Course Outline

Course Code   : DAO1704
Course Title   : Decision Analytics Using Spreadsheets
Class Date   : From 13/1/2025   To 18/4/2025
Semester   : Semester 2, Academic Year 2024/2025
Faculty   : Tan Hong Ming, Sidika Candogan, Melvyn Sim
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Overview

We are now at the era of big data. Companies are able to collect a tremendous amount of data, very often more than necessary, with ease. "Information is Power" is no longer valid if companies are not able to make correct decisions timely in terms of the data available. The use of business analytics for modeling and decisions represents the future of best practices for the success of tomorrow's companies.

This module prepares students with theory and skills to capture business insights from data for decision making using Spreadsheets. Practical examples and cases with rich data are used to stimulate students' interest and foster their understanding of the use of Business Analytics in management or business fields.

Course Objectives

Students are expected to become proficient in the extensive use of Spreadsheets in the business environment. The module will enable students to consider the data dimension in making decisions at all levels in the organizational setting.

Assessment

Assessment Components	Weightage
Class Participation	10%
Group Project	15%
Quiz	10%
Assignments	15%
Final Exam	50%

Schedule and Outline

Lesson/ Week	Date	Session (lesson summary or outline / learning objectives / preparation / cases & assignments / follow-up readings & resources)
1	13 Jan	Introduction
2	20 Jan	Data Intelligence
3	27 Jan	Chinese New Year Week (no lesson)
4	3 Feb	Probability Theory

5	10 Feb	Discrete Probability Distributions
6	17 Feb	Continuous Probability Distributions
R	22 Feb	Reading week
7	3 Mar	Introduction to Simulation Modeling
8	10 Mar	Decision Trees
9	17 Mar	Introduction to Linear Optimization
10	24 Mar	Sensitivity Analysis & Shadow Price
11	31 Mar	Hari Raya Puasa Week (no lesson)
12	7 Apr	Introduction to Discrete Optimization
13	14 Apr	Application of optimization

General Guide & Reading (e.g. Case preparation guide, project report guide, main textbook & supplementary materials, etc)

Business Analytics: Data, Modelling & Application
https://www.cengageasiaestore.com/sg/9788000042879.html

Lecture notes and videos

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Plagiarism is 'the practice of taking someone else's work or ideas and passing them off as one's own' (The New Oxford Dictionary of English). The University and School will not condone plagiarism. Students should adopt this rule - You have the obligation to make clear to the assessor which is your own work, and which is the work of others. Otherwise, your assessor is entitled to assume that everything being presented for assessment is being presented as entirely your own work. This is a minimum standard. In case of any doubts, you should consult your instructor.

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- http://www.nus.edu.sg/registrar/administrative-policies-procedures/acceptance-record#NUSCodeofStudentConduct
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