Nanyang Technological University
Nanyang Business School
BU8401: Management Decision Tool

Course Aims

The aim of this course is to study the use of a scientific approach to managerial decision making. As business problems become increasingly complex, managers need to approach decision making systematically and analytically. The course seeks to impart students with such frameworks and techniques for structuring and solving a variety of decision problems, particularly in the use of model building and analysis.

Intended Learning Objectives

By the end of the course, student is expected to:

1. develop skills in analytical thinking and,
2. develop problem-solving skills related to business decision-making, including use of spreadsheet modeling software to solve large-scale practical problems.

Course Content

Topics covered in the course include:
1. optimization models for business decisions,
2. inventory control,
3. waiting line management,
4. simulation,
5. forecasting and
6. decision making under uncertainty and risk,

Examples and cases are drawn from a variety of industries and business sectors, including accounting, finance, marketing, and operations management.

Assessments

Component	Weightage	Individual/Team
Class Participation	15%	Individual
Assessments	15%	Individual
Quiz #1	20%	Individual
Final Examination	50%	Individual
Total	100%	

Proposed Weekly Schedule

Week	Topics
1	Introduction
2	Linear Programming: Sensitivity Analysis
3	E-Learning Week
4	Linear Programming: Applications
5	Integer Linear Programming
6	Distribution and Network Models
7	Simulation
	Recess Week
8	Waiting Line Models I
9	Waiting Line Models II
10	Inventory Models: Deterministic Demand
11	Inventory Models: Probabilistic Demand
12	Forecasting
13	Decision Analysis