

# **MKT552 Marketing Engineering**

**Level:** 5

**Credit Units:** 5 Credit Units

**Language:** ENGLISH

**Presentation Pattern:** EVERY JULY

## **Synopsis:**

The objective of MKT552 Marketing Engineering is to demonstrate students the benefits of using a systematic and analytical approach to marketing decision-making, and to build their skills and confidence in undertaking such analyses in decision making process. An analytical approach will enable the students to acquire research techniques that provide more detailed insights into customer behaviour. The students will learn how to link changes in marketing activities of the firm to alter customer behaviour and to assign a monetary value to these shifts in customer behaviour. By completing this course, the students will be well on their way to make the ROI case for marketing expenditures that companies are increasingly asking of their executives. The course is designed for students who have extensive understanding of marketing research and marketing principles, and who know or are prepared to learn to use statistical software such as MEXL. Using market related exercises tied to computer based software; students will develop marketing plans in varying decision contexts.

## **Topics:**

- Consumer utility maximization
- Choice decision and market share
- Consumer choice and multinomial logit model (MNL)
- New product development
- Conjoint Analysis
- Customer segmentation and cluster analysis
- New product diffusion
- Bass model
- Customer lifetime value
- Valuation of current customer base
- Markov Chain Monte Carlo model (MCMC)
- Customer relationship management

## **Textbooks:**

Marketing Engineering and Analytics - Textbook along with Software access Gary L. Lilien, Arvind Rangaswamy, Arnaud De Bruyn Decision Pro  
ISBN-13: 9780985764821

**Learning Outcome:**

- Develop demand and market share analysis based on consumer utility maximization.
- Evaluate and create a product profile that fulfil management goal.
- Analyse and profile different consumer segments.
- Compare and choose different consumer segments to target.
- Explain the trend and make a prediction of the new product diffusion in defined duration.
- Assess the value of a current customer base and design targeted marketing for individual consumers.
- Apply systematic approach to assist managerial decision making.
- Develop a marketing plan with proper ROI of the marketing expenditure.
- Formulate a marketing intelligence report with data and market evidences.

**Assessment Strategies - Regular Semester (Evening Class):**

<b>Components</b>	<b>Description</b>	<b>Weightage Allocation (%)</b>
Overall Continuous Assessment	PRE-CLASS QUIZ 1	10
	GROUP BASED ASSIGNMENT 1	25
	PARTICIPATION 1	15
Overall Examinable Components	ECA	50
<b>Total</b>		<b>100</b>

\*The information listed is subject to review and change.