Communication & Business Institute
The Leading Graduate School of Communication & Business

Department of Business
Subject Syllabus

Subject Code	:	BIS23
Subject Title	:	Big Data Innovation
Subject Specification	:	For Management Study Program

Subject Overview :

These courses will equip students with the skill they need to apply to introductory-level data analysis. Organizations of all kinds need data analysts to help them improve their processes, identify opportunities and trends, launch new products, and make thoughtful decisions.

Course Objectives :

- Gain an understanding of the practices and processes of data analytic roles in an organization.
- Learn about key analytical skills (data cleaning, data analysis, data visualization) and tools (spreadsheets, SQL, R programming, Tableau).
- Discover a wide variety of terms and concepts relevant to the role of a junior data analyst, such as the data life cycle and the data analysis process.

Course Method :

- Lectures and reading materials
- Class discussion
- Class presentation
- Case studies
- Class project

Learning Outcome (Competence) :

Knowledge:

- Memahami konsep dasar Big Data, termasuk karakteristiknya (volume, velocity, variety, veracity, value), teknologi terkait, serta tantangan dan peluang yang dihadirkan.

Skill:

- Mampu menerapkan teknik analisis Big Data menggunakan tools dan bahasa pemrograman yang relevan untuk menggali insight dan mendukung pengambilan keputusan.

Attitude:

- Mengembangkan pola pikir kritis dan inovatif dalam mengidentifikasi potensi pemanfaatan Big Data untuk menciptakan solusi baru dan memberikan nilai tambah bagi organisasi.

Course content

Week	Topic
1	What is Big Data and How Important in Our Daily Life
2	Data Analytics : Transforming Data into Insight
3	Data Ecosystem: Discovering Data Ecosystem
4	Discovering Data Skill sets
5	Using data to drive successful outcomes
6	Class Presentation and Discussion (Project Proposal -CW 2)
7	Review for Mid Test
Mid Examination	
8	Data Phase and Tools
9	Key Data Analytic tools
10	Spreadsheet and SQL Basic
11	Planning Data Visualization
12	Data Visualization with Tableau
13	Class Presentation (Data Visualization)
14	Review for Final Presentation
Final Examination	

Grading System :

Course Evaluation :

As a general rule, students are evaluated based on the following criteria:

Final Examinations	35%
Mid-term Examinations	25%
Coursework & Assignments	30%
Attendance	10%
TOTAL	**100%**

Lecturers, however, have the option of requiring midterm and final papers in lieu of midterm and final examinations. They may likewise change the percentage (weight) for each of the above mentioned items.

The accept/table grade for LSPR Communication & Business Institute (S1) program is **60 and above.** In the Letter Grade System, the quantitative grades mean:

Grade	Symbol	Conversion Value
90 – 100	A	4.0
85 – 89.99	A-	3.7
80 – 84.99	B+	3.3
75 – 79.99	B	3.0
70 – 74.99	B-	2.7
65 – 69.99	C+	2.3
60 – 64.99	C	2.0
50 – 59.99	C-	1.7
40 – 49.99	D	1.0
< 40	E	0

The student Grade Point Average (GPA) is organized into the following categories:

GPA of 0.00 – 1.99 = Fail

GPA of 2.00 – 2.49 = Pass

GPA of 2.50 – 2.99 = Credit

GPA of 3.00 – 3.49 = Merit

GPA of 3.50 – 4.00 = Distinction

Scheme of Work :

Session	Title/Topic	Area Discussion	Activities
I	What is Big Data and How Important in Our Daily Life	1. Understanding Big Data Concept and principle 2. Understanding the important of data in Business	Lecturing, Discussion, Question & Answer
II	Data Analytics : Transforming Data into Insight	1. Understanding about data analytics	Lecturing, Discussion, Question & Answer
III	**Data Ecosystems:** Discovering Data Ecosystem	1. Understanding Data Ecosystem	Lecturing, Discussion, Question &

			Answer
IV	Discovering Data Skill sets	1. Understanding data skill sets and detailing	Lecturing, Discussion, Question & Answer
V	Using data to drive successful outcome	1. How data improve our organization	Lecturing, Discussion, Question & Answer
VI	**Class Presentation and Discussion (Project Proposal -CW 2)**	1. Presenting the group concept for final project	Lecturing, Discussion, Question & Answer
VII	**Review for Mid Test**	Review for Mid Test. & class work 2 short papers on.	Discussion, Question & Answer
Mid Exam			
VIII	Data Phase and Tools	1. Step by step data phase 2. Understanding data tools	Lecturing, Discussion, Question & Answer
IX	Key Data Analytic tools	1. Key important of data analytic process	Lecturing, Discussion, Question & Answer
X	Spreadsheet and SQL	1.Learn how to use Spreadsheet and SQL in data analytic	Lecturing, Discussion, Question & Answer
XI	Planning Data Visualization	1. How to set and planning data visualization	Lecturing, Discussion, Question & Answer
XII	Data Visualization with Tableau	1. Learn data visualization with tableau	Lecturing, Discussion, Question & Answer

XIII	**Class presentation and discussion (CW 4)**	1. Presenting the group concept for final project showcase	Lecturing, Discussion, Question & Answer
XIV	**Review for Final Projects**	Review for Final Projects	Discussion, Question & Answer
Final Exam	**Submit paper & Showcase**	Submit the group data visualization project	Submission

Midterm Paper Guideline **:** Written Test

Final Assessment Guideline **:** Data Visualization Submission

References **:**

- Eckerson, W. W. (2016). *The new rules of business analytics: Optimize your big data strategy*. John Wiley & Sons.
- Marr, B. (2016). *Big data in practice: How 45 successful companies used big data analytics to deliver extraordinary results*. John Wiley & Sons.
- McAfee, A., & Brynjolfsson, E. (2012). *Big data: The management revolution*. Harvard Business Review Press.

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