

Branch Name:	MANAGEMENT
Program Code:	MS301
Course Name:	Analytical Tools and Techniques for Business Decision Making
Course Code:	2MS3010502T
Pre-requisite Course:	Basic Statistics, Business Management

Course Objectives:

- The course provides in-depth knowledge of handling analytical tools and techniques for fact-based decision-making.
- The tools and techniques covered in the course enable students to make intelligent business decisions using data sets.
- It helps students understand how to apply analytical techniques across various functional business domains.
- The course is designed to enhance students' analytical skills for faster and more effective decision-making.

Teaching and Examination Scheme:

Teaching Scheme (Hours per week)				Evaluation Scheme (Marks)				
Lecture (L)	Tutori al (T)	Practic al (P)	Credit	Theory (Marks)		Practical (Marks)		Total (Mar ks)
				University Assessment	Continuous Assessment	University Assessment	Continuous Assessment	
4	-	-	4	60	40	-	-	100

Subject Contents:

Sr No.	Topic	Total Hours	Weightage (%)
1	Introduction to decision making What is decision making? Significance of decision making in a business, Types of business decisions, Decision making process, Strategies for decision making Analytical tools in decision making Importance of analytical tools in decision making, Significance of tools and technique in decision making., Types of analytical tools and techniques used in business (business related examples)	10	20
2	Descriptive statistics for decision making Frequency analysis and interpretation, Descriptive analysis using tables, graphs, and charts, cross tabulation Inferential statistics for decision making Hypothesis testing, type-I and type-II error, Chi-square test, T test, Z test, ANOVA, Correlation and simple regression analysis	10	20
3	Decision making in functional areas Marketing Marketing metrics, new product decisions, advertisement cost analysis (Impact frequency & reach), Product pricing Decisions Finance & HR Shut Down/Continue, make/buy, processing of joint products, introducing a new product., Cost volume profit (CVP) analysis and margin of safety, Budgetary control, master budget, flexible budget, Staffing, supply and demand forecasting	10	20

4	Decision making in functional areas Inventory management: Managing inventory of independent demand items, EOQ, quantity discounts, ABC Analysis and JIT. Waiting line analysis (Queuing): Elements of waiting line, Queuing (waiting line) analysis & quality, single server models. Project management: CPM and PERT, crashing of network	10	20
5	Case Study: Use of various statistical tools for decision making like, MS Excel, SPSS etc. for practical application.	8	20

Text Books:

Sr. No.	Books
1	IIMA - How to Make the Right Decision - Arnab Laha & Vinay Bhaskar, Random Business
2	Cost Accounting -V. Rajasekaran, R. Lalitha – Pearson
3	Business Statistics for Contemporary Decision Making - Black, K., - Wiley

Reference Books:

Sr. No.	Books
1	Quantitative Techniques in Management-N.D. Vohra, The McGraw-Hill
2	Production and Operations Management - R Panneerselvam, Prentice-Hall India

Course Learning Outcomes (CLO): On completion of this course, the students will be able to:

CLO	Description	Bloom's Taxonomy Level
CLO1	Understand the fundamentals of decision-making, its significance in business	Understand
CLO2	Apply analytical tools and to enhance decision-making in business scenarios.	Apply
CLO3	Analyze statistical methods including hypothesis testing, chi-square test, ANOVA, correlation, and regression to support business decisions.	Analyze
CLO4	Evaluate decision-making approaches in functional using quantitative techniques.	Evaluate
CLO5	Implement inventory management models and project management techniques for effective business operations.	Apply
CLO6	Demonstrate the application of statistical in business decision-making through case studies and practical exercises.	Apply

Mapping of CLOs with Pos & PSOs

Course Learning Outcomes	Program Outcomes (POs)								Program Specific Outcomes (PSOs)	
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PSO1	PSO2
CLO1	H	H							H	
CLO2	H		H						H	
CLO3		H	H						H	
CLO4			H			H				H
CLO5		H	M							H
CLO6			M					H	M	H

H: High, M: Medium, L: Low
