

C.K. COLLEGE OF ENGINEERING & TECHNOLOGY

(An Autonomous Institution)

Approved by AICTE, Affiliated to Anna University & Recognized under UGC section 2(f) & 12(B)
Accredited by NAAC with 'A' grade and ISO 9001:2015 Certified Institution

Jayaram Nagar, Chellangkuppam, Cuddalore-607 003, Tamil Nadu, India.



MASTER OF BUSINESS ADMINISTRATION

CURRICULUM AND SYLLABI I & II SEMESTER

(UNDER CKCET AUTONOMOUS
REGULATION)

REGULATION 2026

Academic Year 2026-27 onwards

POSTGRADUATE CURRICULUM

Department : Master of Business Administration

Programme : M.B.A.

Regulations : 2026, with effect from the AY 2026 - 27 to all the students of Post Graduate Programme

OVERVIEW OF CREDITS

Semester / Category	ES (PC)	ES (PE)	SD	Total
Semester - I	28	-	02	30
Semester - II	28	-	02	30
Semester - III	10	18	02	30
Semester - IV	-	-	16	16
Total Credits	66	18	22	106
Percentage (%)	62.26	16.98	20.75	100

CATEGORY OF COURSES

P	Laboratory Course	T	Theory Course
SD	Skill Development	MC	Mandatory Course
PW	Project Work	SLC	Self-Learning Course
ES (PC)	Engineering Science (Programme Core)	ES (PE)	Engineering Science (Programme Elective)

Approved by
Academic Council Meeting
No.: 01 Dated: 21.4.26

Recommended by
Board of Studies of MBA Dept.
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Knowledge and Attitude Profile (WK)

The Knowledge and Attitude Profile (WK) is intended to define the essential knowledge base and professional attitudes expected of program graduates. It ensures alignment with OBE principles and equips graduates with the capability to effectively analyze and address complex engineering problem.

WK1: A systematic, theory-based understanding of the natural sciences applicable to the discipline and awareness of relevant social sciences.

WK2: Conceptually-based mathematics, numerical analysis, data analysis, statistics and formal aspects of computer and information science to support detailed analysis and modelling applicable to the discipline.

WK3: A systematic, theory-based formulation of engineering fundamentals required in the engineering discipline.

WK4: Engineering specialist knowledge that provides theoretical frameworks and bodies of knowledge for the accepted practice areas in the engineering discipline; much is at the forefront of the discipline.

WK5: Knowledge, including efficient resource use, environmental impacts, whole-life cost, reuse of resources, net zero carbon, and similar concepts, that supports engineering design and operations in a practice area.

WK6: Knowledge of engineering practice (technology) in the practice areas in the engineering discipline.

WK7: Knowledge of the role of engineering in society and identified issues in engineering practice in the discipline, such as the professional responsibility of an engineer to public safety and sustainable development.

WK8: Engagement with selected knowledge in the current research literature of the discipline, awareness of the power of critical thinking and creative approaches to evaluate emerging issues.

WK9: Ethics, inclusive behavior and conduct. Knowledge of professional ethics, responsibilities, and norms of engineering practice. Awareness of the need for diversity by reason of ethnicity, gender, age, physical ability etc. with mutual understanding and respect, and of inclusive attitudes.

Program Outcomes (POs):

PO1: Management Knowledge: Apply knowledge of management principles, functional areas, and business theories to solve organisational problems

PO2: Analytical & Quantitative Skills: Use statistical, financial, and data analytics tools for structured business analysis and decision-making

PO3: Critical Thinking & Problem Solving: Identify, analyse, and evaluate complex business problems using frameworks and case-based reasoning.

PO4: Communication & Leadership: Demonstrate effective written, verbal, and digital communication skills and exhibit leadership in team and professional settings.

PO5: Ethics, Sustainability & Social Responsibility: Apply ethical principles, CSR frameworks, and ESG considerations in business decisions

PO6: Technology & Innovation: Leverage emerging technologies including AI, data platforms, and digital tools to drive business innovation and competitive advantage

Program Educational Objectives

PEO1: To have a thorough understanding of the core aspects of the business.

PEO2: To provide the learners with the management tools to identify, analyze and create business opportunities as well as solve business problems.

PEO3: To prepare them to have a holistic approach towards management functions.

PEO4: To inspire and make them practice ethical standards in business.

Program Specific Outcomes.

PSO1: Ability to demonstrate proficiency in Business Management, Entrepreneurship, and Value Creation.

PSO 2: Ability to analyze principles from multiple disciplines to develop innovative solutions for complex business challenges.

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Semester – I							
S. No.	Course Code	Course Name	Course Type	Periods/Week		Credits	Category
				L-T-P	TCP		
1	26MB101T	Principles of Management	T	4-0-0	4	4	ES (PC)
2	26MB102T	Managerial Economics	T	4-0-0	4	4	ES (PC)
3	26MB103T	Accounting for Decision Making	T	3-1-0	4	4	ES (PC)
4	26MB104T	Statistics for Managers	T	3-1-0	4	4	ES (PC)
5	26MB105T	Business Law & Ethics	T	4-0-0	4	4	ES (PC)
6	26MB106T	Organisational Behaviour	T	4-0-0	4	4	ES (PC)
7	26MB107T	Data Analytics for Business Decisions	T	4-0-0	4	4	ES (PC)
8	26MB108P	Business Communication Laboratory	P	0-0-4	4	2	SD
9	---	Business Analytics – Foundation	---	---	2	NC	MC
10	---	Self - Learning Course – I	---	---	---	NC	SLC
Total Credits					34	30	

Semester – II							
S. No.	Course Code	Course Name	Course Type	Periods/Week		Credits	Category
				L-T-P	TCP		
1	26MB201T	Financial Management	T	3-1-0	4	4	ES (PC)
2	26MB202T	Operations & Supply Chain Management	T	3-1-0	4	4	ES (PC)
3	26MB203T	Human Resource Management	T	4-0-0	4	4	ES (PC)
4	26MB204T	Marketing Management	T	4-0-0	4	4	ES (PC)
5	26MB205T	Predictive Analytics & AI Applications in Business	T	3-1-0	4	4	ES (PC)
6	26MB206T	Integrated Research Methods	T	3-1-0	4	4	ES (PC)
7	26MB207T	Entrepreneurship Development	T	4-0-0	4	4	ES (PC)
8	26MB208P	Management Information Systems (MIS) LAB	P	0-0-4	4	2	SD
9	---	Business Analytics – Intermediate & Applied	---	---	2	NC	MC
10	---	Self - Learning Course – II	---	---	---	NC	SLC
Total Credits					34	30	

Semester – III							
S. No.	Course Code	Course Name	Course Type	Periods/Week		Credits	Category
				L-T-P	TCP		
1	26MB301T	Strategic Management	T	4-0-0	4	4	ES (PC)
2	26MB302T	International Business Environment	T	4-0-0	4	4	ES (PC)
3		Major 1 – Paper 1 (Programme Elective)	T	3-0-0	3	3	ES (PC)
4		Major 1 – Paper 2 (Programme Elective)	T	3-0-0	3	3	ES (PC)
5		Major 1 – Paper 3 (Programme Elective)	T	4-0-0	4	4	ES (PC)
6		Major 2 – Paper 1 (Programme Elective)	T	3-0-0	3	3	ES (PC)
7		Major 2 – Paper 2 (Programme Elective)	T	3-0-0	3	3	ES (PC)
8		Major 2 – Paper 3 (Programme Elective)	T	4-0-0	4	2	SD
9	26MB309P	Business Simulation Lab	P	0-0-4	4	2	MC
10	26MB311P	Summer Internship	P	0-0-0	0	2	SLC
11	---	Business Analytics – Advanced & Strategic	---	---	2	NC	MC
12	---	Self - Learning Course – III	---	---	---	NC	SLC
Total Credits					33	30	

Semester – IV							
S. No.	Course Code	Course Name	Course Type	Periods/Week		Credits	Category
				L-T-P	TCP		
1	26MB108P	Digital Business & Technology Laboratory	L	0-0-4	4	2	ES (PC)
2	26MB209P	Business Data Lab (Power BI / Basic SQL)	L	0-0-4	4	2	ES (PC)
3	26MB403P	Project Work	PW	0-0-24	24	12	ES (PC)
Total Credits					32	16	

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LIST OF PROGRAMME ELECTIVE COURSES: FINANCE ELECTIVES

S. No.	Course Code	Course Name	Course Type	Periods/Week		Credits	Category
				L-T- P	TCP		
1	26MB311T	Security Analysis and Portfolio Management	T	3-0-0	3	3	ES (PE)
2	26MB312T	Merchant Banking and Financial Services	T	3-0-0	3	3	ES (PE)
3	26MB313T	Derivatives Management	T	3-0-0	3	3	ES (PE)
4	26MB314T	Financial Modelling	T	3-0-0	3	3	ES (PE)
5	26MB315T	Capital and Financial Markets	T	3-0-0	3	3	ES (PE)
6	26MB316T	Fintech and Blockchain Applications in Finance	T	3-0-0	3	3	ES (PE)
7	26MB317T	International Financial Management	T	3-0-0	3	3	ES (PE)
8	26MB318T	Applications of AI and ML in Finance	T	3-0-0	3	3	ES (PE)

LIST OF PROGRAMME ELECTIVE COURSES: FINANCE ELECTIVES

S. No.	Course Code	Course Name	Course Type	Periods/Week		Credits	Category
				L-T- P	TCP		
1	26MB321T	Consumer Behaviour & Neural Marketing	T	3-0-0	3	3	ES (PE)
2	26MB322T	Advertising Management and Sales Promotion	T	3-0-0	3	3	ES (PE)
3	26MB323T	Brand Management	T	3-0-0	3	3	ES (PE)
4	26MB324T	Services Marketing	T	3-0-0	3	3	ES (PE)
5	26MB325T	Customer Relations Management	T	3-0-0	3	3	ES (PE)
6	26MB326T	Retail Marketing	T	3-0-0	3	3	ES (PE)
7	26MB327T	Digital Marketing	T	3-0-0	3	3	ES (PE)
8	26MB328T	Marketing Analytics	T	3-0-0	3	3	ES (PE)

LIST OF PROGRAMME ELECTIVE COURSES: HUMAN RESOURCE ELECTIVES

S. No.	Course Code	Course Name	Course Type	Periods/Week		Credits	Category
				L-T- P	TCP		
1	26MB331T	Industrial and Labour Relations	T	3-0-0	3	3	ES (PE)
2	26MB332T	Emotional Intelligence for Managerial Effectiveness	T	3-0-0	3	3	ES (PE)
3	26MB333T	Compensation and Rewards Management	T	3-0-0	3	3	ES (PE)
4	26MB334T	Strategic Human Resource Management	T	3-0-0	3	3	ES (PE)
5	26MB335T	Talent Management	T	3-0-0	3	3	ES (PE)

6	26MB336T	Negotiation and Conflict Management	T	3-0-0	3	3	ES (PE)
7	26MB337T	International HRD	T	3-0-0	3	3	ES (PE)
8	26MB338T	HR Analytics	T	3-0-0	3	3	ES (PE)

LIST OF PROGRAMME ELECTIVE COURSES: BUSINESS ANALYTIC ELECTIVES

S. No.	Course Code	Course Name	Course Type	Periods/Week		Credits	Category
				L-T-P	TCP		
1	26MB341T	Enterprise Resource Planning	T	3-0-0	3	3	ES (PE)
2	26MB342T	Data Analytics with R Programming	T	3-0-0	3	3	ES (PE)
3	26MB343T	Business Analytics Using Python	T	3-0-0	3	3	ES (PE)
4	26MB344T	Data Visualization	T	3-0-0	3	3	ES (PE)
5	26MB345T	Multivariate Data Analysis	T	3-0-0	3	3	ES (PE)
6	26MB346T	Blockchain Technology	T	3-0-0	3	3	ES (PE)
7	26MB347T	Data Mining for Business Intelligence	T	3-0-0	3	3	ES (PE)
8	26MB348T	Business Intelligence, Big Data, Cloud Computing	T	3-0-0	3	3	ES (PE)

LIST OF PROGRAMME ELECTIVE COURSES: OPERATIONS ELECTIVES

S. No.	Course Code	Course Name	Course Type	Periods/Week		Credits	Category
				L-T-P	TCP		
1	26MB351T	Project Management	T	3-0-0	3	3	ES (PE)
2	26MB352T	Total Quality Management	T	3-0-0	3	3	ES (PE)
3	26MB353T	Logistics Management	T	3-0-0	3	3	ES (PE)
4	26MB354T	Materials Management	T	3-0-0	3	3	ES (PE)
5	26MB355T	Services Operations Management	T	3-0-0	3	3	ES (PE)
6	26MB356T	Supply Chain Management	T	3-0-0	3	3	ES (PE)
7	26MB357T	Product Design	T	3-0-0	3	3	ES (PE)
8	26MB358T	Industry 5.0	T	3-0-0	3	3	ES (PE)

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Semester - I



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26MB101T	Principles of Management	Category	L	T	P	C
		ES (PC)	4	0	0	4
Course Objectives: • Understanding the evolution and contributions of management thought. • Outlining the evolving concepts in managerial planning and scientific decision making. • Analyzing the role of organizing with other managerial functions. • learn the application of overall control for effective management. • Learning fundamentals of verbal and non- verbal communication skills.						
Introduction Scope of management; Functions of a manager; Evolution of management thought - Contributions made by Taylor, Gantt, Gilbreth, Fayol, Weber, Elton Mayo, Chester Bernard, Rensis Likert; Approaches to Management- Operations Research/Mathematical School/ Decision Theory approach, Systems Approach, McKinsey's 7-S Approach						
Planning and Organizing Planning -Types of plans; steps in planning and process of planning; Setting objectives; Concept and process of Managing by Objectives; Nature and purpose of strategies and policies; Strategic planning process; SWOT analysis; Portfolio matrix; Organizing - Process of organizing; Bases of departmentation; Authority & power - concept & distinction; Line& Staff Authority; Delegation and Decentralisation; Span of Management - factors determining effective span-situational approach.						
Staffing and Control Staffing - Position requirements and Job design, Recruitment and selection strategies, Skills and Personal characteristics needed in managers. Control – control process; Benchmarking; Dimensions or Types of Control - Feed forward control, Concurrent Control (Real Time Information & Control), Feedback Control; Techniques of Control - Brief review of Traditional Techniques & Modern Techniques of Control.						
Fundamentals Communication Importance of Communication; Forms of Communication; Communication Network of the Organization; Process of Communication, Oral Communication; Barriers and Gateways in Communication; Listening; Feedback; body language; non-verbal; facial expressions; communication and emotional intelligence; creativity in oral communication persuasive communication; communication through organizing various events like- conferences; committee meeting; press meets; seminars; fests.						
Written Communication Writing an Effective Report- Stages of Writing; Composing Business Messages; Style and Tone; Five Ws and one H of Report Writing; Planning and Types of Reports; creativity in written communication; Writing Commercial Letters; Business Letter Format; Types of Letter – Routine Business Letters, Sales Letters, Resume and Job Applications, Business Memos, E- Mail Messages, Proposals, Technical Article Circulars; drafting notices; handling complaints; evaluating interview performance; articles; formal invitations; proforma for performance						
Total periods: 60						

References:

1. Dubrin, A. J. (2016). Essentials of management (10th ed.). Thomson Southwestern.
2. Robbins, S. P., Judge, T. A., & Vohra, N. (2019). Organisational behaviour (17th ed.). Pearson.
3. Koontz, H., & Weihrich, H. (2015). Essentials of management (10th ed.). Tata McGraw-Hill.
4. Kouzes, J. M., & Posner, B. Z. (2023). The leadership challenge (7th ed.). Wiley.
5. Chhabra, T. N. (2019). Principles of management (4th ed.). Sun India Publications. Testing, Baldev Raj, T. Jayakumar, M. Thavasimuthu, 2002, Hardcover, Woodhead.

E-Resources:

1. NPTEL: Management and Organisational Behaviour - <https://nptel.ac.in>
2. Harvard Business Review - Management & Leadership - <https://hbr.org>
3. IIM Case Repository - <https://iimahd.ernet.in/case>
4. Coursera: Inspiring and Motivating Individuals, University of Michigan
5. MIT Open Courseware - Leadership and OB - <https://ocw.mit.edu>

COURSE OUTCOMES:

At the end of the course, students will be able to:	
CO1	Explain and apply classical and modern management theories to Indian organizational contexts
CO2	Design planning frameworks (MBO, OKR) and decision-making models for real business problems
CO3	Analyze individual and group behaviour using motivation and personality theories.
CO4	Evaluate leadership styles and their contextual effectiveness in Indian organizations.
CO5	Design and assess strategies for organizational culture change and development.

26MB102T	Managerial Economics	Category	L	T	P	C
		ES (PC)	4	0	0	4
Course Objectives: - To understand the fundamental concepts and theoretical frameworks covered in Demand Analysis & Elasticity. - To apply analytical tools and models related to Production & Cost Analysis. - To analyse the concepts of Market Structures & Competitive Behaviour in business contexts. - To evaluate strategies and frameworks pertaining to Pricing Strategies & Revenue Management. - To synthesise knowledge of Macroeconomics, Business Environment & India Stack for managerial decision-making.						
Demand Analysis & Elasticity Law of Demand, demand determinants, demand function. Price elasticity (PED), income elasticity (YED), cross elasticity (XED). Arc and point elasticity. Demand forecasting: survey, trend analysis, regression. Consumer theory: utility analysis, indifference curves, budget constraint, consumer equilibrium.						
Production & Cost Analysis Production function: Law of Variable Proportions, Returns to Scale. Isoquants and isocost lines. Economies of scale (internal and external). Cost concepts: fixed, variable, total, average, marginal. Short-run vs. long-run cost curves. Break-even analysis. Cobb-Douglas production function.						
Market Structures & Competitive Behaviour Perfect competition: equilibrium, price determination. Monopoly: price discrimination (1st, 2nd, 3rd degree), deadweight loss. Monopolistic competition: product differentiation. Oligopoly: kinked demand curve, Cournot model, Bertrand model. Game theory basics: Nash equilibrium, Prisoner's Dilemma.						
Pricing Strategies & Revenue Management Pricing methods: cost-plus, marginal cost, target return. Dynamic pricing, peak-load pricing, price leadership. Bundling and tie-in sales. Transfer pricing in MNCs. Yield management in airlines and hotels. Dorfman-Steiner theorem.						
Macro Economics, Business Environment & India Stack National income: GDP, GNP, NNP. Business cycle phases. Keynesian macroeconomics. Fiscal policy: RBI tools (repo rate, CRR, SLR, OMO). Inflation: demand-pull, cost-push, WPI, CPI. Balance of Payments. India Stack: UPI, ONDC, Account Aggregator, DigiLocker. PM GatiShakti Master Plan.						
						Total periods: 60

References:

1. Dwivedi, D. N. (2019). Managerial economics: Theory and applications (8th ed.). Vikas Publishing.
2. Samuelson, P. A., & Nordhaus, W. D. (2011). Economics (19th ed.). Tata McGraw Hill.
3. Mankiw, N. G. (2017). Principles of economics (8th ed.). Thomson Learning.
4. Keat, P., Young, P., & Erfle, S. (2014). Managerial economics (7th ed.). Pearson.
5. Singh, R. (2024). Indian economy (16th ed.). McGraw Hill.
6. Sankaran, S. (2016). Business economics (8th ed.). Margham Publications.

E-Resources:

1. NPTEL: Managerial Economics - <https://nptel.ac.in>
2. RBI Data Warehouse - <https://dbie.rbi.org.in>
3. MOSPI National Statistics - <https://mospi.gov.in>
4. India Stack official documentation - <https://indiastack.org>
6. IIM Ahmedabad Case Repository - <https://iimahd.ernet.in/case>

COURSE OUTCOMES:

At the end of the course, students will be able to:	
CO1	Apply demand theory and elasticity concepts to real Indian pricing and market decisions.
CO2	Analyze production functions and cost structures for Indian business optimization.
CO3	Evaluate market structures and competitive strategy using game theory frameworks.
CO4	Design pricing strategies using dynamic and revenue management principles
CO5	Interpret macroeconomic indicators and India Stack impact on business decision-making.

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26MB103T	Accounting for Decision Making	Category	L	T	P	C
		ES (PC)	3	1	0	4
Course Objectives: • To understand the fundamental concepts and theoretical frameworks covered in Accounting Foundations & Journal Entries. • To apply analytical tools and models related to Final Accounts & Corporate Financial Statements. • To analyse the concepts of Ratio Analysis & Financial Health Assessment in business contexts. • To evaluate strategies and frameworks pertaining to Cash Flow Statement Analysis. • To synthesise knowledge of Financial Statement Fraud Detection & Forensic Accounting for managerial decision-making.						
Accounting Foundations & Journal Entries Accounting concepts: Going Concern, Accrual, Matching, Consistency, Prudence. Accounting equation. Double-entry bookkeeping. Subsidiary books. Ledger posting and balancing. Trial balance. Bank Reconciliation Statement (BRS). Cloud accounting: Tally Prime						
Final Accounts & Corporate Financial Statements Final accounts with adjustments: depreciation (SLM, WDV), provisions. Schedule III format under Companies Act 2013. Statement of Profit & Loss and Balance Sheet. Notes to Accounts. Ind-AS 1 (Presentation) and Ind-AS 115 (Revenue Recognition).						
Ratio Analysis & Financial Health Assessment Liquidity ratios: Current, Quick, Cash. Solvency ratios: D/E, Interest Coverage, DSCR. Profitability: Gross Profit %, Net Profit %, ROE, ROA, ROCE, EBITDA margin. Efficiency: Asset Turnover, Inventory Turnover, Receivables Days. DuPont Analysis (3-factor and 5-factor).						
Cash Flow Statement Analysis Cash Flow Statement under Ind-AS 7: Operating, Investing, Financing activities. Direct vs. Indirect method. Free Cash Flow (FCF) = Operating CF – Capex. FCF yield, Cash Conversion Ratio, quality of earnings. Working capital changes. Startup cash burn analysis.						
Financial Statement Fraud Detection & Forensic Accounting Earnings quality indicators: accruals ratio, revenue recognition manipulation. Beneish M-Score model. Altman Z-Score. Common fraud schemes: channel stuffing, round-tripping, fictitious revenues, expense capitalisation. SEBI BRSR. Case studies: Satyam, DHFL, Carlyle-BIG.						
Total periods (L:45; T:15): 60						
References: 1. Narayanaswamy, R. (2022). Financial accounting: A managerial perspective (7th ed.). PHI Learning. 2. Khan, M. Y., & Jain, P. K. (2018). Management accounting (8th ed.). Tata McGraw Hill. 3. Reddy, T. S., & Murthy, A. (2014). Financial accounting. Margham Publications. 4. Kranacher, M. J., Riley, R., & Wells, J. T. (2019). Forensic accounting and fraud examination (2nd ed.). Wiley.						

1. Penman, S. H. (2013). Financial statement analysis and security valuation (5th ed.). McGraw Hill.
2. Chatterjee, S. (2023). Ind AS financial statements (3rd ed.). Taxmann.

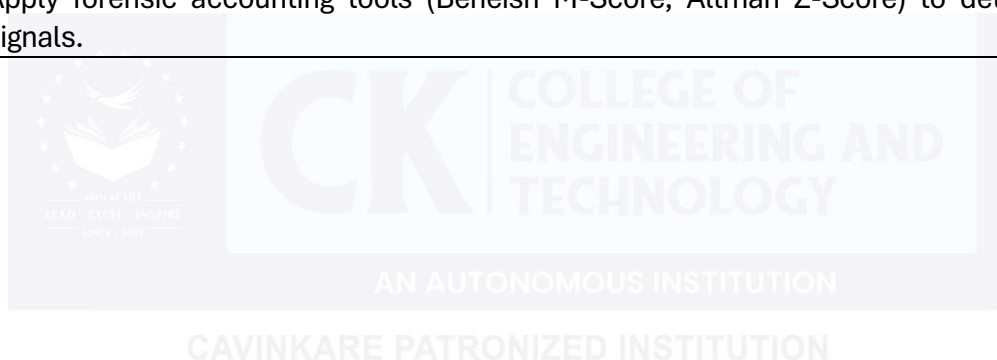
E-Resources:

1. SEBI Annual Reports & Company Filings- <https://www.sebi.gov.in>
2. BSE/NSE Annual Reports - <https://www.bseindia.com> / <https://www.nseindia.com>
3. Screener.in - Financial Data Analytics Platform - <https://www.screener.in>
4. ICAI - Ind-AS Implementation Guide - <https://www.icai.org>
5. NPTEL: Financial Accounting and Analysis - <https://nptel.ac.in>

COURSE OUTCOMES:

At the end of the course, students will be able to:

CO1	Apply the full accounting cycle to prepare accurate financial statements under Ind-AS.
CO2	Interpret and prepare Schedule III financial statements for Indian listed companies.
CO3	Evaluate ratio analysis, DuPont decomposition, and financial health assessment.
CO4	Analyze and evaluate cash flow quality and startup burn rate dynamics.
CO5	Apply forensic accounting tools (Beneish M-Score, Altman Z-Score) to detect fraud signals.



26MB104T	Statistics for Managers	Category	L	T	P	C
		ES (PC)	3	1	0	4
Course Objectives: - To understand the fundamental concepts and theoretical frameworks covered in Descriptive Statistics & Probability. - To apply analytical tools and models related to Probability Distributions & Applications. - To analyse the concepts of Sampling & Hypothesis Testing in business contexts. - To evaluate strategies and frameworks pertaining to Regression Analysis. - To synthesise knowledge of Time Series, Index Numbers & Decision Theory for managerial decision-making.						
Descriptive Statistics & Probability Parametric Test, Non-Parametric Tests, Mean, median, mode, geometric mean, harmonic mean. Variance, standard deviation, coefficient of variation. Skewness and kurtosis. Frequency distributions, ogives, stem-and-leaf plots. Probability: classical, relative frequency, subjective. Addition and multiplication rules. Conditional probability. Bayes' theorem.						
Probability Distributions & Applications Binomial distribution: properties, mean, variance. Poisson distribution and applications. Normal distribution: properties, standard normal Z-table. t-distribution. Central Limit Theorem. Applications in quality control, financial returns, customer arrival modelling.						
Sampling & Hypothesis Testing Sampling: random, stratified, cluster, systematic. Sampling distributions, standard error, confidence intervals. Hypothesis testing: null and alternate, Type I and II errors, p-value, significance level. Z-test, t-test (one-sample, two-sample, paired). Chi-square test. ANOVA (one-way).						
Regression Analysis Simple Linear Regression: scatter plot, OLS method, R^2, standard error. Multiple Linear Regression: adjusted R^2, F-test, interpretation. Regression assumptions: linearity, homoscedasticity, normality, independence. Multicollinearity (VIF). Dummy variables.						
Time Series, Index Numbers & Decision Theory Time series components: trend, seasonal, cyclical, irregular. Decomposition. Moving averages. Exponential smoothing (Holt-Winters). Index numbers: Laspeyre's, Paasche's, Fisher's Ideal - WPI, CPI. Decision theory: payoff matrix, maximax, maximin, minimax regret, Hurwicz criterion. Decision trees with expected value. EVPI.						
Total periods (L:45; T:15): 60						
References: - Levin, R. I., & Rubin, D. S. (2017). Statistics for management (8th ed.). Pearson Education. - Mann, P. S. (2015). Introductory statistics (9th ed.). Wiley Publications. - Vohra, N. D. (2010). Quantitative techniques in management. Tata McGraw Hill. - Black, K. (2017). Business statistics (10th ed.). Wiley. - Draper, N. R., & Smith, H. (1998). Applied regression analysis (3rd ed.). Wiley. - Makridakis, S. G., et al. (1998). Forecasting methods and applications (3rd ed.). Wiley.						

E-Resources:

1. MOSPI Statistical Data - <https://mospi.gov.in>
2. RBI Data Warehouse - <https://dbie.rbi.org.in>
3. Kaggle Datasets - <https://www.kaggle.com/datasets>
4. NPTEL: Business Statistics and Quantitative Methods - <https://nptel.ac.in>
5. Khan Academy: Statistics and Probability - <https://www.khanacademy.org>

COURSE OUTCOMES:

At the end of the course, students will be able to:

CO1	Compute and interpret descriptive statistics and probability distributions for business data.
CO2	Apply sampling theory and hypothesis testing to validate business decisions.
CO3	Build and interpret regression models for business forecasting.
CO4	Apply time series techniques to generate business forecasts using Indian datasets.
CO5	Use decision theory tools (decision trees, payoff matrices, EVPI) to optimise business choices.



26MB105T	Business Law & Ethics	Category	L	T	P	C
		ES (PC)	4	0	0	4
Course Objectives: • To understand the fundamental concepts and theoretical frameworks covered in Contract Law & Commercial Laws. • To apply analytical tools and models related to Company Law & Corporate Governance. • To analyse the concepts of Competition Law & Intellectual Property Rights in business contexts. • To evaluate strategies and frameworks pertaining to Labour Laws & Consumer Protection. • To synthesise knowledge of Business Ethics, CSR, DPDP Act & ESG for managerial decision-making.						
Contract Law & Commercial Laws Indian Contract Act, 1872: valid contract essentials. Void vs. voidable contracts. Breach and remedies. Special contracts: indemnity, guarantee, bailment, pledge, agency. Sale of Goods Act, 1930. Negotiable Instruments Act, 1881. Digital contracts and e-signatures under IT Act, 2000.						
Company Law & Corporate Governance Companies Act, 2013: types of companies, incorporation, MOA and AOA. Share capital types. Board composition, powers, duties, independent directors (Section 149). Audit, Nomination & Remuneration Committees. SEBI LODR 2015. Minority shareholder protection (Sections 241-242). NCLT. SEBI ESG/BRSR norms						
Competition Law & Intellectual Property Rights Competition Act, 2002: CCI mandate. Anti-competitive agreements (Section 3): cartels, bid-rigging, RPM, tie-ins. Abuse of dominant position (Section 4): predatory pricing, refusal to deal. Merger control. Patents Act 1970, Trade Marks Act 1999, Copyright Act 1957. IP strategy for startups.						
Labour Laws & Consumer Protection Four Labour Codes (2020): Wages, Industrial Relations, Social Security, Occupational Safety. POSH Act, 2013: ICC structure, employer obligations. Consumer Protection Act, 2019 (CCPA): consumer rights, CDRC hierarchy, e-commerce rules, product liability. Dark patterns and CCPA enforcement on e-commerce. Cyber Laws, Legal Issues in Digital Business Environment						
Business Ethics, CSR, DPDP ACT, ESG, Indian Ethos & Ethical Foundations Ethical Practices in Business, Ethical frameworks: Utilitarian, Kantian, Virtue Ethics, Social Contract Theory. Rest's 4-component model. Management Concepts from Thirukkural, Insights from Periyapuranam, Indian Ethos / Indian Knowledge System. Conflicts of interest, whistleblowing. CSR under Section 135, Companies Act 2013. SEBI BRSR. Digital Personal Data Protection Act, 2023. IBC, 2016. ESG career pathways: ESG Analyst role, BRSR compliance, Green bonds, ESG-linked loans.						
						Total periods: 60

References:

1. Kapoor, N. D. (2017). Elements of mercantile law. Sultan Chand and Company.
2. Pathak, A. (2018). Legal aspects of business (6th ed.). Tata McGraw Hill.
3. Fernando, A. C. (2012). Business ethics and corporate governance (2nd ed.). Pearson.
4. Singh, A. (2020). Company law and practice (22nd ed.). Eastern Book Company.
5. Ramappa, T. (2018). Competition law in India (4th ed.). Oxford University Press.
6. Nappinai, N. S. (2024). Digital Personal Data Protection Act 2023. LexisNexis.
7. Padhi, P. K. (2020). Labour & industrial laws (4th ed.). PHI Learning.

E-Resources:

1. MCA21 Company Law Portal - <https://www.mca.gov.in>
2. CCI Orders and Judgements - <https://www.cci.gov.in>
3. SEBI BRSR Disclosure Framework - <https://www.sebi.gov.in>
4. DPDP Act 2023 Official Text - <https://meity.gov.in>
5. IndiaCode - <https://www.indiacode.nic.in>

COURSE OUTCOMES:

At the end of the course, students will be able to:	
CO1	Interpret and apply Indian contract law and commercial laws to business disputes.
CO2	Analyse corporate governance frameworks and evaluate compliance with Companies Act 2013 and SEBI LODR
CO3	Apply competition law and IP frameworks to digital market scenarios
CO4	Evaluate labour law obligations and consumer protection compliance for Indian businesses
CO5	Design ethical frameworks and ESG/BRSR compliance systems aligned with DPDP Act 2023.

26MB106T	Organizational Behaviour	Category	L	T	P	C
		ES (PC)	4	0	0	4
Course Objectives: • To provide knowledge base for understanding the behaviour of individual, group and organisation. • To equip the students with the theoretical and practical tools to effectively • To manage individuals and groups within the organisations • To evaluate strategies and frameworks pertaining to OB • To synthesise knowledge of Business Ethics, CSR, DPDP Act & ESG for managerial decision-making.						
Concept of Organizational Behaviour Nature and Scope of Organizational behaviour – Opportunities and Challenges for Organizational Behaviour -Disciplines that Contribute to the Organizational Behaviour- Model of Organizational Behaviour. Attitude and Its Formation						
Individual Behaviour Learning-Concept of learning-Theories of learning-Principles of learning. Perception - Importance - Perception Model - Factors influencing Perception - Principles of Perception - Errors in Perception - How to Improve Perception. Personality - Importance - Determinants of Personality - Theories of Personality - Attitudes & Values - Formation of Attitude-Changing Attitude - Values and Value System. Motivation - Nature of motivation - Techniques of motivation -Theories of Motivation-Content Theories of Motivation- Process Theories of Motivation						
Group Behaviour Group dynamics-Group Formation-Types of Groups-Factors influencing formation of small groups-Group Norms-Group Decision making - Techniques of Group Decision making - Suggestions for making group decisions effective - Group Cohesiveness - Measures for making groups cohesive - Team building. Leadership - Definition-Importance - Leadership Styles- Models and Theories of Leadership Styles - Effective use of Power and Politics. Conflict management - Nature of Conflict - Features of Conflict - Types of Conflicts- Sources of Conflict- Conflict Resolution.						
Organizational Dynamics Organizational Culture and Climate-Importance-Concept of Culture-Nature of Culture - Formation of Culture-Best Practices of Organizational Culture - Organizational Climate - Culture Vs Climate - Model of Climate. Organizational Change and Organizational Development Nature of Change - Types of Change - Importance of Change - Forces for Change in Organizations - Resistance to Change - Models of Change Process - Organisational Development - OD Interventions.						
Contemporary Issues in Organizational Behaviour Importance and techniques of improving Stress Management, Quality of Work Life, Work Life Balance and Emotional Intelligence Case studies related to concepts and application of Organizational Behaviour.						
Total periods: 60						

References:

1. Stephen P Robins, Organizational Behaviour, Prentice Hall of India.
2. Fred Luthans, Organizational Behaviour, McGraw Hill Book Co.
3. Udai Pareek, Understanding Organizational Behaviour, Oxford University Press.
4. Arun Kumar & Meenakshi N, Organizational Behaviour|| Vikas Publishing House Pvt. Ltd.
5. Chandan J, Organizational Behaviour, Vikas Publishing House Pvt. Ltd.

COURSE OUTCOME:

At the end of the course, students will be able to:	
CO1	Explain and interpret individual, group, and organizational behavior concepts in workplace settings.
CO2	Apply theoretical and practical tools to effectively manage individual and group behavior in organizations.
CO3	Analyze team dynamics, leadership styles, motivation, and communication processes to improve organizational effectiveness.
CO4	Evaluate organizational behavior strategies, models, and frameworks for decision-making and problem-solving.
CO5	Integrate principles of Business Ethics, Corporate Social Responsibility (CSR), the Digital Personal Data Protection (DPDP) Act, and Environmental, Social, and Governance (ESG) factors into managerial decisions.



26MB107T	Data Analytics for Business Decisions	Category	L	T	P	C
		ES (PC)	4	0	0	4
Course Objectives: - To understand the fundamental concepts and theoretical frameworks covered in Data Landscape & Analytics Life Cycle. - To apply analytical tools and models related to Python Fundamentals & Data Cleaning. - To analyse the concepts of Exploratory Data Analysis (EDA) in business contexts. - To evaluate strategies and frameworks pertaining to Data Visualisation & Dashboard Design. - To synthesise knowledge of Introduction to Predictive Analytics & Model Building for managerial decision-making.						
Data Landscape & Analytics Life Cycle Analytics types: descriptive, diagnostic, predictive, prescriptive. Data types: structured, semi-structured, unstructured. Data sources: internal (ERP, CRM, POS), external (social media, government). Analytics lifecycle: Business Problem → Data Collection → Preparation → Analysis → Visualisation → Decision. Data ethics: privacy, consent, DPDP Act 2023.						
Python Fundamentals & Data Cleaning Python basics: data types, lists, dictionaries, loops, functions. Pandas: Series, Data Frame, read csv, indexing, filtering, group by. NumPy arrays. Data cleaning: missing values (imputation, deletion), outlier detection (IQR, Z-score), data type conversion, string cleaning. Merging: merge, concat, pivot_table, melt. Jupyter Notebook and Google Colab						
Exploratory Data Analysis (EDA) Descriptive statistics in Pandas. Frequency distributions, histograms, bar charts, box plots. Scatter plots and correlation matrix. Heatmaps (Seaborn). Pair plots. Bivariate and multivariate analysis. Outlier analysis and treatment. AutoEDA tools: ydata-profiling, Sweetviz.						
Quality Management Techniques Introduction to Lean Six Sigma – K aizen Techniques - Deming Concepts - Application in Quality Management Awareness						
Introduction To Predictive Analytics & Model Building Correlation vs. causation: spurious correlations. Simple Linear Regression (SLR): OLS, R^2, RMSE, MAD. Multiple Linear Regression (MLR): feature selection, adjusted R^2, F-test. Model building in Python (scikit-learn: LinearRegression, train_test_split). Multicollinearity (VIF). Introduction to decision trees.						
Total periods: 60						
References: - McKinney, W. (2022). Python for data analysis (3rd ed.). O'Reilly. - Knafllic, C. N. (2015). Storytelling with data. Wiley. - Schniederjans, M. J. et al. (2014). Business analytics principles, concepts and applications. Pearson. - Albright, C. S., & Winston, W. L. (2015). Business analytics (5th ed.). Cengage Learning. - Müller, A. C., & Guido, S. (2017). Introduction to machine learning with Python. O'Reilly.						

6. Davenport, T. H., Harris, J. G., & Morison, R. (2010). Analytics at work. Harvard Business Review Press.

E-Resources:

1. Kaggle Datasets - <https://www.kaggle.com/datasets>
2. NPTEL: Business Statistics and Analytics - <https://nptel.ac.in>
3. Tableau Public - <https://public.tableau.com>
4. Google Colab - <https://colab.research.google.com>
5. Screener.in - Indian Company Financial Data - <https://www.screener.in>

COURSE OUTCOMES:

At the end of the course, students will be able to:

CO1	Map business problems to the analytics lifecycle and select appropriate data sources and methods.
CO2	Clean, manipulate, and prepare real-world Indian datasets using Python and Pandas
CO3	Evaluate comprehensive exploratory data analysis and interpret findings for business decisions.
CO4	Design and build effective data visualisation dashboards using Tableau and Python.
CO5	Build, evaluate, and interpret predictive regression models for Indian business contexts.



26MB108P	Business Communication Lab	Category	L	T	P	C
		SD	0	0	4	2
Course Objectives: Applied communication lab developing foundational professional communication skills: structured verbal communication, business writing, interview preparation, group discussion techniques, and professional digital presence. Emphasis on confidence-building through deliberate practice and feedback loops.						
Module 1: Structured Verbal Communication & GD Foundations						
Objective: Deliver structured verbal communications using frameworks and develop confident GD participation skills. - PREP Method Training (Point-Reason-Example-Point): each student delivers 2-minute responses on 5 business topics using PREP; peer evaluation on clarity, evidence use, and conclusion. - GD Technique Lab: practise structured GD entry (data-backed opening statement), building on others' points, handling interruptions, and structured closure; 3 full GD rounds with written feedback. - Video Analysis: watch 3 GD recordings; identify entry technique, content quality, listening behaviour, and body language; submit a 1-page structured critique.						
Module 2: Business Writing Fundamentals						
Objective: Produce clear, professional business writing across emails, memos, and short reports. - Email Writing Sprint: rewrite 5 poorly written business emails using BLUF (Bottom Line Up Front), active voice, and appropriate tone; evaluate rewrites against a professional email rubric. - Memo and Business Report Lab: write a 2-page analytical memo and a 1-page executive summary using SCQA (Situation-Complication-Question-Answer) structure; peer review using a structured rubric. - AI Writing Lab: use ChatGPT to draft a business email; identify 3 tone, 2 structure, and 2 content weaknesses; rewrite manually and compare quality.						
Module 3: Interview Communication Skills and Group Discussion Skill						
Objective: Build interview communication competency through structured STAR method practice and mock sessions. - GD Training: prepare 8 structured STAR (Situation-Task-Action-Result) stories covering leadership, conflict, failure, achievement, teamwork, creativity, initiative, and customer focus; timed at 90 seconds each. - Mock Interview Round 1: full 20-minute mock interview by a peer using a standard HR question bank (20 questions); written feedback form completed immediately after; identified top 3 improvement areas. - HR Interview Question Bank: research and prepare answers to 50 most common MBA fresher interview questions; categorise into Behavioural, Situational, Technical, and Company-Specific; test in pairs.						

Module 4: Presentation Skills

Objective: Design and deliver impactful professional presentations with clear structure, visual design, and confident delivery.

- Slide Design Lab: redesign 3 text-heavy, bullet-ridden slides into executive-quality slides using One Idea Per Slide principle; explain design choices in a written note.
- 5-Minute Presentation Challenge: each student presents a 5-minute business case analysis using a 5-slide deck; evaluated on structure, content clarity, visual design, and delivery confidence.
- Presentation Feedback Loop: watch own recorded presentation; self-evaluate against a 10-point rubric; identify top 3 improvements; deliver an improved version in the following session.

Module 5: Professional Digital Presence

Objective: Build a professional digital presence on LinkedIn aligned with career goals.

- LinkedIn Profile Audit: evaluate own LinkedIn profile against a 15-point checklist (headline, about section, experience bullets, skills, recommendations, profile photo, banner); implement all improvements.
- Professional Content Creation: write and publish 2 original LinkedIn posts connecting a course concept to a current Indian business event; evaluate engagement metrics and faculty feedback on tone and insight quality.
- Digital Professional Portfolio: compile a 1-page professional bio, a polished LinkedIn profile, and a short video pitch (60 seconds); submit as a digital professional package for faculty review.

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Total periods: 60

References:

1. Pal, R., & Korlahalli, J. S. Essentials of business communication (13th ed.). Sultan Chand & Sons.
2. Raman, M., & Singh, P. (2012). Business communication (2nd ed.). Oxford.
3. Bovee, C. L., & Thill, J. V. (2022). Business communication today (15th ed.). Pearson.
4. Rasiel, E. M. (1999). The McKinsey way. McGraw Hill.

E-Resources:

1. Toastmasters International - Speech Resources - <https://www.toastmasters.org>
2. LinkedIn Learning - Professional Skills - <https://www.linkedin.com/learning>
3. NPTEL: Business Communication - <https://nptel.ac.in>
4. Harvard Manage Mentor - Communication Skills - <https://www.harvardbusiness.org>
5. GD Topics Archive - InsightsIAS - <https://www.insightsonindia.com>

Mandatory Course – I Business Analytics – Foundation	Category	L	T	P	C
	MC	0	0	0	0
Course Objectives: Build core data literacy and hands-on analytical skills - understanding data, summarising it accurately, visualising it clearly and presenting it as a business story.					
Module 1 – Data Literacy & the Analytics Mindset					
1.1 What is Business Analytics? - The four types of analytics: Descriptive, Diagnostic, Predictive, Prescriptive - one business example each - The analytics value chain: Raw data → Cleaned data → Information → Insight → Decision - Why data literacy is now a core management competency - not just a technical skill					
1.2 Types of Business Data - Structured vs. unstructured vs. semi-structured data - real business examples of each - Internal data sources: ERP, CRM, HRMS, finance systems, POS transactions - External data sources: Industry reports, government databases, social media, market research					
1.3 Data Quality & Its Business Impact - Five dimensions of data quality: Accuracy, completeness, consistency, timeliness, validity - Common data problems: Missing values, duplicates, outliers and incorrect formats - The cost of bad data - decision errors, reporting failures and compliance risks					
1.4 Introduction to Data Ethics for Managers - Data privacy and consent: Overview of GDPR and India's DPDP Act for business managers - Bias in data: How skewed data leads to unfair decisions in HR, credit and marketing - Responsible data use: Transparency, accountability and the manager's role in data governance					
Module 2 – Descriptive Analytics & Excel					
2.1 Descriptive Statistics for Business - Central tendency: Mean, median and mode - when each is the right measure for business data - Spread and variability: Standard deviation, variance, range and coefficient of variation - Using Excel's Data Analysis ToolPak to generate instant descriptive statistics					
2.2 Data Cleaning & Preparation in Excel - Removing duplicates, handling blanks and fixing formatting inconsistencies - Text functions: TRIM, PROPER, LEFT, RIGHT, MID, TEXTJOIN for clean, usable data - Data validation rules and auditing formulas to maintain data integrity					
2.3 Excel Functions for Business Analysis Lookup functions: VLOOKUP, XLOOKUP, INDEX-MATCH for combining datasets					

- Conditional aggregation: SUMIFS, COUNTIFS, AVERAGEIFS for segment-level reporting
- Pivot Tables and Pivot Charts: Grouping, filtering, slicing and cross-tabulating business data.

2.4 What-If & Scenario Analysis

- Goal Seek: Working backwards from a business target - break-even, pricing, headcount
- Scenario Manager: Best / base / worst-case models for budgets and revenue projections
- Data Tables: One-variable and two-variable sensitivity analysis for decision-making

Module 3 – Data Visualization Fundamentals

3.1 Choosing the Right Chart

- Chart selection guide: Bar, column, line, pie, scatter, waterfall, heatmap - when to use each
- Visual encoding: How length, color, size and position communicate different types of information
- The most common chart mistakes in business - and how to fix them

3.2 Designing Clear Business Charts

- Principles of good chart design: Clarity, accuracy, proportion and minimal chartjunk
- Annotation and labels: When and how to add context, callouts and trend lines
- Color in data visualization: Sequential, diverging and categorical palettes for business use

3.3 Business-Specific Visualizations

- Waterfall charts for financial storytelling: Revenue bridges and P&L movement
- Bullet charts and KPI gauges for performance comparison against targets
- Combo charts: Combining bar and line for volume-vs-trend analysis

3.4 Storytelling with Data

- The SCR framework: Situation → Complication → Resolution - structuring a data narrative
- Writing the 'So What?' headline: Turning a chart into a management insight
- A complete data story in three slides: Context, evidence, recommendation

Module 4 – Introduction to Business Dashboards

4.1 What Makes a Good Business Dashboard?

- Dashboard types: Strategic (executive KPIs), operational (daily monitoring), analytical (deep-dive)
- Design principles: Information hierarchy, white space, alignment and visual grouping
- Common dashboard mistakes: Too many metrics, no clear message, missing context

4.2 Building Dashboards in Excel

- Linking pivot tables and charts to create a dynamic, data-connected dashboard
- Using slicers and timelines for interactive filtering without any code
- Professional layout: Color scheme, fonts, KPI cards and chart placement

4.3 Introduction to Power BI (Awareness)

- Power BI Desktop interface: Data view, Model view and Report view - purpose of each

- Loading a dataset and building a simple 3-chart report with a slicer
- Publishing a report to Power BI Service and sharing it with a team

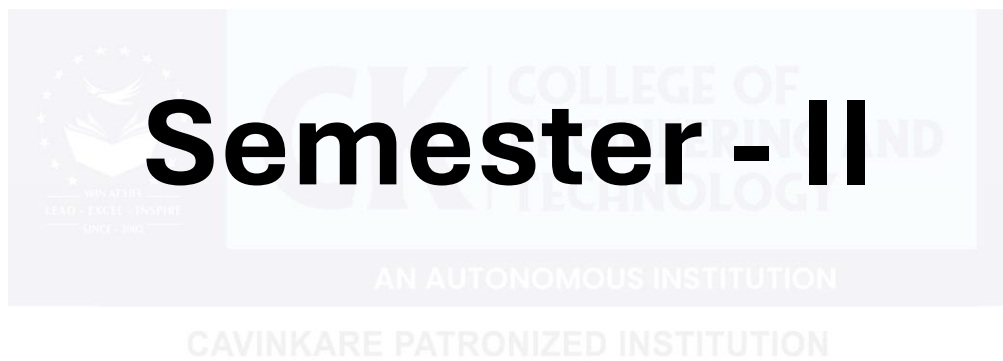
4.4 Dashboard Capstone – Mini Project

- Analyse a provided business dataset (sales, HR or operations, minimum 300 rows)
- Build a one-page Excel dashboard with at least 3 charts, 2 KPI cards and 1 slicer
- Present: 5-minute walkthrough - data story, key insight and one business recommendation

Approved by
Academic Council Meeting
 No.: 01 Dated: 21.4.26

Recommended by
 Board of Studies of**MBA**..... Dept.
 Meeting No.: 01 Dated: 01.4.26





26MB201T	Financial Management	Category	L	T	P	C
		ES (PC)	3	1	0	4
Course Objectives: • To understand the fundamental concepts and theoretical frameworks covered in Time Value of Money & Capital Budgeting. • To apply analytical tools and models related to Cost of Capital & Capital Structure. • To analyse the concepts of Working Capital Management in business contexts. • To evaluate strategies and frameworks pertaining to Dividend Policy & Corporate Valuation. • To synthesise knowledge of Indian Capital Markets, SEBI & Corporate Finance Decisions for managerial decision-making.						
Time Value of Money & Capital Budgeting Time value of money: PV, FV, annuity, perpetuity, NPV. Capital budgeting techniques: NPV, IRR, MIRR, Payback Period, Discounted Payback, Profitability Index. Mutually exclusive projects, capital rationing. Sensitivity analysis and scenario analysis for investment decisions. Personal Finance & Wealth Management - Balance of Payments (BOP) - Time Value of Money - Stock Valuation - Break Even Point (BEP) Analysis						
Cost of Capital & Capital Structure Cost of equity: CAPM, Gordon Growth Model, Arbitrage Pricing Theory. Cost of debt: yield to maturity. WACC calculation. Capital structure theories: Modigliani-Miller (with and without taxes), Trade-off theory, Pecking Order theory, Agency theory. Optimal capital structure. Leverage: operating, financial, combined.						
Working Capital Management Working capital concepts: gross, net, permanent, temporary. Operating cycle and cash conversion cycle. Cash management: Baumol model, Miller-Orr model. Receivables management: credit policy, debtor ageing, factoring. Inventory management: EOQ, JIT, ABC analysis. Short-term financing: trade credit, commercial paper, bank overdraft.						
Dividend Policy & Corporate Valuation Dividend theories: MM irrelevance theory, Bird-in-Hand theory, Tax Preference theory, Signalling theory. Dividend policy types: stable, constant payout, residual. Share buybacks. Bonus shares. Corporate valuation methods: DCF (FCFF, FCFE), Relative valuation (EV/EBITDA, P/E, EV/Revenue, P/B). SEBI buyback regulations.						
Indian Capital Markets, Sebi & Corporate Finance Decisions Indian capital market structure: primary (IPO, FPO, rights issue) and secondary markets. SEBI regulations: ICDR, LODR, insider trading (PIT Regulations, 2015), takeover code (SEBI SAST 2011). Stock exchange mechanics: NSE, BSE. Demat accounts, settlement (T+1). Market indices: Nifty 50, Sensex construction. Basics of Taxation and GST.						
Total periods (L:45; T:15): 60						

References:

1. Brealey, R. A., Myers, S. C., & Allen, F. (2020). Principles of corporate finance (13th ed.). McGraw Hill.
2. Pandey, I. M. (2018). Financial management (11th ed.). Vikas Publishing House.
3. Khan, M. Y., & Jain, P. K. (2017). Financial management (8th ed.). Tata McGraw Hill.
4. Prasanna Chandra (2019). Financial management (10th ed.). McGraw Hill.
5. Damodaran, A. (2012). Investment valuation (3rd ed.). Wiley Finance.

E-Resources:

1. NSE India - Market Data - <https://www.nseindia.com>
2. SEBI - Regulatory Framework - <https://www.sebi.gov.in>
3. Screener.in - Indian Company Financials - <https://www.screener.in>
4. Damodaran Online - Valuation Resources - <https://pages.stern.nyu.edu/~adamodar>
5. NPTEL: Financial Management - <https://nptel.ac.in>

COURSE OUTCOMES:

At the end of the course, students will be able to:	
CO1	Apply time value of money and capital budgeting techniques to investment decisions
CO2	Calculate WACC and evaluate capital structure decisions using Indian market data
CO3	Manage working capital efficiently using operating cycle and cash conversion cycle analysis
CO4	Build and interpret DCF and relative valuation models for Indian listed companies
CO5	Analyse SEBI regulations and Indian capital market mechanisms for corporate finance decisions

26MB202T	Operations & Supply Chain Management	Category	L	T	P	C
		ES (PC)	3	1	0	4
Course Objectives: - To understand the fundamental concepts and theoretical frameworks covered in Operations Strategy & Process Design. - To apply analytical tools and models related to Quality Management & Six Sigma. - To analyse the concepts of Supply Chain Strategy & Design in business contexts. - To evaluate strategies and frameworks pertaining to Inventory Management & Logistics. - To synthesise knowledge of Digital Supply Chains, Sustainability & Resilience for managerial decision-making.						
Operations Strategy & Process Design Operations strategy: competitive priorities (cost, quality, speed, flexibility). Process types: job, batch, mass, continuous. Process mapping: flowcharts, value stream mapping (VSM). Capacity planning: design, effective, actual capacity. Bottleneck analysis. Break-even in operations. Aggregate planning strategies						
Quality Management & Six Sigma Quality concepts: inspection, quality control, quality assurance, TQM, Six Sigma. DMAIC framework. Control charts: X-bar, R-chart, p-chart. Process capability: Cp, Cpk. Cause-and-effect (Ishikawa) diagrams. Pareto analysis. Failure Mode and Effects Analysis (FMEA). ISO 9001:2015. BIS standards in India.						
Supply Chain Strategy & Design Supply chain strategy: efficient vs. responsive. Fisher's framework: functional vs. innovative products. Network design: facility location (weighted centre of gravity method). Make vs. buy decisions. Outsourcing and offshoring. Bullwhip effect. Postponement strategy. Risk pooling.						
Inventory Management & Logistics Inventory types: raw material, WIP, finished goods. EOQ model, Reorder Point, Safety Stock. ABC and VED analysis. Just-In-Time (JIT) and Kanban. MRP and MRP II. Logistics: transportation modes, 3PL, 4PL. Last-mile delivery in India. Reverse logistics. Cold chain logistics.						
Digital Supply Chains, Sustainability & Resilience Digital supply chain: IoT for tracking, AI for demand forecasting, robotics in warehousing. ONDC and its impact on Indian supply chains. Supply chain risk management: disruption types, risk mapping, resilience strategies. Sustainable supply chains: carbon footprint, circular economy, green logistics. ESG in supply chain reporting.						
Total periods (L:45; T:15): 60						
References: - Chase, R. B., Aquilano, N. J., & Jacobs, F. R. (2020). Operations and supply chain management (15th ed.). McGraw Hill. - Ballou, R. H. (2014). Business logistics management (5th ed.). Pearson Education. - Chopra, S., & Meindl, P. (2021). Supply chain management (7th ed.). Pearson.						

4. Mahadevan, B. (2015). Operations management: Theory and practice (3rd ed.). Pearson India.
5. Raghuram, G., & Rangaraj, N. (2000). Logistics and supply chain management. Macmillan.

E-RESOURCES:

1. NPTEL: Operations Management - <https://nptel.ac.in>
2. CSCMP - Supply Chain Management Resources - <https://www.cscmp.org>
3. McKinsey: Digital Supply Chain - <https://www.mckinsey.com>
4. ONDC Network - <https://ondc.org>
5. IIM Bangalore Case Repository - <https://www.iimb.ac.in/case-repository>

COURSE OUTCOMES:

At the end of the course, students will be able to:	
CO1	Design operations processes and capacity plans to improve efficiency in Indian business contexts
CO2	Apply quality management frameworks (Six Sigma, DMAIC, FMEA) to operational improvement
CO3	Evaluate supply chain strategies for Indian companies using Fisher's framework and network design principles
CO4	Optimise inventory management and logistics for Indian manufacturing and service operations
CO5	Analyse digital supply chain technologies, sustainability requirements, and resilience strategies

26MB203T	Human Resource Management	Category	L	T	P	C
		ES (PC)	4	0	0	4
Course Objectives: • To understand the fundamental concepts and theoretical frameworks covered in Operations Strategy & Process Design. • To apply analytical tools and models related to Quality Management & Six Sigma. • To analyse the concepts of Supply Chain Strategy & Design in business contexts. • To evaluate strategies and frameworks pertaining to Inventory Management & Logistics. • To synthesise knowledge of Digital Supply Chains, Sustainability & Resilience for managerial decision-making.						
Human Resource Management Foundations HRM evolution: Personnel Management to Strategic HRM. HR functions: planning, recruitment, selection, training, appraisal, compensation, exit. HR as a strategic business partner. Competency-based HR. HR analytics basics. Indian Labour Codes (2020) and HRM compliance. HR technology: ATS, HRIS, HRMS platforms.						
Talent Acquisition, Development & Performance Management Recruitment: methods, employer branding, campus recruitment, social media hiring. Selection: psychometric tests, structured interviews, assessment centres. Training and development: needs assessment, methods (OJT, classroom, e-learning), ROI of training. Performance management systems (PMS): KRA/KPI, 360-degree feedback, bell curve vs. relative ranking. Succession planning. Change Management - Talent Management						
Compensation, Employee Relations & Hr Compliance Compensation structure: CTC components (basic, HRA, allowances, variable pay, ESOP). Pay equity and gender pay gap. Job evaluation: Hay method, point rating. Wage boards and Pay Commissions in India. Industrial Relations: trade unions, collective bargaining, grievance handling. Four Labour Codes compliance. Industrial Relations and Labour Laws (IRLW)						
Principal Compensation Issues & Management Designing basic pay structures – Market tracking - Job Evaluation – Productivity, Employee Morale and Motivation; Flexible working practices, Stress Management and Quality of Work Life.						
Business Plan, Funding & Startup Ecosystem Business plan components: executive summary, market analysis, product/service, marketing plan, operations plan, financial projections, team, funding ask. Financial projections: Revenue model, P&L (3-year), Cash flow. Funding stages: bootstrapping, F&F, angel, seed, Series A-D, IPO. Indian startup ecosystem: DPIIT Startup India, iStart, T-Hub, NSRCEL. Pitch deck design principles.						
Total periods: 60						
References: 1. Dessler, G. (2020). resource management (16th ed.). Pearson. 2. Decenzo, D. A., Robbins, S. P., & Verhulst, S. L. (2016). Fundamentals of HRM (12th ed.). Wiley. 3. Ries, E. (2011). The lean startup. Crown Business.						

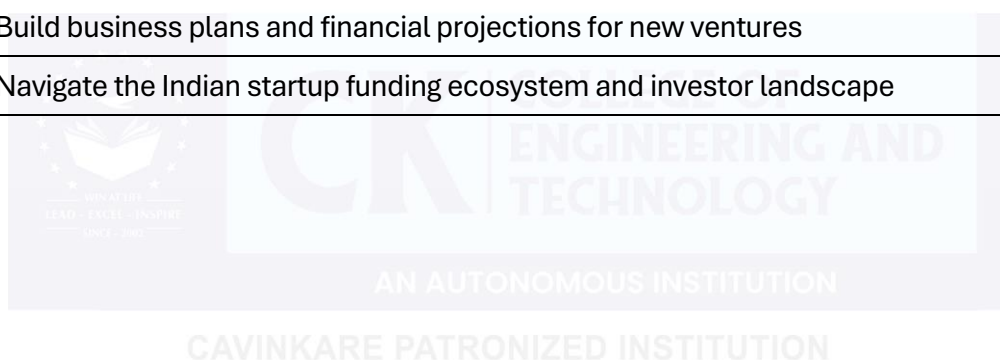
4. Blank, S., & Dorf, B. (2012). The startup owner's manual. K&S Ranch.
5. Vance, A. (2015). Elon Musk: Tesla, SpaceX, and the quest for a fantastic future. HarperCollins.

E-Resources:

1. SHRM - HR Resources - <https://www.shrm.org>
2. Startup India - DPIIT Startup Resources - <https://www.startupindia.gov.in>
3. NASSCOM Product Nation - <https://nasscom.in>
4. NPTEL: Human Resource Management - <https://nptel.ac.in>
5. YourStory - Indian Startup Ecosystem - <https://yourstory.com>

COURSE OUTCOMES:

At the end of the course, students will be able to:	
CO1	Apply strategic HRM frameworks to talent acquisition, development, and performance management
CO2	Design compliant HR systems under India's Four Labour Codes
CO3	Identify and validate entrepreneurial opportunities using Lean Startup and Design Thinking.
CO4	Build business plans and financial projections for new ventures
CO5	Navigate the Indian startup funding ecosystem and investor landscape



26MB204T	Marketing Management	Category	L	T	P	C
		ES (PC)	4	0	0	4
Course Objectives: - To understand the fundamental concepts and theoretical frameworks covered in Consumer Behaviour & Decision-Making. - To apply analytical tools and models related to Market Research & Segmentation. - To analyse the concepts of Digital Marketing Analytics in business contexts. - To evaluate strategies and frameworks pertaining to CRM Analytics & Customer Lifetime Value. - To synthesise knowledge of Brand Analytics, AI in Marketing & Integrated Marketing for managerial decision-making.						
Consumer Behaviour & Decision-Making Consumer decision journey: awareness, consideration, purchase, loyalty, advocacy. Psychological influences: perception, learning, motivation, attitude formation. Social influences: family, reference groups, social class. Cultural influences: Indian cultural dimensions (Hofstede and beyond). Behavioural economics: nudges, defaults, loss aversion, anchoring. The Bharat (non-metro) consumer.						
Market Research & Segmentation Market research process: define problem, research design, data collection (primary, secondary), analysis, reporting. Research designs: exploratory (FGD, depth interviews), descriptive (survey), causal (experiments, A/B tests). Sampling: types, sample size. Questionnaire design. Segmentation: demographic, geographic, psychographic, behavioural. Targeting and Positioning. STP framework.						
Digital Marketing Analytics Digital marketing funnel: Awareness-Interest-Desire-Action (AIDA) to full-funnel attribution. Key metrics: Impressions, CPM, CTR, CPC, CPA, ROAS, CAC, LTV, Retention Rate. Performance marketing: Google Ads, Meta Ads, programmatic. SEO fundamentals: on-page, off-page, technical. Email marketing metrics. Social media analytics. Attribution models: last-click, first-click, data-driven						
CRM Analytics & Customer Lifetime Value CRM systems: Salesforce, HubSpot, Zoho CRM. Customer data platforms (CDPs). Customer segmentation in CRM: RFM analysis (Recency, Frequency, Monetary). Customer Lifetime Value (CLV) calculation: basic and probabilistic. Churn prediction: early warning indicators. Next Best Action (NBA) modelling. Net Promoter Score (NPS) and CSAT.						
Brand Analytics, AI in Marketing & Integrated Marketing Brand equity measurement: Aaker Model, Keller's CBBE, YouGov BrandIndex. Brand tracking studies. Marketing Mix Modelling (MMM). Integrated Marketing Communications (IMC): consistency, synergy across channels. Content marketing analytics. Influencer marketing ROI measurement. AI in marketing: recommendation engines, personalisation, chatbots, generative AI for content.						

References:

1. Kotler, P., & Keller, K. L. (2016). Marketing management (15th ed.). Pearson.
2. Kumar, N., & Mittal, R. (2022). Marketing management. Anmol Publications.
3. Chaffey, D., & Ellis-Chadwick, F. (2019). Digital marketing (7th ed.). Pearson.
4. Aaker, D. A. (2014). Aaker on branding. Morgan James Publishing.
5. Cialdini, R. B. (2007). Influence: The psychology of persuasion. Collins Business.

E-Resources:

1. Google Analytics Academy - <https://analytics.google.com/analytics/academy>
2. Meta Blueprint - Digital Marketing Certification
<https://www.facebook.com/business/learn>
3. HubSpot Academy - Inbound Marketing - <https://academy.hubspot.com>
4. NPTEL: Marketing Management - <https://nptel.ac.in>
5. NielsenIQ India Reports - <https://nielseniq.com/india>

COURSE OUTCOMES:

At the end of the course, students will be able to:

CO1	Apply consumer behaviour frameworks to Indian market segmentation and targeting decisions
CO2	Design and execute market research using both qualitative and quantitative methods.
CO3	Analyse digital marketing campaigns using performance metrics and attribution models.
CO4	Compute CLV, RFM scores, and churn probability for CRM-based marketing decisions.
CO5	Examine brand equity and design integrated marketing campaigns with AI-driven personalisation

26MB205T	Predictive Analytics & AI Applications in Business	Category	L	T	P	C
		ES(PC)	3	1	0	4
Course Objectives: - To understand the fundamental concepts and theoretical frameworks covered in Classification Models - Logistic Regression & Decision Trees. - To apply analytical tools and models related to Ensemble Models & Advanced Classifiers. - To analyse the concepts of Clustering & Segmentation in business contexts. - To evaluate strategies and frameworks pertaining to Natural Language Processing (NLP) Basics for Business. - To synthesise knowledge of AI Deployment, Model Monitoring & Business Integration for managerial decision-making.						
Classification Models - Logistic Regression & Decision Trees Classification problem setup: binary vs. multiclass. Logistic Regression: odds ratio, log-odds, sigmoid function, threshold selection. Decision Trees: splitting criteria (Gini, Information Gain), overfitting, pruning. Model evaluation: confusion matrix, Accuracy, Precision, Recall, F1-Score, AUC-ROC. Class imbalance: SMOTE, class weights.						
Ensemble Models & Advanced Classifiers Ensemble methods: concept of bagging and boosting. Random Forest: feature importance, OOB error. Gradient Boosting (XGBoost, LightGBM): boosting logic, hyperparameter tuning basics. Cross-validation: k-fold, stratified. Hyperparameter tuning: Grid Search, Random Search. Pipeline construction in scikit-learn.						
Clustering & Segmentation Unsupervised learning: concept and applications. K-Means clustering: algorithm, elbow method, silhouette score. Hierarchical clustering: dendrograms, linkage methods. DBSCAN: density-based clustering. Dimensionality reduction: PCA (concept only). Applications: customer segmentation, market basket analysis, document clustering.						
Natural Language Processing (NLP) Basics for Business Text preprocessing: tokenisation, stopword removal, stemming, lemmatisation. Bag of Words and TF-IDF. Sentiment analysis: rule-based (VADER), ML-based (logistic regression on TF-IDF). Topic modelling (LDA basics). Named Entity Recognition (NER). Text classification. Introduction to word embeddings (Word2Vec concept). Business applications: customer review analysis, social media monitoring, resume screening						
AI Deployment, Model Monitoring & Business Integration ML project lifecycle: business problem → data → model → deployment → monitoring. Model deployment basics: Flask API, Streamlit apps. Model monitoring: data drift, concept drift, performance degradation. A/B testing ML models. ML governance: model cards, model risk management (RBI guidelines for banks). AI ROI measurement framework.						
Total periods (L:45; T:15): 60						

References:

1. Müller, A. C., & Guido, S. (2017). Introduction to machine learning with Python. O'Reilly.
2. Géron, A. (2022). Hands-on machine learning with scikit-learn, keras, and TensorFlow (3rd ed.). O'Reilly.
3. James, G., Witten, D., Hastie, T., & Tibshirani, R. (2021). An introduction to statistical learning (2nd ed.). Springer.
4. Chollet, F. (2021). Deep learning with Python (2nd ed.). Manning Publications.
5. Davenport, T. H., & Harris, J. G. (2007). Competing on analytics. HBR Press.

E-Resources:

1. Kaggle - ML Competitions and Datasets - <https://www.kaggle.com>
2. Google ML Crash Course - <https://developers.google.com/machine-learning/crash-course>
3. Fast.ai - Practical Deep Learning - <https://www.fast.ai>
4. NPTEL: Machine Learning for Engineers - <https://nptel.ac.in>
5. Towards Data Science - Medium - <https://towardsdatascience.com>

COURSE OUTCOMES:

At the end of the course, students will be able to:	
CO1	Build and evaluate classification models for business prediction problems
CO2	Apply ensemble methods and hyperparameter tuning to improve model performance
CO3	Evaluate customer segmentation and market basket analysis using clustering algorithms
CO4	Build NLP pipelines for sentiment analysis and topic modelling on business text data
CO5	Deploy, monitor, and measure ROI of AI models in Indian business contexts

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26MB206T	Integrated Research Methods	Category	L	T	P	C
		ES (PC)	3	1	0	4
Course Objectives: • To understand the fundamental concepts and theoretical frameworks covered in Research Design & Problem Formulation. • To apply analytical tools and models related to Measurement, Scaling & Questionnaire Design. • To analyse the concepts of Primary & Secondary Data Collection Methods in business contexts. • To evaluate strategies and frameworks pertaining to Linear Programming & Transportation Models. • To synthesise knowledge of Simulation, Decision Analysis & Research Reporting for managerial decision-making.						
Research Design & Problem Formulation Research: types (basic, applied, exploratory, descriptive, causal). Research process: problem identification, literature review, hypothesis formulation, research design, data collection, analysis, reporting. Research designs: exploratory (qualitative), descriptive (survey), experimental, cross-sectional, longitudinal. Ethics in research: plagiarism, data fabrication, informed consent, DPDP Act implications. SPSS Applications, Excel for Data Analysis, MS Word for Research Documentation, Integrated Research Methodology Concepts						
Measurement, Scaling & Questionnaire Design Measurement: nominal, ordinal, interval, ratio scales. Reliability: Cronbach's alpha, test-retest, inter-rater. Validity: content, construct, criterion validity. Scaling techniques: Likert scale, Semantic Differential scale, Thurstone scale. Factor analysis basics. Questionnaire design: question types, wording, sequencing, pilot testing. Survey platforms: Google Forms, Qualtrics, Typeform.						
Primary & Secondary Data Collection Methods Primary data: surveys, interviews, observation, experiments, focus groups. Secondary data: government (MOSPI, RBI, SEBI, MCA), commercial (CMIE, NielsenIQ), academic databases (EBSCO, JSTOR, Emerald). Web scraping basics (Python Beautiful Soup/Selenium concept). Sampling: probability (random, stratified, cluster, systematic) and non-probability (convenience, snowball, purposive). Sample size determination.						
Linear Programming & Transportation Models Linear Programming (LP): problem formulation, graphical method, simplex method basics. LP applications: product mix, resource allocation, diet problem. Sensitivity analysis: shadow prices, right-hand side ranging. Transportation model: NWCM, LCM, VAM; MODI method for optimisation. Assignment model: Hungarian method. Integer programming concept.						
Simulation, Decision Analysis & Research Reporting Monte Carlo simulation: random number generation, probability distributions, Excel-based simulation. Project risk simulation: PERT/CPM with activity time uncertainty. Decision analysis:						

payoff tables, EMV, decision trees with Bayesian updating. Queuing theory basics: M/M/1 model, applications in operations. Research report writing: APA format, abstract, introduction, methodology, results, discussion, limitations, references.

Total periods (L:45; T:15): 60

References:

1. Cooper, D. R., & Schindler, P. S. (2017). Business research methods (13th ed.). McGraw Hill.
2. Malhotra, N. K. (2019). Marketing research (7th ed.). Pearson.
3. Taha, H. A. (2017). Operations research: An introduction (10th ed.). Pearson.
4. Anderson, D. R. et al. (2020). Quantitative methods for business (15th ed.). Cengage.
5. Saunders, M., Lewis, P., & Thornhill, A. (2019). Research methods for business students (8th ed.). Pearson.

E-Resources:

1. CMIE Prowess - Indian Company Data - <https://prowess.cmie.com>
2. MOSPI - Statistical Data - <https://mospi.gov.in>
3. SPSS - IBM Analytics - <https://www.ibm.com/spss>
4. NPTEL: Operations Research - <https://nptel.ac.in>
5. Google Scholar - <https://scholar.google.com>

COURSE OUTCOMES:

At the end of the course, students will be able to:	
CO1	Design and evaluate research methodologies for management research problems.
CO2	Develop and validate measurement instruments using reliability and validity analysis.
CO3	Collect and analyse primary and secondary Indian business data using statistical tools.
CO4	Formulate and solve LP, transportation, and assignment models for business optimisation.
CO5	Apply simulation and decision analysis techniques to business risk and uncertainty problems.

26MB207T	Entrepreneurship Development	Category	L	T	P	C
		ES (PC)	4	0	0	4
Course Objectives: - Aims to equip the knowledge and skills to identify entrepreneurial opportunities, develop a comprehensive business plan, and manage the lifecycle of a startup, from launch to sustainable growth. - Integrates theoretical frameworks with practical applications of the entrepreneurial ecosystem and ethical business practices.						
Entrepreneurial Mindset and Competencies: Entrepreneurship concept – Entrepreneurship as a Career – Entrepreneurial Personality – Characteristics of Successful Entrepreneurs – Knowledge and Skills of an Entrepreneur.						
Entrepreneurial Ecosystem and Policy Support: Entrepreneurial Environment – Role of Family, Society and Culture – Government Industrial Policies – State and Central Schemes (Startup India, Stand-Up India, PMEGP, MSME) – Role of DICs, SIDBI, EDII, TBI, DST, NSIC – Role of Industry Associations and Support Services – Incubation Centers and Accelerators – International Policy Ecosystem (Global Innovation Index, GEM).						
Opportunity Identification and Business Planning: Sources of Product for Business - Prefeasibility Study - Criteria for Selection of Product - Ownership - Capital Budgeting- Project Profile Preparation - Matching Entrepreneur with the Project - Feasibility Report Preparation and Evaluation Criteria.						
Launching Startup and Funding Mechanisms: Finance and Human Resource Mobilization - Operations Planning - Market and Channel Selection -Growth Strategies - Product Launching— Incubation, Venture capital, Start-ups.						
Managing and Scaling Business Small Business Operations – Inventory, Finance, and People Management – Customer Acquisition and Retention – Digital Tools for Small business – Measuring Business Performance — Managing Uncertainty and Change — Business Model Innovation – Lean Startup Strategy – Scaling Frameworks – Case Studies on Growth-Oriented Startups.						
Business Sustainability, Exit Strategies, and Ethics Monitoring and Evaluation of Business - Business Sickness - Prevention and Rehabilitation of Business Units - Effective Management of small Business - Case Studies.						
Total periods: 60						
References: - Hill, C. W. L., & Hult, G. T. M. (2022). International business (13th ed.). McGraw Hill. - Daniels, J. D., Radebaugh, L. H., & Sullivan, D. P. (2019). International business (16th ed.). Pearson. - Friedman, T. L. (2007). The world is flat (updated ed.). Farrar, Straus and Giroux. - Jeevanandam, C. (2014). Foreign exchange management (8th ed.). Sultan Chand.						

5. UNCTAD World Investment Report 2024 - <https://unctad.org/wir>

E-Resources:

1. WTO - Trade Statistics - <https://www.wto.org>
2. UNCTAD World Investment Report - <https://unctad.org/wir>
3. IFSCA GIFT City - <https://ifsc.gov.in>
4. RBI Forex Guidelines - <https://www.rbi.org.in>
5. DPIIT Startup India & FDI - <https://dipp.gov.in>

COURSE OUTCOMES:

At the end of the course, students will be able to:	
CO1	Apply international trade theories to explain India's trade competitiveness and policy decisions.
CO2	Analyse FDI using OLI framework and evaluate MNC strategies in the Indian context
CO3	Manage forex exposure using hedging instruments and FEMA compliance frameworks.
CO4	Evaluate market entry modes using cultural and transaction cost frameworks.
CO5	Assess geopolitical trends, ESG regulations, and GIFT City's role in India's international business strategy.



26MB208P	Management Information Systems (MIS) Lab	Category	L	T	P	C
		SD	0	0	4	2
Course Objectives: Hands-on lab building proficiency in enterprise information systems, databases, ERP systems, and MIS dashboard design for management decision-making, covering SQL, Power BI, ERP workflows, and system architecture design commonly used in Indian corporate environments.						
Module 1: MIS Concepts & Decision Support Systems						
Objective: Design a Decision Support System for a supply chain problem using Excel scenario analysis and MIS framework. - Design a DSS for a supply chain problem: model 3 decision scenarios (normal, disruption, surge) in Excel using Scenario Manager; document decision logic and output interpretation. - Map a real Indian company's MIS architecture: identify TPS, MIS, and EIS layers; present as a system architecture diagram. - Reflection: 'What decisions in your target function should NOT be delegated to an MIS? Why is human judgment irreplaceable here?'						
Module 2: SQL for Business Analysts						
Objective: Write SQL queries to extract, filter, aggregate, and join business data for management reporting. - Write 20 SQL queries on a provided business database schema (sales, inventory, HR tables) covering: SELECT, WHERE, JOIN (INNER, LEFT), GROUP BY, HAVING, ORDER BY, and subqueries. - Build 5 management reports using SQL: (1) top 10 customers by revenue, (2) month-over-month sales growth, (3) inventory items below reorder point, (4) HR attrition by department, (5) sales rep performance ranking. - SQL Challenge: faculty presents 5 unstructured business questions; students design the SQL query independently; peer review and faculty validation.						
Module 3: ERP System Simulation						
Objective: Process end-to-end business transactions in an ERP system to understand enterprise data integration. - Use SAP S/4HANA sandbox or Odoo Community to process a complete purchase-to-pay (P2P) cycle: vendor creation, purchase order, goods receipt, invoice, payment. - Process a sales-to-cash (S2C) cycle: customer creation, sales order, delivery, invoice, payment receipt; document each transaction and its impact on financial statements. - ERP Integration Exercise: trace how a single sales transaction flows through modules - Sales, Inventory, Finance, Logistics; document data integration points and business value.						

Module 4: Power BI Dashboard Design

Objective: Build a real-time MIS dashboard in Power BI connected to a SQL database tracking KPIs across business functions.

- Connect Power BI to a SQL database (SQLite/PostgreSQL); build a 4-page MIS dashboard tracking Sales KPIs, Inventory Health, HR Metrics, and Financial Ratios.
- Apply advanced Power BI techniques: DAX calculated measures, slicers, drillthrough, row-level security; present dashboard to faculty explaining each KPI's business significance.
- Dashboard Peer Review: evaluate 2 classmates' dashboards against a 10-point KPI relevance and design quality rubric; provide structured written feedback.

Module 5: Final Project - MIS Design for an Indian Company

Objective: Design and prototype a complete Management Information System for an assigned Indian company.

- Final Project - MIS Design: system architecture diagram (TPS → MIS → EIS layers), SQL database schema (minimum 5 tables with relationships), Power BI dashboard (minimum 4 KPI pages), and a 2-page business value analysis.
- Presentation: 10-minute project demo to faculty + 1 IT industry expert; demonstrate live Power BI dashboard and SQL query execution; answer 3 questions on design choices.
- Reflection: 'Which decision in your company would have the highest ROI from an MIS implementation? Justify with data.'

Total periods: 60

References

1. Laudon, K. C., & Laudon, J. P. (2018). Management information systems (15th ed.). PHI.
2. Silberschatz, A., Korth, H. F., & Sudarshan, S. (2020). Database system concepts (7th ed.). McGraw Hill.
3. Turban, E., Pollard, C., & Wood, G. (2018). Information technology for management (11th ed.). Wiley.

E-Resources

1. Odoo Community ERP - <https://www.odoo.com>
2. SAP S/4HANA Trial - <https://www.sap.com/india/developer/trials.html>
3. Microsoft Power BI Desktop - <https://powerbi.microsoft.com>
4. SQLZoo - Interactive SQL Practice - <https://sqlzoo.net>
5. NPTEL: Database Management Systems - <https://nptel.ac.in>

Mandatory Course – II Business Analytics – Intermediate & Applied	Category	L	T	P	C
	MC	0	0	0	NC
Course Objective: Apply analytics to real business problems using SQL for data access, Power BI for advanced reporting, and regression for prediction - moving from describing data to generating business intelligence.					
Module 1 – SQL for Business Data Querying					
1.1 SQL Fundamentals - Relational databases: Tables, schemas, primary keys and foreign keys - business context - Core syntax: SELECT, FROM, WHERE, ORDER BY, LIMIT, DISTINCT - with business query examples - Filtering: Comparison operators, IN, BETWEEN, LIKE, IS NULL for targeted data extraction					
1.2 Aggregation & Grouping - Aggregate functions: COUNT, SUM, AVG, MIN, MAX - applied to sales, HR and finance tables - GROUP BY for segment analysis: Revenue by region, headcount by department, orders by product - HAVING clause: Filtering aggregated results - 'show only regions with revenue above ₹50L'					
1.3 Joining Tables - INNER JOIN, LEFT JOIN: Combining customer, sales, product and employee tables - Multi-table joins: Building a single analytics view from three or more business tables - Identifying and resolving duplicate rows and unmatched records after joins					
1.4 Analytical SQL - Subqueries and CTEs: Breaking complex business questions into readable, layered steps - Window functions: ROW_NUMBER for ranking, LAG for period-over-period (MoM, YoY) comparison - Writing queries for standard business reports: Monthly revenue, top-10 customers, attrition rate					
Module 2 – Advanced Power BI – Modelling, DAX & Reports					
2.1 Data Modelling in Power BI - Star schema: Fact tables, dimension tables and relationships - building a proper data model - Power Query (M language): Merging, appending, unpivoting and transforming business data - Managing relationships: Cardinality, cross-filter direction and model performance					
2.2 DAX for Business Calculations Calculated columns vs. measures - when to use each and why it matters for performance					

- Core DAX: SUM, CALCULATE, FILTER, ALL, DIVIDE, IF, SWITCH - building real business KPIs
- Time intelligence: TOTALYTD, SAMEPERIODLASTYEAR, DATEADD for YoY and MTD analysis

2.3 Advanced Visualizations & Report Design

- Advanced visuals: Matrix, decomposition tree, key influencers and Q&A natural language visual
- Drill-through, bookmarks and tooltips for interactive analyst-grade multi-page reports
- Designing an executive dashboard: KPI header → trend chart → segment breakdown → insight callout

2.4 Power BI Service & Collaboration

- Publishing to Power BI Service: Workspaces, dashboards and report sharing
- Row-level security (RLS): Restricting data visibility by role - manager sees only their region
- Scheduling data refresh and tracking report usage for adoption analytics

Module 3 – Regression Analysis & Predictive Modelling

3.1 Simple Linear Regression

- Regression fundamentals: Dependent vs. independent variables and the line of best fit
- Interpreting output: Coefficient, R^2 , p-value and F-statistic - in plain business English
- Business applications: Sales forecasting, price elasticity, cost-volume relationships

3.2 Multiple Linear Regression

- Adding multiple predictors: Identifying which variables actually explain the outcome
- Dummy variables: Encoding categorical data - region, product type, customer segment
- Model diagnostics: Multicollinearity, residual analysis and checking assumptions

3.3 Logistic Regression for Business Classification

- Binary business outcomes: Customer churn (yes/no), loan default (yes/no), click-through (yes/no)
- Reading logistic regression output: Probability scores, odds ratios and decision thresholds
- Model evaluation: Confusion matrix, accuracy, precision, recall and ROC-AUC curve

3.4 Introduction to Machine Learning (Managerial Awareness)

- Supervised vs. unsupervised learning - business framing without mathematical derivation
- Decision trees: How the model splits data - visual walkthrough and feature importance
- Clustering (K-means): Customer segmentation, market basket grouping - intuition and output

Module 4 – Functional Analytics – Marketing, HR, Finance & Operations

4.1 Marketing Analytics

- Customer Lifetime Value (CLV), Customer Acquisition Cost (CAC) and payback period calculation
- RFM analysis (Recency, Frequency, Monetary) for customer segmentation and targeting
- Attribution modelling: First-touch, last-touch and linear attribution for campaign ROI

4.2 HR Analytics (People Analytics)

- Attrition analytics: Identifying at-risk employees using regression and decision tree models
- Recruitment funnel analysis: Time-to-hire, offer acceptance rate and source effectiveness
- Workforce diversity analytics: Representation metrics, pay equity analysis and trends

4.3 Financial Analytics

- Ratio analysis automation in Excel: Profitability, liquidity, efficiency and leverage ratios
- Variance analysis: Budget vs. actual decomposition - price-volume-mix breakdown
- DCF modelling with sensitivity analysis: Linking financial forecasting to Excel What-If tools

4.4 Operations & Supply Chain Analytics

- Process efficiency metrics: Throughput, cycle time, OEE and bottleneck identification
- Inventory analytics: EOQ, reorder point and safety stock modelling in Excel
- Delivery and logistics performance: On-time delivery rate, fill rate and 3PL cost analytics

Approved by
Academic Council Meeting

No.: 01 Dated: 21.4.26

Recommended by
Board of Studies of MBA Dept.
Meeting No.: 01 Dated: 01.4.26



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