



Course Syllabus

Course Code/Title CI200 Data Science for Everyday Life.....
Credit Units.....Lecture 3(3-0-6).....
Semester/Academic Year.....1/2567.....
Curriculum Bachelor of Arts Program in Philosophy, Politics and Economics (International Program).....
College of Interdisciplinary Studies, Thammasat University

Lecture Day/Time: Wednesday 9.00 - 12.00 น.

Lecture Room: SPD306

Main Lecturer: Sarun Gulyanon (sarung@tu.ac.th)

Co-Lecturer: N/A

Coordinator: N/A

Course Description

Introduction to data science, importance and history of data science, the overview of knowledge integration over social science and technology and how they are related. How data science has affected us in everyday life. Steps in applying data science in real works including data acquisition, data preparation, data analysis and visualization.

Course Objectives

- 1) Understand the basic concepts, definitions, and scope of data science.
- 2) Recognize the importance of data-driven decision making and how data science improves decision-making processes.
- 3) Be able to apply data science process and use data science tools (e.g., Tableau) to solve basic problems.

Teaching Methods

Lectures, Quizzes, Group Project, Brainstorming, Research, Examination

Course Learning Outcomes

No.	Learning Outcome	Teaching Methods	Assessment Methods
1	Learners can explain the working processes of data science.	Lectures	Quizzes and Examination
2	Learners can define the meaning of data science and identify its benefits and limitations.	Lectures and Brainstorming	Quizzes and Examination
3	Learners can explain the relationship of data science with other technologies such as Big Data, Artificial Intelligence, and Machine Learning.	Lectures	Quizzes and Examination
4	Learners can explain the basic knowledge necessary for working in data science, including data representation in computers, data structures, programming principles, and the working principles of computer systems.	Lectures	Group Project
5	Learners can distinguish between various careers related to data science.	Lectures and Research	Quizzes and Examination
6	Learners can apply data science in everyday life.	Lectures and Brainstorming	Group Project

Study Plan

Session	Date	Topic	Lecturer
1	14/8/2567	Introduction, Course overview	Sarun Gulyanon
2	21/8/2567	Data Science in Everyday Life and Society	Sarun Gulyanon
3	28/8/2567	Data Science Process	Sarun Gulyanon
4	4/9/2567	Data Acquisition I	Sarun Gulyanon
5	11/9/2567	Data Acquisition II	Sarun Gulyanon
6	18/9/2567	Data Preparation	Sarun Gulyanon
7	25/9/2567	Data Visualization I	Sarun Gulyanon
Midterm Examination			
8	9/10/2567	Data Visualization II: Tableau	Sarun Gulyanon
9	16/10/2567	Data Analysis, AI, and Machine Learning	Sarun Gulyanon
10	23/10/2567	Digital Transformation	Sarun Gulyanon
11	30/10/2567	Software Development and Deployment	Sarun Gulyanon
12	6/11/2567	Data Governance I	Sarun Gulyanon
13	13/11/2567	Data Governance II	Sarun Gulyanon
14	20/11/2567	AI Ethics	Sarun Gulyanon
15	27/11/2567	Group Project Presentation	Sarun Gulyanon
Final Examination			

Assessment

- Grading Criteria

Quizzes	40%
Group Project	30%
Final Exam	30%

- Grading Scale

A	85-100
B+	80-84
B	75-79
C+	70-74

C	65-69
D+	60-64
D	55-59
F	0-54

Textbooks and Reading Materials

- Loth, A., Vogel, N., & Sparkes, S. (2019). Visual Analytics with Tableau.
- Tableau. URL: <https://www.tableau.com/learn>