This session will cover how network analyses are used in social science research.
10: 第10回 Introduction to text analysis
This session will cover the basics of text analysis, including the purpose of and basic procedures for conducting text analysis.
11: 第11回 Topic modeling
This session will cover the basics of topic modeling and its applications in research.
12: 第12回 Sentiment analysis & text similarity
This session will cover the usage of sentiment analysis and text similarity analysis in research.
13: 第13回 Applications of text analysis in a research context
This session will cover how text analyses are used in social science research.
14: 第14回 Course summary
In this session, we will summarize what we have learned in this course so far.

Textbooks

There are no formal textbooks for this course as of now. This may be updated, depending on the needs of the class.

Evaluation

Rate		Evaluation Criteria
Papers:	20%	A final report in English: - Students will choose one or more data analysis methods learned in this course to analyze a given dataset. Students will submit a report of their analysis at the end of the semester.
Class Participation:	50%	Weekly assignment: - After each class, students will analyze assigned data set and submit a mini report of their results.
Others:	30%	Attendance and class participation: - Class attendance is critical for learning in this class because we will demonstrate data analysis in class and go through example exercises in class together. Plus, students will be evaluated on the basis of their participation in class in terms of engaging in class discussions.

Note / URL

- The class will be conducted entirely in English.
- The content of current syllabus is subject to further change, if needed, to best accommodate the learning goals.
- We will use STATA and Python (Google Colaboratory) throughout the course.