DEPARTMENT OF MANAGEMENT STUDIES

MASTER OF BUSINESS ADMINISTRATION

[Business Analytics]





Department of Management Studies Sardar Vallabhbhai National Institute of Technology, Surat सरदार वल्लभभाई राष्ट्रीय प्रौद्योगिकी संस्थान, सूरत

INSTITUTE VISION STATEMENT

Sardar Vallabhbhai National Institute of Technology (SVNIT), Surat, perceives to be a globally accepted centre of excellence in technical education catalysing absorption, innovation, diffusion and transfer of high technologies resulting in enhanced quality for all the stakeholders.

INSTITUTE MISSION STATEMENT

The mission of the Sardar Vallabhbhai National Institute of Technology (SVNIT), Surat is to be a leading technical Institute not only at national level but also at international level for imparting training to manpower as per the needs of technology. It is also envisaged to provide the necessary infrastructure to take up research work and to provide the mechanism to interact with industries effectively.

DEPARTMENT'S VISION STATEMENT

The Department of Management Studies aspire to be at the forefront of technical and managerial education, shaping future leaders who not only excel in their chosen fields but also contribute significantly to the global landscape. Through a dynamic curriculum, cutting-edge research, and industry collaborations, we aim to foster an environment that encourages creativity, critical thinking, and a spirit of innovation among our students.

DEPARTMENT'S MISSION STATEMENT

The mission of Department of Management Studies is to cultivate a transformative learning environment that empowers students with the knowledge, skills, and ethical values essential for excelling in the ever-evolving landscape of business and technology. The department is committed to staying dynamic and responsive to the evolving needs of the industry, thereby ensuring the relevance and currency of the programs.

Programme Educational Objective (PEOs):

	Analytical Proficiency: Graduates will excel in business analytics, utilizing data insights
PEO1	to drive strategic decisions and optimize organizational performance, contributing to data-
	driven innovation and competitiveness in the global market.
	Strategic Leadership: Graduates will lead ethically and responsibly, applying strategic
PEO2	management principles to address societal challenges, foster sustainable development,
	and create positive social impact alongside organizational success.
	Problem-solving and Innovation: Graduates will innovate solutions to complex problems,
PEO3	integrating data analytics with critical thinking to drive organizational efficiency,
reos	resilience, and societal benefit through entrepreneurial initiatives and collaborative
	endeavours.
	Ethical Responsibility and Professional Development: Graduates will uphold ethical
PEO4	standards, engage in continuous professional development, and champion diversity and
FEU4	inclusivity, ensuring their actions contribute to a socially responsible and equitable
	business environment while advancing their careers with integrity and purpose.

Programme Specific Objectives (PSOs):

	Data Fluency: Develop students' proficiency in utilizing statistical tools and analytics
PSO1	techniques to interpret and communicate complex data effectively, enabling them to make
	informed decisions and drive organizational success.
	Strategic Integration: Equip students with the ability to integrate analytical insights into
PSO2	strategic planning processes, enabling them to identify opportunities, mitigate risks, and
	optimize resource allocation for sustainable business growth.
	Practical Application: Provide students with hands-on experience through internships,
PSO3	projects, and case studies, allowing them to apply theoretical knowledge to real-world
	scenarios and develop practical problem-solving skills in business analytics.
	Industry Relevance: Ensure alignment with industry trends and demands by regularly
DCO 4	updating the curriculum, incorporating emerging technologies, and fostering partnerships
PSO4	with industry stakeholders, preparing students for successful careers in the rapidly
	evolving field of business analytics.

Programme Objectives (POs):

PO1	Develop Analytical Skills: Enable students to acquire analytical skills through a structured curriculum encompassing courses in business statistics, econometrics, and various aspects
	of analytics such as descriptive, predictive, and prescriptive analytics. Foster Business Acumen: Cultivate a strong foundation in core management areas
PO2	including financial management, marketing management, human resource management, and operations management, enabling students to comprehend the strategic implications of data-driven insights within organizational contexts.
PO3	Enhance Decision-Making Abilities: Equip students with the ability to harness data to make informed decisions across functional domains, integrating analytics tools and techniques with management principles to solve complex business problems.
PO4	Promote Practical Experience: Provide hands-on experience through internships and capstone projects, allowing students to apply theoretical knowledge to real-world scenarios, thereby honing their problem-solving skills and enhancing their employability.
PO5	Facilitate Specialization: Offer elective courses tailored to different areas of specialization such as HR, finance, operations, marketing, and IT, enabling students to delve deeper into specific domains aligned with their career aspirations and interests.
PO6	Encourage Innovation and Adaptability: Foster a culture of innovation and adaptability by incorporating emerging topics such as digital transformation, AI, and open AI, preparing students to thrive in a rapidly evolving business landscape.
PO7	Promote Ethical and Legal Awareness: Instill ethical values and legal awareness by integrating courses covering aspects like legal aspects of business and social responsibility, ensuring that graduates uphold ethical standards while leveraging data and technology in business decision-making processes.

CREDIT MATRIX

Catagory	Credits to be Earned							
Category	Sem - I	Sem - II	Sem – III	Sem - IV	Total			
Core Courses	18	18	13	09	58			
Electives Courses	-	-	06	06	12			
Software/Laboratory	03	04	-	-	07			
Capstone Project	-	-	02	-	02			
Dissertation	-	-	-	08	08			

Course Structure for MBA Programme (Business Analytics)

SEMESTER I

Sr.	Course	Code			Examin	ation Schei	me	Total	Credit
No.			Scheme	Th	eory	Tutorial	Practical	10001	Creare
				Hour	Marks	Marks	Marks		
1	Business Statistics (Analytics Core)	MB XXX	3-1-0	3	100	25	-	125	04
2	Management Accounting (Management Core)	MB XXX	3-1-0	3	100	25	-	125	04
3	Organizational Behaviour and Principles of Management (Management Core)	MB XXX	3-0-0	3	100	-	-	100	03
4	Managerial Economics (Management Core)	MB XXX	3-0-0	3	100	-	-	100	03
5	Analytics in Operations Management (Analytics Core)	MB XXX	3-1-0	3	100	25	-	125	04
6	Business Computing and Prescriptive Analytics (Analytics Core)	MBXXX	3-0-0	03	100	-	-	100	03
			Total	18	600	75	-	675	21
			Total Cre	edit	I.	I .	I .	I	21

SEMESTER II

Sr.				Examination Scheme				Examination Scheme			
No.	Course	Code	Scheme	The	eory	ory Tutorial		Total	Credit		
				Hour	Marks	Marks	Marks				
1	Financial Management (Management Core)	MBXXX	3-1-0	03	100	25	-	125	04		
2	Marketing Management (Management Core)	MBXXX	3-0-0	03	100	-	-	100	03		
3	Human Resource Management (Management Core)	MBXXX	3-0-0	03	100	-	-	100	03		
4	Research Methodology (Analytics Core)	MB XXX	3-1-0	03	100	25	-	125	04		
5	Descriptive Analytics, Data Visualization and Analytics (Analytics Core)	MBXXX	3-1-0	03	100	25	-	125	04		
6	Data Base and Mining for Managers	MBXXX	3-1-0	03	100	25	-	125	04		
7.	Business Communication Skills**	MBXXX	2-0-0	02	00			00	00		
TOTAL 20 600 100 - 700							22				
			Total (Credit					22		
** P	ass/fail										

SEMESTER III

Sr.				Examination Scheme					Credit
No.	Course	Code	Scheme	Th	eory	Tutorial	Practical	Total	
				Hour	Marks	Marks	Marks		
	Business								
1	Analytics	MB XXX	3-0-0	3	100	-	-	100	03
	(Analytics Core)								
	Marketing								
2	Analytics	MB XXX	3-0-0	3	100	-	-	100	03
	(Analytics Core)								
	Financial								
3	Analytics	MB XXX	3-0-0	3	100	-	-	100	03
	(Analytics Core)								
	Econometrics								
4	(Management	MBXXX	3-1-0	03	100	25	-	125	04
	Core)			_					
5	Elective-1*	MB XXX	3-0-0	3	100	-	-	100	03
6	Elective-2*	MB XXX	3-0-0	3	100	-	-	100	03
	Capstone Project								
7	(Management	MB XXX	0-0-4	-	-	-	50	50	02
	Core)								
	Total 18 600 25 50 675							21	
	Total Credit						21		
* Stı	* Student can opt any two elective subjects from the subject mentioned at below.								

List of Electives

Semester III	Subject					
	Legal Aspects of Business					
HR	Performance and Compensation Management					
	HR Analytics					
	Investment Analysis & Portfolio Management					
Finance	Quantitative Applications in Finance					
	Financial Modelling					
	Service Operation Management					
Operations & Supply Chain	Supply Chain Analytics					
	Gamification					
	Consumer Behaviour					
Marketing & Strategy	Advertising and Sales Promotion Management					
	Advanced Marketing Research (AMR)					
	Health Care Analytics					
	System Thinking and Business Dynamics					
IT & Digital Transformation	IT Project Management					
	Effective Dashboard and Story Telling Management					
	(via Power BI and other software)					

SEMESTER IV

Sr.			~ .			6 11			
No.	Course	Code	Scheme	Th	eory	Tutorial	Practical	Total	Credit
				Hour	Marks	Marks	Marks		
1	Advanced Business Analytics (Analytics Core)	MBXXX	3-0-0	03	100	-	-	100	03
2	Predictive Analytics (Analytics Core)	MBXXX	3-0-0	03	100	-	-	100	03
3	Managing Digital Transformation (Management Core)	MBXXX	3-0-0	03	100	-	-	100	03
4	Integrative Project and Dissertation	MBXXX	0-0-16	16	1	-	200	200	08
5	Elective 3*	MBXXX	3-0-0	03	100	-	-	100	03
6	Elective 4*	MBXXX	3-0-0	03	100	-	-	100	03
	Total 27 500 - 150 650							23	
Total Credit							23		
* Stu	* Student can opt any two elective subjects from the subject mentioned below.								

List of Electives

Semester IV Subject				
	Strategies and Skills for Successful Negotiation			
HR	Strategic Planning and Human Resource Management			
	Recruitment and Selection			
	Futures Options & Risk Management			
Finance	International Finance			
	Fintech			
	Green Business Management			
Operations & Supply Chain	Quality Management and Six Sigma			
	Operations Strategy			
Markatina & Stratagy	Sales and Distribution Management			
Marketing & Strategy	Digital Marketing			
IT & Digital	AI in Management			
Transformation	Open AI: Innovation Management			
Tansionnation	IT consultancy management			

Total Credits: 21+22+21+23 = 87

MBA Semester - I	Scheme	L	T	P	Credit
Business Statistics					
MG-XXX		3	1	0	04

1.	Course Outcomes (Cos): At the end of the course, students will be able to
CO1	Gain understanding of different statistical techniques for data analysis and decision-making with
	business perspective
CO2	Summarize and analyze statistical data to solve practical business-related problems
CO3	Interpret the relevance of statistical findings for solving business problems and decision making
CO4	Apply various tools to statistical data and use it for problem solving
CO5	Construct and interpret their own confidence intervals in businesses

2.	Syllabus	
	Inferential and Descriptive statistics	08 Hours
	Introduction to Statistics – Importance and Classification of Data - Measures of C	entral Tendency
	and Measures of Dispersion in Frequency Distribution – Presentation of data in th	e form of charts
	and graphs.	
	Probability Theory	09 Hours
	Classical, Objective & Subjective Approach - Probability Rules - Probability under	
	Statistical independence and dependence - Bayes Theorem - Probability Distributi	ions - Binomial,
	Poisson and Normal distribution.	
	Sampling Distribution	09 Hours
	Concept of Sampling and Sampling Distribution – Need and significance - Types	of Sampling -
	Concept of Standard Error - Sampling from normal and non-normal population - 0	Central Limit
	Theorem.	
	Hypotheses Testing	10 Hours
	Testing Hypotheses Significance level - Type I & Type II error - One tail and Two	tail tests -
	Hypothesis Testing of means: Z Test, T Test, Chi-Square Test - F distribution - An	
	(ANOVA) - One way and Two-way ANOVA - Introduction to simple regression as	nd correlation.
	Non-Parametric Methods	09 Hours
	Introduction to non-parametric methods - Kolmogorov Test - Median Test - Mann	
	U-Test - Wilcoxon T- Test - Friedman ANOVA - McNemar Test - Cochran's Q -Te	est.
	Tutorial	15 Hours
	Total Contact Time	60 Hours

^{*} Various activities related to subject will be included to engage 15 hours of tutorial.

3.	Book Recommended
1	Levin, R. I. (2011). Statistics for management. Pearson Education India
2	David, M. (2017). Statistics for managers, using Microsoft excel. Pearson Education India
3	Black, K. (2023). Business statistics: for contemporary decision making. John Wiley & Sons
4	Srivastava, T. N., & Rego, S. (2008). Statistics for management. Tata McGraw-Hill Education
5	Shenoy, G. V., Srivastava, U. K., & Sharma, S. C. (1988). Business statistics. New Age
	International
6	Herkenhoff, L., & Fogli, J. (2013). Applied statistics for business and management using Microsoft
	Excel. New York: Springer

MBA Semester - I	Scheme	L	T	P	Credit
Management Accounting		2	1	Λ	0.4
MG-XXX		3	1	U	04

1.	Course Outcomes (Cos): At the end of the course, students will be able to
CO1	Gain Foundational knowledge of various concepts of management accounting and its significance in the business
CO2	Understand the primary purpose of management accounting namely financial statement analysis and budgetary control
CO3	Analyze cost-volume-profit techniques to determine optimal managerial decisions
CO4	Prepare a master budget and demonstrate an understanding of the relationship between the components
CO5	Critically analyze relevant costs and provide viable solutions for internal decision making

2.	Syllabus	
	Introduction	10 Hours
	Nature, Scope and Tools of Management Accounting - Classification: Manage	ment Accounting,
	Financial Accounting and Cost accounting - Meaning, Scope and Classification of Cost	Costs - Absorption
	costing - Cost Sheet and Cost analysis.	
	Basic understanding of Management Accounting	10 Hours
	Meaning and definition - Comparison among Financial Accounting, Managemen	nt Accounting and
	Cost Accounting – Accounting Principles – concepts and conventions – Overview	ew of Accounting
	Process – Journal Entries, Ledger-Posting and Preparation of Trial Balance – Basic	overview of IFRS
	and Indian Accounting Standards (Ind.AS) - Understanding and Preparing Co	orporate Financial
	Statements – Corporate Profit & Loss Account and Corporate Balance Sheet (Vert	cical B/S only).
	Cost Accounting	08 Hours
	Meaning - Marginal Cost Equation - Contribution - Break-even Analysis - P/V ra	tio and Margin of
	Safety - Application of marginal costing and CVP in managerial problems – Intro	duction - Concept
	of ABC - Development of ABC system - Allocation of overheads under ABC - Tra	aditional Vs. ABC
	approach of designing a costing system - Cost Accounting: Meaning and defini	tion of cost, Cost
	concepts and classification, Costing Methods: Unit Costing, Process costing (exc	cluding equivalent
	unit of production).	
	Financial Statement Analysis and Inventory valuation	06 Hours
	Horizontal analysis - Vertical Analysis - Trend Analysis - Ratio Analysis - Casi	h Flow Statement
	FIFO, Weighted Average Method & LIFO (Preparation of stock register card or	
	Straight line method, written down value method Retrospective effect (Only Theoretical
	Perspective).	
	Responsibility Accounting	11 Hours
	Concept - Responsibility Centres - Goal Congruence - Managerial Efforts	
	Controllability and measurement of financial performance - Responsibility acco	unting in Service,
	Government and Non-profit organizations - Key Success Factors - Responsibility C	Centres - Measures
	of Overall Performance - Balance Scorecard and Key Performance Indicators.	
	Tutorial	15 Hours
	Total Contact Time	60 Hours

^{*} Various activities related to subject will be included to engage 15 hours of tutorial.

3.	Book Recommended
1	Khan M.Y. and Jain P.K. (2021), "Management Accounting", Tata McGraw-Hill, 8th Edition
2	Kaplan (2023), "Management Accounting", Kaplan Publication.
3	Charles T. Horngren., Walter T. Harrison and Harrison T.W. (1995), "Managerial Accounting",
	Pearson Education

MBA Semester - I	Scheme	L	T	P	Credit
Organizational Behaviour and Principles of					
Management		3	0	0	03
MG-XXX					

1.	Course Outcomes (Cos): At the end of the course, students will be able to
CO1	Understand the interdependencies of human behaviour and the organizational effectiveness
CO2	Understand, observe and analyze the behaviour within the organizational context
CO3	Develop skills to deal with the ongoing behavioural dynamics and organizational Culture resulting in increased efficiency
CO4	Identify and apply appropriate management techniques for taking decisions and managing various functions of organization
CO5	Apply theoretical knowledge in simulated and real-life settings

2.	Syllabus	
	Principles of Management	06 Hours
	Definitions and Functions of Management - Fayol's and Taylor's principles - Mi	intzberg's roles of
	managers - Managerial skills - Delegation and Decentralization - Decision making	3.
	Schools of Management Thoughts	07 Hours
	Scientific Management School - Administrative School - System School - Human	Relations School
	- Contingency School - Idea of Hawthorne Experiments.	
	Introduction to Organizational Behaviour	06 Hours
	Definition, Meaning, Scope and application of OB in Management - Contribution of	of other disciplines
	to OB - Emerging issues in OB - Models of OB.	
	Individual Behaviour and Group dynamics	09 Hours
	Concept and Meaning of Personality, Perception, Attitudes and Values - Motiva	ational Theories -
	Transactional Analysis - Group: Meaning and difference between Groups and Tea	ms, Types, Stages
	of Formation - Conflict Management - Stress and Negotiation - Theories of Leader	ership.
	Organizational Culture and Change	07 Hours
	Organizational Culture: Meaning and types - Organizational Change: Need, Proce	ess and Resistance
	to change - Organizational Development - OCTAPACE Culture: Concept and Din	nensions.
	Emerging Issues in Management	10 Hours
	Professionalization of Management in India - Creativity and Innovation - Japan	ese and American
	Management - Management by Objectives - Recent trends in Management - Char	nge Management -
	Crisis Management - Total Quality Management - Risk Management - Gle	obal Practices in
	Management.	
	Total Contact Time	45 Hours

3.	Book Recommended
1	Robbins, S. P., Judge, T. A., & Vohra, N. (2023). Organizational behaviour 18 Edition. MaakZoo
2	Udai Parek. & Sushama Khanna, (2018), "Understanding Organizational Behaviour", Oxford
	University Press, 4th Edition
3	Robert S. Fredman (2021). Understanding psychology 15 th Edition :McGreaw Hill.
4	Prasad, L. M. (2020). Principles and practice of management. Sultan Chand & Sons

MBA Semester - I		L	T	P	Credit
Managerial Economics	Scheme	2	Λ	Λ	0.2
MG-XXX		3	U	U	03

1.	Course Outcomes (Cos): At the end of the course, students will be able to
CO1	Understand how markets work, under the workings of supply, demand, and equilibrium
CO2	Understand elasticity of supply and demand, taxes, and subsidies
CO3	Elaborate on the pricing and selling decisions under different types of competitive pressures
CO5	Practically understand the problems with markets and what we can be done about it

2.	Syllabus	
	How Markets Work	08 Hours
	What is Economics - Microeconomics and Macroeconomics - Market Economics	nies – Production
	Possibility Frontier – The Demand Curve – Factors that Affect Demand – The Supp	ly Curve – Factors
	that Affect Supply	
	Demand, Supply and Equilibrium	10 Hours
	The Equilibrium – Divergence from the Equilibrium Price – Effects of Cha Environment on the Equilibrium – Demand and Supply: Meaning, Nature and C	
	Types - Price, Income and Cross Elasticity - Factors that affect the elasticity of determined the demand-supply Framework - Buyers and Sellers surplus - Government In market: The Welfare Loss	lemand – Taxes in
	Production and Cost	10 Hours
	The Production Function – Behavior of Average and Marginal Products – Lav	w of Diminishing
	Returns – Productivity in the Long Run – Scale and Scope of Production – Costs	
	Behavior of average and marginal costs – Relationship between costs and produced by the second of th	
	the long run	
	Markets	10 Hours
	Markets of Different types - Perfectly Competitive Market - Profits in a perfect - Profit - Profits -	
	Market - Perfect competition in the long run - Monopoly - Profits in a mono	
	Sources of Monopoly Power – The Multi-product firms – Monopolistic Competit	
	Different Models of Oligopoly – Why do markets Fail – Game Theory: a strategic	
	National Income	07 Hours
	Alternative concepts – Measurement and Determination of National income – Measurement and Control: Monetary and Fiscal Policies – Currency flows and esserate determination.	
	Total Contact Hours	45 Hours

3.	Book Recommended
1	D. M. Mithani, (2017), "Managerial Economics - Theory and Application", Himalaya Publishing
	House, Eighth Edition
2	Damodaran, (2006), "Managerial Economics", Oxford University Press.
3	Keat Banerjee, (2017), Managerial Economics: Economic Tools for Today's Decision Makers",
	Pearson Education, Seventh Edition

MBA Semester - I		L	T	P	Credit
Analytics in Operations Management MG-XXX	Scheme	3	1	0	04

1.	Course Outcomes (Cos): At the end of the course, students will be able to
CO1	Apply the concepts, principles, problems, and practices of operations management
CO2	Develop an understanding of operations management function in any organization
CO3	Understand the importance of productivity and competitiveness to organizations
CO4	Understand the importance of an effective production and operations strategy to an organization
CO5	Apply tools and techniques for managing the transformation process that can lead to competitive advantage

2.	Syllabus			
	Introduction to Operations Management	12 Hours		
	System and Function View of Organizations - Scope, Evolution and Future o			
	Operation Management – Process Design: Different Types of Manufacturing Process	ess with its Merits		
	and Demerits, Process Selection, Process Performance and Evaluation etc – Produ	uct Design: Types		
	of Products and Designing, Evaluation of Design			
	Forecasting and Capacity Design	11 Hours		
	Demand Forecasting: Need, Types, Objectives and Steps – Overview of Qualitative	e and Quantitative		
	Methods – Capacity Planning: Long Range, Types, Developing Capacity Alternative	ves – Overview of		
	MRP, MRP II and ERP – Facility Location: Theories, Steps in Selection, Location	Models.		
	Design of Product, Process and Work Systems	10 Hours		
	Facility Layout: Principles, Types, Planning Tools and Techniques - Work Study: Objective			
	Procedure – Method Study and Motion Study – Work Measurement and Producti	ivity - Measuring		
	Productivity and Methods to Improve Productivity			
	Scheduling and Project Management	12 Hours		
	Project Management: Scheduling Techniques - PERT, CPM - Scheduling - Work	Centers: Nature		
	Troject Management. Schedaning recliniques TERT, CTM Schedaning Work	Contors. I value,		
	Importance and Line Balancing (Theoretical Concept Only) – Priority Rules and T			
	Importance and Line Balancing (Theoretical Concept Only) – Priority Rules and T Floor Control – Flow Shop Scheduling – Johnson's Algorithm – Gantt Charts –	echniques – Shop		
	Importance and Line Balancing (Theoretical Concept Only) – Priority Rules and T	echniques – Shop		
	Importance and Line Balancing (Theoretical Concept Only) – Priority Rules and T Floor Control – Flow Shop Scheduling – Johnson's Algorithm – Gantt Charts –	echniques – Shop		

3.	Book Recommended
1	Jacobs, F. R., Chase, R.B. & Shankar, R. (2023), Operations and supply chain Management.
1	McGraw-Hill 17 th Edition
2	Jacobs, F. R., & Chase, R. B., (2020), Operations and supply chain management, McGraw-Hill, 15 th
2	edition
2	Russell, R. S., & Taylor-Iii, B. W., (2008), Operations management along the supply chain, John
3	Wiley & Sons
4	Bedi, K., (2013), Production and operations management, Oxford University Press 3rd Edition

MBA Semester - I		L	T	P	Credit
Business Computing and Prescriptive Analytics	Scheme	2	Λ	Λ	0.2
MG-XXX		3	U	U	03

1	Course Outcomes (Cos):
1.	At the end of the course, students will be able to
CO1	Gain a foundational understanding of Perspective Analytics & identify Business problems that can
COI	be addressed by Perspective Analytics
CO2	Apply analytical tools to analyse varying kinds of data and find underlying patterns
CO3	Identify problems on analysed data with data-driven optimization tools
CO4	Solve optimization problems using programming tools
CO5	Formulate a strategy to apply analytical tools to make real-world decisions

2.	Syllabus	
	Fundamental of Business Computing	20 Hours
	Introduction to IS: Equipping Organization with Effective Decision Making	g, Real-time data
	processing Transaction Processing System, Analytical tool support, Decision	Support System,
	Understanding Enterprise Systems, ERP	
	Introduction to Analytics in IS: Basic understanding and future, Introduction	to Programming
	Fundamentals: Data Types, Basic Operations, Logical Statements, Conditional Sta	
	Statements, Debugging and Error Handling, & Function, Introduction to	Object-Oriented
	Programming	
	Prescriptive Analytics Through Excel Modeling & Open source (R)	20 Hours
	Introduction to Prescriptive analytics, Introduction to R, R Fundamentals, R	
	Structures, Vectors, matrices, arrays, data frames, and lists, Packages, stats and	l lme4, Hands-on
	exercises, Built-in functions,	
	Introduction to spread sheeting modeling, Reference setting, solver, conditions, for	•
	MS Excel Modelling, Lookup, Index, Match, offset, Text functions, Data & Time	
	Introduction of the course, discussion about the project, introduction of data analy	-
	Data Analytics Lifecycle - various phases of a typical analytics lifecycle - Basic v	•
	Analysis with smart functionality, Sensitivity Analysis: Goal Seek Analysis, Data	
	management and its application. Extract transfer and Load (ETL) Process, Sta	
	Schema: Managerial Analysis, OLAP Analysis & Data Model, Managerial deci	sion modeling on
	Prescriptive Analytics	
	Discussion and case, situation-based Presentation	5 Hours
	Case analysis and discussion	
	Total Contact Hours	45 Hours

3.	Book Recommended
1	Laudon, K. C., & Laudon, J. P. (2017). Essentials of management information systems. Pearson.
2	Winston, W. (2019). Microsoft Excel 2019 Data analysis and business modeling. Microsoft Press.
3	Kabacoff, R. (2022). R in action: Data analysis and graphics with R and Tidyverse. Simon and Schuster.

MBA Semester - II	Scheme	L	Т	Р	Credit
Financial Management		2	1	0	04
MS-102		3	_	0	04

1.	Course Outcomes (Cos): At the end of the course, students will be able to
CO1	Understand the concepts of Time value of money and use of analytics in decision making
CO2	Gain foundational knowledge on Financial Management so as to take appropriate financial decisions under different business conditions
CO3	Evaluate and use analytics in investment decisions through Capital Budgeting
CO4	Analytics of cost of capital and capital structure to develop financial strategies
CO5	Analyze and evaluate working capital requirement and dividend policy decisions through relevant models

2.	Syllabus				
	Introduction to Financial Management	10 Hours			
	Concepts and terminologies of financial management, Scope and need of financial	cial management ,			
	Finance Functions , Time value of money , Use of analytics in Valuation c	oncepts , Recent			
	development in the domain of financial management				
	Capital Budgeting Decisions	11 Hours			
	Meaning, Nature, and Features of Capital Budgeting Decisions , Types of Invest	tment Decisions –			
	Analytics in Investment Evaluation Criteria , Concepts of Cost of Capital , Risk A	nalytics in Capital			
	Budgeting, Capital structure theories: NI, NOI, MM approach				
	Financing and Dividend Decisions 12 Hou				
	Financing decisions, Concept of leveraging, Analytics of Operating, Financial and Comb leverages, Usage and significance, Capital Markets, Sources of Long, Term financing, Analytic Asset-Based Financing: Leasing, Hire Purchase and Project Financing, Venture Capital Financial				
	Dividend Theories & Policies				
	Working Capital Management	12 Hours			
	Definition of Working capital , Principles of Working Capital Management , U	se of analytics in			
	Receivables Management and Factoring, Inventory management analytics, Cash managemen				
	Planning and financing of working capital				
	Tutorial	15 Hours			
	Total Contact Hours	60 Hours			

^{*} Various activities related to subject will be included to engage 15 hours of tutorial.

	3.	Book Recommended
	1	Khan, M. Y., & Jain, P. K. (2024). Financial Management Text and Problems, 7 th Edition
	2	Srivastava, R., & Misra, A. (2022). Financial Management
Ī	3	I.M. Pandey, (2021), Financial Management, Vikas Publishing house,12th edition
Ī	4	Van Horne, J. C., & Wachowicz Jr, J. M. (2014). Fundamentals of Financial Management

MBA Semester - II		L	T	Р	Credit
Marketing Management	Scheme	2	•	•	02
MS-104		3	U	0	03

1.	Course Outcomes (Cos): At the end of the course, students will be able to
CO1	Explain core concepts of marketing, basic fundamentals of marketing and marketing environment
CO2	Develop skills related to marketing research and apply the concepts of Segmentation , Targeting , Positioning
CO3	Understand consumer insight to develop effective marketing strategies
CO4	Understand Product, Price, Promotion and Place Strategies
CO5	Develop understanding related to Branding strategies and international marketing

2.	Syllabus	
	Introduction	07 Hours
	Introduction to Marketing, Core Concepts of Marketing, Scope of Marketing, 4F	s of Marketing ,
	Various Concepts in Marketing , Marketing and Customer Value , Corporate and E	Division Strategic
	Planning , Business Unit Strategic Planning , Product Planning	
	Marketing Insights and connecting with Customers	15 Hours
	Gathering Information and Scanning Environment, Internal Records and Marke	ting Intelligence ,
	Analysing Macro Environment , Demographic Environment , another Major Ma	cro Environment ,
	Marketing Research System , Role of Analytics in Marketing Research Process , An	alytics in Demand
	Forecasting , Levels of Market Segmentation , Basis for Segmenting Consumer Ma	rket and Business
	Market , Targeting , Positioning	
	Building Strong brand and Brand Management	11 Hours
	Consumer buying behaviour, Role and Scope of Brand, Brand Equity, Building and	Measuring Brand
	Equity using Marketing analytics , Branding Strategy , Use of Analytics in unders	tanding Customer
	Life Time Value, Customer Relationship Management (CRM), Overview of Busine	ess Market
	Product, Price, Promotion and Place Strategies	12 Hours
	Product Characteristics, Classifications and Differentiation , Product Life Cycle (P	LC) and strategies
	for new product, Pricing Concepts, Channel Decision: Distribution, Retailing,	Wholesaling and
	Logistics , Integrated Marketing Communication: Sales Promotion, Advertising,	Public Relations,
	Direct Marketing, Personal Selling: Analytics in Budget allocation, Designing and N	Managing Services
	etc. , Overview of International Marketing	
	Total Contact Hours	45 Hours

3.	Book Recommended
1	Kotler P, Keller K, Koshy A, Jha M (2017). Marketing management: A south Asian perspective, 14 th
	edition. Pearson Education India
2	Schiffman, L. G., Wisenblit, J., & Kumar, S. R. (2020). Consumer Behavior, 13 th edition By Pearson.
	Pearson Education India
3	Baines P., Fill C., Page K; (Adapted by Piyush K. Sinha), (2013), Marketing, Oxford Higher Education,
	Asian edition
4	Lamb, C. W., Hair, J. F., McDaniel, C., Summers, J., & Gardiner, M. (2013). MKTG2: 2nd Asia-Pacific
	edition. Cengage Learning Australia

MBA Semester - II	Scheme	L	T	Р	Credit
Human Resource Management		3	0	0	03
MS-106					

1.	Course Outcomes (Cos):
	At the end of the course, students will be able to
CO1	Gain an understanding of terminologies, theories and practices within the field of HRM
CO2	Develop competence and problem-solving skills related to human resources
CO3	Identify various methodologies used for human resources compensation
CO4	Evaluate HRM related social, cultural, ethical and environmental responsibilities and issues in
	global context
CO5	Apply innovative solutions to problems in the field of HRM

2.	Syllabus	
	Introduction to HRM	06 Hours
	Introduction, Meaning, Significance and Importance of HRM, Environmental influ	uences , Evolution
	, HRM , Objective: Functions , Overview of Strategic HRM , Process: Integrated HI	R Strategies ,
	Typical and Selecting, Role of Importance of HR Analytics	
	Pre-Selection and Selection Process	09 Hours
	HR Planning: factors, Barriers, Process, Job Analysis: Methods, Uses, Job Descrip	tion and Job
	Specification , Recruitment: Objective, Sources, Techniques, Process and evaluati	on (Qualitative &
	Quantitative), Selection, Placement and Induction: Procedures, Tests, Interviews	s, Placement and
	Induction Issues.	
	Human Resource Development	12 Hours
	Employee Training and Development: Process, Types, Evaluation and Feedback of	f training efforts,
	Implementing MDP , Career Planning & Development , Role, Challenges, Career r	nanagement
	Concept & process , Performance Appraisal (Qualitative & Quantitative): Concept	t, Objectives,
	Process & Techniques.	
	Compensation Management	08 Hours
	Concept , Component of Compensation , Factors and challenges of Compensation	n, Role of
	analytics in developing Compensation system , Reward systems: Terminologies, R	ole, Wage
	differentiation, Mechanism of Wages and Salary Administration, Executive Com	pensation Issues ,
	Fringe benefits , Overview of Separation	
	Industrial Relations	10 Hours
	Introduction, Meaning and Objective, Conditions for Healthy Industrial Relation	s , Trade unions:
	Functions, Role, types and Scope in future, Grievance Procedure and Disciplinary	
	Collective Bargaining: Essential Conditions, Process, Indian experience (case stud	ies) , Industrial
	Conflicts: Definition, Reasons, Resolution machinery , Worker's participation in N	lanagement.
	Total Contact Hours	45 Hours

3.	Book Recommended
1	Gary D and Varkkey B. (2020). Human resource management. 16 th edition, Pearson Education
	India
2	Aswathappa, K. E. M. A. L. (2023). Human resource management: Text and cases. 10 th Edition, McGraw-Hill
3	Seema Sanghi, (2014), "Human Resources Management", Vikas Publishing House, New Delhi, 2nd Edition
4	Pattanayak, B. (2020). Human resource management, 6 th edition. PHI Learning Pvt. Ltd

MBA Semester - I	Scheme	L	Т	Р	Credit
Research Methodology		_	_	0	24
MS-108		3	1	U	04

1.	Course Outcomes (Cos): At the end of the course, students will be able to
CO1	Gain a foundational understanding of research, including its significance, objectives, and the distinction between research methods and methodology.
CO2	Develop the skills necessary to create theoretical frameworks, to conduct a comprehensive literature review, and grasp the principles of research design.
CO3	Acquire knowledge in designing sampling methods, understanding measurement scales, and collecting data from various sources while minimizing errors.
CO4	Master statistical techniques to analyze and interpret data, and perform hypothesis tests.
CO5	Learn report writing skills related to research and producing high quality research reports.

1. Syllabus			
Introduction and Review of Literature	08 Hours		
Meaning, Objectives and Significance of Research, Research Methods vs Meth	Meaning, Objectives and Significance of Research, Research Methods vs Methodology, Research		
Approaches, Research Process, Criteria of Good Research, Writing Research Process	oposal.		
Identification and selection of the Research Problem , Techniques Involved in De	Identification and selection of the Research Problem , Techniques Involved in Defining a Problem.		
Review of the Literature: Searching the Existing Literature , Developing a Theor	etical Framework ,		
Developing a Conceptual Framework , Defining Construct and Variables.			
Research Design	07 Hours		
Research Design: Meaning, Need, Types, Features, and Important Concepts			
Primary Data: Survey research, Observation Method, and Experimental Research	١.		
Secondary Data: Advantages, Disadvantages, Objectives, and Classification.			
Sampling and Data Collection, Analysis and Interpretation	22 Hours		
Design of Sampling: Introduction, Sampling and Non-sampling Errors, Types, and	Sample Survey vs		
Census Survey			
Measurement and Scaling: Analytics used in Qualitative and Quantitative Data	, Classifications of		
Measurement Scales, Goodness of Measurement Scales, Sources of Error	Measurement Scales, Goodness of Measurement Scales, Sources of Error in Measurement,		
Techniques of Developing Measurement Tools, Scaling, Scale Classification	on Bases, Scaling		
Techniques, and Selection of Appropriate Method for Data Collection			
Data Analysis (Qualitative and Quantitative)			
Report Preparation	03 Hours		
Significance of Report Writing , Steps in Report Writing , Format of Research	Report , Types of		
Reports , Precautions for Writing Research Reports.			
Case Study Research	05 Hours		
Introduction, Types of Case Study Research, Basic types of Designs for Case Stud	ies , Characteristics		
of Case Study Research , Advantages of Case Study Research , Limitations of Case	se Study research ,		
Developing Case Study Format for Data collection, Analysis in Case Study Resear	ch , Reporting Case		
Studies , Examples			
Tutorials will be based on the coverage of the above topics separately	15 Hours		
Total Contact Hours	60 Hours		

3.	Tutorials
1	Practical aspects of Bibliometric Analysis
2	Practical aspects of Meta Analysis
3	Questionnaire Designing
4	Coding and Cross tabulation of data
5	Hands on training of SPSS software
6	Hands on training of EViews software
7	Hands on Training of PLS SEM software

4.	Book Recommended
1	William G. Zikmund (2013), Business Research Methods, Choudhary Press.9th Edition
2	C R Kothari and Gaurav Garg (2019), Research Methodology Methods and Techniques, New Age
	International (P) Ltd. Publishers, 4th Edition
3	John W. Creswell and J. David Creswell (2023), Research Design Qualitative, Quantitative, and Mixed
	Methods Approaches, SAGE Publications Inc., 6th Edition
4	Naresh K. Malhotra and Satyabhusan Das (2019), Marketing Research, Pearson Education, Latest
	Edition
5	Yin Robert K. (2018), Case Study Research and Applications: Design and Methods, Sage Publications,
	6th Edition
6	Yin R. K. (2017), Applications of Case Study Research, Sage Publications, USA, 6th Edition
7	Yin R. K. (2003), Case Study Research, Sage Publications, USA, 3rd Edition

MBA Semester - II		L	Т	Р	Credit
Descriptive Analysis & Data Visualization	Scheme	2	1	0	04
MS-110		3	1	U	04

1.	Course Outcomes (COs):
	At the end of the course, students will be able to
CO1	Analyze and summarize data using descriptive statistics, including central tendency and dispersion
	measures.
CO2	Perform exploratory data analysis (EDA) to prepare and transform datasets for deeper insights.
CO3	Create effective data visualizations using various techniques and tools to communicate findings.
CO4	Utilize popular data visualization tools to design interactive dashboards and reports.
CO5	Apply descriptive and exploratory analysis techniques to enhance business decision-making.

2.	Syllabus	
	Descriptive Analysis	14 Hours
	Definition and Importance of Descriptive Analysis; Differences between Descriptive Prescriptive Analytics; Qualitative vs. Quantitative Data; Measures of Dispersion of Control	ve, Predictive, and ersion; Skewness, Random Variable, and Continuous riptive Statistics in ts O9 Hours ata Cleaning and sivariate Analysis Bivariate Analysis
	Correlation vs. Causation, Scatter Plots and Cross-Tabulations; Multivariate And	alysis: Techniques
	for Analyzing Multiple Variables; Principal Component Analysis (PCA) Overview	
	Data Visualisation - Introduction and Principles Importance of Visualization in Data Analysis; Industry Best Practices and Commo	10 Hours
	Visualizations Charts: Bar, Line, Pie, Bullet Graphs, Sankey, and Area Ovisualizations: Heatmaps, Treemaps, and Geographic Maps; Storytelling with Narrative with Visualizations; The Role of Context in Data Interpretation; To Visualization Methods; Constructing and Evaluating Design Solution and Design Sin Data Visualisation; Ethics for Data Visualisation	Data: Creating a
	Tools for Data Visualisation	12 Hours
	Overview of Popular Tools (Tableau, Power BI, Qlik, Google Looker Studio, Spread Wrapper; Criteria for Selecting the Right Tool; Basic and Intermediate Features (TBI): Creating Dashboards and Interactive Visual Reports; Introduction to Visual Python Libraries (Matplotlib, Seaborn); R Visualization Libraries (ggplot2, tidyvers Cases and Examples	dsheets, etc); Data ableau and Power alization Libraries
	Tutorial	15 Hours
	Power BI: Create a customizable interactive dashboard to visualize key metrics (stime, regional performance, and product comparisons), trends, geospatial mapping comparisons relevant to a Product-Sales dataset. Participants will learn to filter a interactively.	ing, and

Total Contact Hours	60 Hours
user engagement. Participants will implement filters and visual storytelling technic	ques.
Tableau: Create dynamic dashboards that display website performance metrics, tr	raffic trends, and
derive insights from textual data.	
R: Conduct text analysis and sentiment analysis to create visualizations. Participan	nts will learn to
between various parameters for organisational training related datasets.	
Python: Generate visualizations that highlight performance trends and correlation	n analyses

^{*} Various activities related to the subject will be included to engage 15 hours of tutorial.

3.	Book Recommended
1	Hwang, J., & Yoon, Y. (2021). Data Analytics and Visualization in Quality Analysis Using Tableau. CRC
	Press
2	Wilke, C. O. (2019). Fundamentals of data visualization: A Primer on Making Informative and
	Compelling Figures. O'Reilly Media
3	Alexander, M., Decker, J., & Wehbe, B. (2014). Microsoft Business Intelligence Tools for Excel
	analysts. John Wiley & Sons
4	Alexander, M., & Walkenbach, J. (2013). Excel Dashboards and Reports
5	Wickham, H., Çetinkaya-Rundel, M., & Grolemund, G. (2023). R for Data Science. O'Reilly Media,
	Inc.
6	Jones, J. S., & Goldring, J. (2022). Exploratory and descriptive statistics. Sage Publications.
7	Dowdy, S., Wearden, S., & Chilko, D. (2004). Statistics for research (3rd ed.). Wiley-Interscience.
8	Knaflic, Cole Nussbaumer. (2015) Storytelling with Data,

MBA Semester - II		L	Т	Р	Credit
Data Base and Mining for Managers	Scheme	2	1	0	04
MS-112		3		U	04

1.	Course Outcomes (COs):
	At the end of the course, students will be able to
CO1	Understand database systems, concepts, and query language.
CO2	Understand the E-R model and the relational model.
CO3	Apply SQL Queries using various basic and advanced concepts of RDBMS.
CO4	Understand fundamental data mining concepts, principles, and terminology
CO5	application of data mining and databases in the business world (learning through cases)

2.	Syllabus	
	Introduction to Database Management	17 Hours
	Basics of Database: Introduction and applications of DBMS, Purpose of databa	se, View of Data,
Database Languages, Database architecture, Database users and DBA;		
	Relational Model: Structure of Relational Databases, Database Schema, Keys (in	detail), Relational
	Operations and Relational Algebra;	
	Entity Relationship Model: Basic Concepts and Definitions, Constraints, Er	ntity Relationship
	Diagram, Weak Entity Sets, Extended E-R Features, Conversion of ER diagra	am into relations,
	Learning ER model with cases; Normalization & application of normalization	
	Introduction to SQL and NoSQL DB and DB as a Service (DBS)	10 Hours
	NoSQL Databases: Introduction, Properties of NoSQL Databases, Types of NoSQl	Databases;
	SQL: Introduction to SQL, Data Definition of SQL, Structure of SQL Queries, Basi	ic SQL Operations
	(Rename, String Operations, Order by, Where Clause), Set Operations, Null \	
	Functions, Nested Subqueries, Modification of Database, JOIN Expressions,	
	Constraints, Data Types and Schemas, Authorization, DB as a Service (DBS), S	Simulation of SQL
	through R language, Application of SQL in business industry	
	Data Mining Basics	18 Hours
	From database to data mining why?, Data Mining Definition; KDD process;	
	Architecture of Datawarehouse, DataMart, Usages of Datawarehouse in the	
	Simulation of Data Warehouse; Data Pre-processing: Data Cleaning, Data	- ·
	Reduction, Data Transformation; Data Cube Technology; Exploratory data	, , ,
	Supervised and Unsupervised Learning; Regression Analysis; Market Basket Analysis	
	Procedure, Application of Market Basket Analysis; Introduction of classification	
	Information Gain Theory, Entropy; Introduction to Different Methods in Classification in Rusings Medida, Outlier, Anglesis	=
	Approaches only), Usages of Classification in Business Worlds; Outlier Analysis Cluster; Introduction to Text Mining, Tokens, Social Media Analysis; Usages of Classification in Business Worlds; Outlier Analysis	
	Marketing, Finance, HR, etc.	Di Data Willing III
	Tutorial	15 Hours
	Total Contact Hours	60 Hours
L.,.,	aus activities related to the subject will be included to engage 15 hours of tutorial	30

^{*} Various activities related to the subject will be included to engage 15 hours of tutorial.

3.	Book Recommended
1	Silberschatz, A., Korth, H. F., & Sudarshan, S. (2019). Database system concepts (6th ed.). McGraw-
	Hill.
2	Data Mining: Concepts and Techniques (The Morgan Kaufmann Series in Data Management
	Systems), by Jiawei Han (Author), Jian Pei (Author), Hanghang Tong (Author)
3	Coronel, C., & Morris, S. (2019). Database systems (7th ed.). Cengage Learning.
4	Hand, D. J., Mannila, H., & Smyth, P. (2001). Principles of data mining. Cambridge, MA: MIT Press.
5	Berry, M. J. A., & Linoff, G. S. (2000). Mastering data mining. New York, NY: Wiley.
6	Delmater, J. R., & Hancock, J. (2001). Data mining explained. New York, NY: Digital Press.
7	Gupta, G. K. (2018). Database management systems. McGraw Hill Education.

MBA Semester - II		L	Т	Р	Credit
Business Communication Skills	nication Skills Scheme		•	•	02
MS-114		2	U	U	02

1.	Course Outcomes (Cos): At the end of the course, students will be able to
CO1	Demonstrate effective verbal and non-verbal communication skills in professional settings.
CO2	Write clear, concise, and persuasive business documents tailored to various audiences.
CO3	Analyze and synthesize information from business texts to enhance comprehension and decision-making.
CO4	Collaborate effectively within teams to resolve conflicts and foster positive working relationships.
CO5	Deliver engaging presentations using effective visual aids and confident speaking techniques.

2.	Syllabus				
	Foundations of Business Communication	10 Hours			
	Introduction to Business Communication: Importance for Managers, Ty	pes of Business			
	Communication, Communication Process and Models, Barriers to Effective	Communication,			
	Cultural Considerations in Communication, Effective Speaking Skills, Public Skills, Public Speaking Skills, Public Sk	aking Techniques,			
	Active Listening, Understanding Non-Verbal Cues, Techniques for Effective Reading	ng, Identifying Key			
	Information, Summarizing and Analyzing Business Texts				
	Writing for Business Success	10 Hours			
	Principles of Clear and Concise Writing, Types of Business Documents (Emails, Reports, Proposals,				
	Quotation, Memos, minutes of meetings), Tailoring Content for Different Audiences, Editing and				
	Proofreading Techniques, Using Visual Aids Effectively, Strategies for Crafting Persuasive Messages				
	Influencing Techniques, Practical Writing Exercises				
	Advanced Communication Skills	10 Hours			
	Building Effective Work Relationships, Conflict Resolution Strategies and Role	e of Analytics, -			
	Facilitating Team Communication, Designing Visual Aids, Delivery Techniques (El	ngagement, Voice			
	Modulation), Handling Audience Questions, Group Presentations, Se	elf-Reflection on			
	Communication Development				
	Total Contact Hours	30 Hours			

3.	Book Recommended
1	Mehra, P. (2016). Business communication for managers (2nd ed.). Pearson Education.
2	Board of Editors. (2013). Vibrant English. Orient Blackswan Private Limited - New Delhi.
3	Wheten, D. A., & Cameron, K. S. (2021). Developing management skills (9th ed.). Pearson
	Publication.
4	Pal, R. (2012). Essentials of business communication. Sultan Chand & Sons.
5	Kaul, A. (2015). Effective business communication. Prentice Hall India Learning Pvt. Ltd