Gates Institute of Technology
(UGC-Autonomous Institution)
Affiliated to JNTUA, Ananthapuramu & Approved by AICTE, New Delhi.
NAAC Accredited with A Grade, NBA Accredited.
NH 44, Gooty, Ananthapuramu Dist. AP-515401

MASTER OF BUSINESS ADMINISTRATION

SEMESTER – I

S. No.	Course Code	Course Name	Category	Hours per week			Credits
				L	T	P	
1.	26MBT01	Management & Organizational Behaviour	CC	4	0	0	4
2.	26MBT02	Legal and Business Environnent	CC	4	0	0	4
3.	26MBT03	Research Methodology & Statistical Analysis	CC	4	0	0	4
4.	26MBT04	Managerial Economics	CC	4	0	0	4
5.	26MBT05	Financial Accounting for Managers	CC	4	0	0	4
6.	26MBT06	AI for Business Applications	CC	3	0	0	3
7.	26MBT07	Quantum Computing for Business	MC	3	0	0	3
8.	26MBP01	**Skill Enhancement Course - I** Business Communication using AI tools	SEC	0	1	2	2
9.	26MBP02	Spreadsheet Modeling for Decision Making Lab	LC	0	1	2	2
		TOTAL		**26**	**2**	**4**	**30**

SEMESTER – II

S.No.	Course Code	Course Name	Category	Hours per week			Credits
				L	T	P	
1.	26MBT01	Financial Management	CC	4	0	0	4
2.	26MBT02	Marketing Management	CC	4	0	0	4
3.	26MBT03	Human Resource Management	CC	4	0	0	4
4.	26MBT04	Operations Management	CC	4	0	0	4
5.	26MBT05	Quantitative Techniques for Decision Making	CC	4	0	0	4
6.	26MBT06a 26MBT06b 26MBT06c 26MBT06d	**Open Elective – I** 1. Sustainability, ESG & Circular Economy 2. Design Thinking and Innovation 3. Green Business Management 4. Digital Transformation & Business Innovation	OE - 1	3	0	0	3
7.	26MBT07	**Skill Enhancement Course-II** Data Visualization for Managers	SEC	0	1	2	2
8.	26MBT08	Basic Python Programming & SQL Lab.	LC	0	1	2	2
		TOTAL		**23**	**2**	**4**	**27**
Mandatory Summer Internship / Industry oriented mini Project / Skill Development course (Minimum 4 to 6 Weeks)							

Course Code	MANAGEMENT AND ORGANISATIONAL BEHAVIOUR	L	T	P	Credits
26MBT01		4	0	0	4

I Year – I Semester

Course Overview:
This course introduces the foundational principles of management and organizational behaviour, covering managerial functions, individual and interpersonal dynamics, leadership, motivation, organizational culture, conflict resolution, and change management. It aims to develop analytical, decision-making, and critical-thinking skills through practical activities, case-based learning, and the strategic integration of Generative AI tools for managerial simulation and problem solving.

Course Objectives

- To enable students to understand fundamental management concepts, evolution of thought, and organizational theories.
- To develop proficiency in applying core managerial functions and decision-making techniques across diverse business environments.
- To provide conceptual and applied understanding of individual behavioral dimensions, including perception, learning, and personality.
- To enable critical analysis of leadership styles, motivational dynamics, and their operational efficacy in organizations.
- To develop capability in managing group dynamics, organizational conflicts, culture, and planned change processes.

Course Content

UNIT I	Introduction to Management

Content: Management Concept, Significance, Levels, and Functions; Management as an Art, Science, and Profession; Evolution of Management Thought: Classical, Neo-Classical, Behavioral, and Modern Systems Approaches; Patterns of Management Analysis.

AI Integration: Use GenAI to analyze unstructured executive case vignettes and map identified business challenges to Fayol's principles and managerial functions.
Execute structured prompt comparisons to debate a modern management issue through contrasting theoretical lenses (e.g., Taylor's Scientific Management vs. Elton Mayo's Human Relations School), followed by student evaluation of limitations

UNIT II	Functions of Management

Content: Planning: Concept, Process, and Types; Techniques of Decision Making under Certainty, Risk, and Uncertainty; Organizing: Organization Structure, Span of Control,

Delegation, Centralization vs. Decentralization; Staffing, Directing, Controlling Techniques, and Coordination Mechanisms.

AI Integration: Utilize AI tools to construct comparative Payoff Matrices and Decision Trees for risk-sensitive business scenarios.
Prompt GenAI to recommend optimal spans of control and reporting hierarchies for contrasting business models (e.g., hierarchical manufacturing unit vs. agile FinTech startup), followed by a critical student review of implementation trade-offs.

UNIT III Organizational Behaviour

Content: Meaning, Nature, and Scope of OB; Understanding Individual Behaviour; Perception: Perceptual Process, Factors Influencing Perception, Perceptual Errors and Biases; Learning: Principles and Theories (Classical Conditioning, Operant Conditioning, Social Learning); Personality: Determinants, Big Five Traits, Psychoanalytic and Psychosocial Perspectives.

AI Integration: Use GenAI to generate multi-stakeholder workplace appraisal vignettes to diagnose perceptual errors (Halo effect, Stereotyping, Fundamental Attribution Error).
Conduct prompt audits to examine algorithmic bias in AI-driven candidate screening scenarios, comparing AI-generated evaluations against standard Trait Theory dimensions.

UNIT IV Leadership and Motivation

Content: Leadership: Traits, Behavioral Approaches, Blake and Couton's Managerial Grid, Transactional vs. Transformational Leadership, Contemporary Trends, and Women Leadership in India; Motivation: Early and Content/Process Theories (Maslow, Herzberg, McClelland, Vroom, Porter-Lawler Model).

AI Integration: Direct GenAI to adopt specific leadership personas (e.g., Authoritarian, Democratic, Servant Leader) during simulated organizational crisis prompts to analyze communication outcomes.
Utilize AI text analysis on synthetic employee feedback transcripts to diagnose underlying motivational deficits mapped to Maslow's and McClelland's need frameworks.

UNIT V Group Dynamics

Content: Group Dynamics: Types, Stages of Group Development (Tuckman Model); Interpersonal Relations: Transactional Analysis and Johari Window; Management of Organizational Conflicts: Sources and Negotiation Strategies; Organizational Culture and Climate; Planned Organizational Change, Lewin's Force Field Analysis, Resistance to Change, and OD Interventions.

AI Integration: Employ AI tools to extract, synthesize, and contrast organizational culture indicators from publicly available corporate sustainability reports and corporate filings.
Simulate a digital transformation resistance scenario using Lewin's Force Field Model, prompting AI for conflict mitigation pathways and auditing the feasibility of suggested strategies.

Course Outcomes (COs)

After successful completion of the course, the student will be able to:

CO	Course Outcome Statement	Bloom's Level
CO1	Understand the fundamental concepts, theories, principles, and evolution of	L2 –

	management.	Understand
CO2	Apply various functions, principles, and techniques of management in organizational contexts.	L3 – Apply
CO3	Analyze the fundamentals of organizational behaviour, including theories of learning and personality.	L4 – Analyze
CO4	Analyze different leadership styles and theories of motivation in organizational settings.	L4 – Analyze
CO5	Evaluate group dynamics & conflict situations and suggest appropriate approaches for managing them in business organizations.	L5 – Evaluate

CO-PO Mapping Matrix

Scale: 3 = High, 2 = Medium, 1 = Low, '-' = No correlation

CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2
CO1	3	2	2	2	2	3	2	2	2
CO2	3	3	2	2	2	3	2	3	2
CO3	3	3	2	2	3	3	2	3	2
CO4	3	3	3	2	3	3	2	3	3
CO5	3	3	3	2	3	3	2	3	3
CO6	3	3	3	3	3	3	3	3	3
Average	3.0	2.8	2.5	2.2	2.7	3.0	2.0	2.8	2.5

Textbooks

1. Stephen P.Robbins, Mary A. Coulter and David A. De Cenzo, "Fundamentals of Management", 14th edition, Pearson Education, New Delhi, 2023.
2. Koontz, Weirich & Cannice, "Essentials of Management: An International Innovation and Leadership perspective", 11th Edition. Tata McGraw-Hill, New Delhi, 2021.

Reference Books

1. McShane, S. L., & Von Glinow, M. A., *Organizational Behavior: Emerging Knowledge, Global Reality*, 10th Edition, McGraw Hill, 2024.
2. Kinicki, A., & Saini, D., *Organizational Behavior: A Practical, Problem-Solving Approach*, 3rd Edition, McGraw Hill, 2026.
3. Robbins & Judge, "Organizational Behavior", 20th Edition, Pearson Education, 2026.

Online Resources

1. https://bdpad.wordpress.com/wp-content/uploads/2015/05/fred-luthans-organizational-behavior-_-an-evidence-based-approach-twelfth-edition-mcgraw-hill_irwin-2010.pdf
2. https://www.geeksforgeeks.org/introduction-to-business-management/
3. https://open.umn.edu/opentextbooks/textbooks/principles-of-management
4. https://marinojdasmarinas.blogspot.com/

Course Code	LEGAL AND BUSINESS ENVIRONMENT	L	T	P	Credits
26MBT02		4	0	0	4

I Year – I Semester

Course Overview:

Legal and Business Environment provides a comprehensive understanding of the economic, legal, technological and regulatory environment in which businesses operate. The course covers Contract Act, CompaniesAct, Information Technology Act, GST, and Right to Information Act, Business Environment Analysis, Fiscal Policies and Balance of Payments. It also introduces learners to the digital economy and AI-enabled legal and business research for informed managerial decision-making

Course Objectives

Upon completion of this course, students will be able to:

- Understand the principles of contract act and companies act 2013 applicable to business organizations.
- Interpret provisions of Information Technology Act, RTI Act and GST Act.
- Apply digital tools and AI-assisted resources for business and legal decision-making.
- Analyze the internal and external business environment influencing organizations.
- Understand fiscal policies, public finance, and balance of payments in the Indian economy.

Course Content

UNIT I — Legal Environment and Indian Contract Act - 1872

Content: Legal Environment – Introduction - Definition – Classification – Sources – Indian Contract Act, 1872 – Essential Elements of Contract – Offer and Acceptance – Consideration – Capacity – Free Consent – Legality of Object.

AI Integration: Use Gen AI to create different business cases involving valid, invalid, past, present, and future consideration. Students identify the type of consideration and provide legal justification.

Provide AI with a hypothetical agreement and ask it to determine whether all essential elements of a valid contract are present. Students critically examine and correct the AI's conclusion.

UNIT II — Companies Act - 2013

Content: Companies Act - 2013 – Types of Companies – Incorporation – Memorandum of Association – Articles of Association – Prospectus – Share Capital – Corporate Governance – Board of Directors – Company Meetings – CSR – Winding up - Insolvency and Bankruptcy Code.

AI Integration: Propose a hypothetical business and use AI to develop a step-by-step company incorporation roadmap, covering key documents and regulatory stages.

Students are given a hypothetical business idea and use AI to generate a step-by-step roadmap for incorporating the company, including key documents and regulatory requirements.

UNIT III Information Technology Act - 2000

Content: Information Technology Act - 2000 – Digital Signature – E-Governance – Cyber Regulations – Penalties – RTI Act - 2005 – GST Act - 2017.

AI Integration: Use GenAI to generate a workflow showing how digital signatures are created and verified. Students compare it with legal requirements under the IT Act.
Use ChatGPT to develop a business startup scenario involving company registration, GST registration, digital signatures, e-governance portals, and RTI requests. Students audit the AI output and correct inaccuracies.

UNIT IV Introduction to Business Environment

Content: Business Environment - Meaning and Definition – Internal Environment – External Environment – PESTLE Analysis – Business Ecosystem – Industrial policy of 1991, LPG - Digital Economy.

AI Integration: Use Gen AI to perform a SWOT analysis focusing on organizational resources, culture, leadership, and capabilities. Students evaluate the accuracy and completeness of the analysis.
Prompt GenAI to design a dashboard showing environmental factors affecting a business. They validate indicators and recommend strategic actions.

UNIT V Monetary, Fiscal and Trade Policy

Content: Monetary, Fiscal and Trade Policy**:** Monetary& Fiscal Policy – EXIM Policy, Role of EXIM Bank - Balance of Payments - **WTO:** Role and functions of WTO in promoting world trade – Public Revenue and Expenditure – Public Debt – Trends in Revenue and Expenditure – Deficit Financing – Union Budget.

AI Integration: Create an AI-assisted dashboard showing trends in revenue, expenditure, debt, and deficits.
Students use AI to suggest suitable Monetary, Fiscal and Trade Policy Measures and Justify their choices.

Course Outcomes (COs)

After successful completion of the course, the student will be able to:

CO	Course Outcome Statement	Bloom's Level
CO1	Explain the fundamental concepts and principles of Business Law and Contract Act.	L2 – Understand
CO2	Analyze the legal provisions governing companies, corporate governance, CSR, and insolvency.	L4 – Analyze
CO3	Apply IT, RTI, and GST Acts to legal and regulatory issues in digital business.	L3 – Apply
CO4	Analyze business environmental factors using PESTLE and assess the impact of the Digital Economy.	L4 – Analyze

CO5	Evaluate fiscal policies and Balance of Payments and recommend measures for economic stability.	L5 – Evaluate

CO-PO Mapping Matrix

Scale: 3 = High, 2 = Medium, 1 = Low, '-' = No correlation

CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2
CO1	2	1	-	2	-	-	3	2	-
CO2	3	3	-	3	-	-	3	3	-
CO3	3	3	2	3	2	-	3	3	-
CO4	3	3	2	3	3	-	3	3	-
CO5	3	3	2	3	2	-	3	3	2
Average	**2.8**	**2.6**	**2 .0**	**2.8**	**2.3**	'-'	3.0	**2.8**	**2 .0**

LEARNING RESOURCES

Textbooks

1. Business Law – N.D. Kapoor, Sultan Chand & Sons, 23rd Revised Edition, 2022.
2. Business Environment – Francis Cherunilam, Himalaya Publishing House, 29th Edition, 2023.

Reference Books

1. Mercantile Law – M.C. Kuchhal & Vivek Kuchhal, Vikas Publishing House, 10th Edition, 2022.
2. Company Law – Avtar Singh, Eastern Book Company, 18th Edition, 2023.
3. Indian Economy – Ramesh Singh, McGraw Hill, 17th Edition, 2025.
4. Business Legislation for Management – P.C. Tulsian, Tata McGraw Hill, 3rd Edition, 2020.
5. Business Environment – Justin Paul, McGraw Hill, 4th Edition, 2021.

Online Resources

1. https://onlinecourses.nptel.ac.in
2. https://swayam.gov.in
3. https://www.mca.gov.in

Course Code	RESEARCH METHODOLOGY AND STATISTICAL ANALYSIS	L	T	P	Credits
26MBT03		4	0	0	4

I Year – I Semester

Course Overview

This course introduces business research methods and statistical techniques for collecting, analysing, and interpreting data. It covers research design, sampling, descriptive statistics, probability, correlation, regression, hypothesis testing, and non-parametric methods.AI tools are integrated to support research, data analysis, interpretation, decision-making, and academic writing.

Course Objectives

Upon completion of this course, students will be able to:

- Understand the fundamental concepts, types, approaches and processes of business research.
- Apply appropriate research designs, measurement and scaling techniques, sampling methods and data collection procedures.
- Design business data using descriptive statistics, probability distributions, correlation and regression techniques.
- Apply statistical inference, hypothesis testing, parametric tests and ANOVA for research-based decision-making.
- Utilize non-parametric methods and prepare research reports while maintaining academic integrity and responsible use of AI.

Course Content

UNIT I	Business Research and Research Process

Content: Introduction: Business Research – Meaning, Nature, Scope, Importance and Role; Social Research; Research and Theory; Scientific Approach. Types and Approaches – Pure and Applied; Qualitative and Quantitative; Conceptual and Empirical; Exploratory, Descriptive and Experimental; Cross-sectional and Longitudinal; Inductive and Deductive Approaches. Research Process – Research Problem, Research Questions and Objectives; Preliminary Data Gathering; Literature Review and Research Gaps; Conceptual Framework; Variables and Constructs; Operational Definitions; Hypothesis Formulation. Research ethics, integrity and objectivity.

AI Integration: Use Gen AI to assist students in identifying and refining business research problems and research questions. Explore AI-assisted research tools to support literature review and identification of possible research gaps. Develop a preliminary conceptual framework and identify variables and constructs for a selected business research problem using AI assistance.
Discussion: Responsible and ethical use of AI in research, including verification of AI-generated information.

UNIT II	Research Design, Measurement, Sampling and Data Collection

Content: Research Design – Meaning, Importance and Components; Exploratory, Descriptive and Experimental Designs; Survey and Case Study Methods; Cross-sectional and Longitudinal Designs. Measurement and Scaling – Variables and Operationalization; Nominal, Ordinal, Interval and Ratio Scales; Likert, Semantic Differential and Guttman Scales; Reliability, Validity and Measurement Errors. Sampling – Population, Sample, Sampling Frame and Sampling Unit; Probability and Non-probability Sampling Techniques; Sample Size; Sampling and Non-sampling Errors. Data Collection – Primary and Secondary Data; Observation, Interview, Questionnaire and Schedule; Questionnaire Design; Structured and Unstructured Methods; Online Survey Tools.

AI Integration: Use GenAI to generate and refine questionnaire items based on research objectives. Design a questionnaire with AI assistance and implement it using Google Forms. Develop an AI-assisted Business Research Proposal.

UNIT III	Descriptive Statistics, Probability, Correlation and Regression

Content: Introduction to Statistics – Meaning, Scope and Significance; Business Decision-making and Business Intelligence; Data Classification and Presentation; Descriptive, Associational and Inferential Statistics. Descriptive Statistics – Mean, Median, Mode; Range, Quartile Deviation, Mean Deviation, Standard Deviation and Coefficient of Variation. Probability and Distributions – Basic Probability Rules; Binomial, Poisson and Normal Distributions; Business Applications. Correlation and Regression – Karl Pearson's and Spearman's Correlation; Simple Linear Regression; Regression Equations and Coefficients; Business Applications. AI and Statistics.

AI Integration: Use GenAI with Microsoft Excel / Google Sheets to calculate descriptive statistics, generate statistical summaries, and assist in interpreting results. Analyse a business dataset using spreadsheet and AI-assisted statistical tools and present the findings. Apply AI-assisted correlation and regression analysis to identify relationships and predict business outcomes.

Data Tool: Microsoft Excel (Data Analysis ToolPak), Google Sheets, Power BI, or Tableau Public for visualization.

UNIT IV	Statistical Inference and Hypothesis Testing

Content: Statistical Inference – Population and Sample; Sampling Distribution; Standard Error; Estimation and Confidence Intervals. Hypothesis Testing – H_0 and H_1; One-tailed and Two-tailed Tests; Significance Level; Critical Value; p-value; Type I and Type II Errors. Parametric Tests – Z-test for Means and Proportions; One-sample, Independent Two-sample and Paired-sample t-tests. ANOVA: One-way and Two-way ANOVA.

AI Integration:

Use GenAI with statistical software and spreadsheet tools to perform hypothesis tests and generate statistical outputs. ChatGPT/Claude assist in explaining statistical procedures and interpreting test results. Activity: Conduct hypothesis testing using a selected business dataset and validate AI-assisted interpretations; compare statistical and practical significance of findings and discuss managerial implications.

Data Tool: Microsoft Excel (Data Analysis ToolPak), SPSS, Google Colab (Python), and Power BI for result visualization.

UNIT V	Non-Parametric Methods and Research Report Writing

Content: Non-Parametric Methods – Characteristics and Applications; Parametric versus Non-parametric Methods. Chi-Square Test – Goodness of Fit; Test of Independence; One-sample and Paired-sample Sign Tests; Interpretation. Research Report Writing – Types, Structure and Components; Literature Review; Methodology; Analysis and Interpretation; Findings and Discussion; Conclusions; Recommendations; Managerial Implications; Limitations; References. Research Communication and Academic Integrity – Research Presentation; Plagiarism and Academic Integrity.

AI Integration: Use GenAI to assist in structuring research reports and improving clarity of academic writing. Mendeley / Zotero support citation and reference management. Activity: Prepare a mini research report using a selected dataset and present statistical findings.
Discussion: Plagiarism, academic integrity, responsible AI use and verification of AI-generated academic content.

Course Outcomes (COs)

After successful completion of the course, the student will be able to:

CO	Course Outcome Statement	Bloom's Level
CO1	Explain the fundamental concepts, types, approaches and process of business research and demonstrate awareness of research ethics and AI applications in research.	L2 (Understand)
CO2	Apply appropriate research designs, measurement and scaling techniques, sampling methods and data collection procedures to business research problems.	L3 (Apply)
CO3	Analyze business data using descriptive statistics, probability, correlation and regression techniques and interpret the results.	L4 (Analyze)
CO4	Evaluate research findings using statistical inference, hypothesis testing, parametric tests and ANOVA for business decision-making.	L5 (Evaluate)
CO5	Create a structured research reports and responsible AI practices.	L6 (Create)

CO – PO Articulation Matrix (NBA)

Scale: 3 – Strong, 2 – Moderate, 1 – Slight, – No Correlation

CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2
CO1	3	3	-	2	-	1	2	2	2
CO2	3	3	-	2	2	2	2	3	2
CO3	3	3	-	-	-	3	2	3	2
CO4	3	3	-	2	2	3	2	3	2
CO5	3	3	2	2	2	2	3	3	2
Average	**3**	**3**	**2**	**2**	**2**	**2.2**	**2.2**	**2.8**	2

LEARNING RESOURCES

Textbooks

1.K. Kothari, C. R. & Garg, Gaurav, Research Methodology: Methods and Techniques, 4th Revised Edition, New Age International, 2019 (Reprint 2023).

2.Gupta, S. P. & Gupta, M. P., Business Statistics, 19th Revised Edition, Sultan Chand & Sons, 2019.

Reference Books

1. GuZikmund, William G., Babin, Barry J., Carr, Jon C. & Griffin, Mitch, Business Research Methods, 10th Edition, Cengage Learning, 2013.
2. Saunders, Mark N. K., Lewis, Philip & Thornhill, Adrian, Research Methods for Business Students, 8th Edition, Pearson Education, 2016.
3. Creswell, John W. & Creswell, J. David, Research Design: Qualitative, Quantitative, and Mixed Methods Approaches, 5th Edition, SAGE Publications, 2018.
4. Levin, Richard I. & Rubin, David S., Statistics for Management, 8th Edition, Pearson Education, 2017.
5. Sharma, J. K., Business Statistics, 3rd Edition, Pearson Education, 2014.

Online Resources

1. https://nptel.ac.in/courses/121106007**ta**
2. https://onlinecourses.swayam2.ac.in/e-learning/preview/imb26_mg124
3. https://www.coursera.org/specializations/social-science
4. https://www.edx.org/learn/data-analysis
5. https://www.qualtrics.com/

Course Code	MANAGERIAL ECONOMICS	L	T	P	Credits
26MBT04		4	0	0	4

I Year – I Semester

Course Overview:
Managerial Economics equips management graduates with economic concepts and analytical tools required for effective business decision-making. The course integrates microeconomic and macro-economic theories with managerial applications, enabling learners to analyze demand, production, costs, pricing strategies, market structures, and macro-economic policies. AI-enabled analytics, business intelligence tools, and digital economy concepts are incorporated to enhance data-driven managerial decisions.

Course Objectives

Upon completion of this course, students will be able to:

- Understand economic concepts and principles relevant to managerial decision-making.
- Apply demand, production and cost analysis techniques to business problems.
- Analyze market structures and pricing strategies in competitive business environment.
- Evaluate macro-economic indicators and government policies affecting business decisions.
- Utilize digital tools, AI and business analytics for managerial decision-making.

Course Content

UNIT I	Introduction to Managerial Economics

Content: Introduction: Nature and Scope of Managerial Economics – Role of Economics in Managerial Decision Making – Relationship with other disciplines - Objectives of the firm**:** Managerial theories of firm, Behavioral theories of firm, optimization techniques - Data-driven Decision Making – Business Analytics in Economics.

AI Integration: Use GenAI - To analyze sales, cost, demand, or pricing data and generate managerial insights. Give AI a business scenario involving pricing, production, or resource allocation and ask it to recommend decision. Students evaluate the recommendation. Provide a small business dataset and ask AI to identify trends and recommend managerial actions. Students verify the AI-generated conclusions.

UNIT II	Theory of Demand

Content: Demand Analysis – Law of Demand – Demand Function – Elasticity of demand, types and significance of Elasticity of Demand. Demand estimation – Marketing research approaches to demand estimation. Need for Demand Forecasting -Forecasting Techniques.

AI Integration: Use AI to analyze the demand for a new product (e.g., electric scooter, online learning app). Students verify assumptions and identify factors affecting demand.
Ask GenAI to generate demand forecasts using trend analysis, moving averages, or regression. Students compare forecasts with actual data and assess accuracy.
Students use AI to analyze customer preferences from survey data and predict future demand patterns.

UNIT III Production and Cost Analysis

Content: Production Analysis: Production function - Isoquants and Isocosts - Production function - Cobb-Douglas Production Function - Returns to Scale and Returns to Factors- Economies of scale - Cost concepts - Cost curves - Cost-output relationship - Break Even Analysis.

AI Integration: Use AI tools to analyze production relationships, evaluate input optimization, assess economies of scale, interpret cost behavior, perform break-even analysis, and critically validate AI-generated managerial insights for effective operational decision-making.

UNIT IV Market Structure and Pricing Practices

Content: Market Structure and Pricing practices: Features and Types of different competitive situations - Price-Output determination in Perfect competition - Monopolistic competition. Pricing philosophy – Pricing methods and strategies - Digital Market Competition.

AI Integration: Students use AI to generate demand, supply conditions, and analyze market equilibrium.
Use AI to simulate strategic interactions among a few firms. Students compare outcomes under cooperation and competition.

UNIT V Macro-economic Analysis for Business Decisions

Content: Inflation – Definition and meaning-characteristics of Inflation - types of inflation - effects of inflation- Anti-Inflationary methods - Business Cycles – Definition and characteristics of business cycles-phases of business cycle - steps to avoid business cycle - Digital Currency – Global Business Environment.

AI Integration: Ask AI to analyze inflation trends and classify inflation types.
Students use AI to create a dashboard tracking inflation, GDP growth, exchange rates, and policy indicators.
Students explore how government expenditure and taxation influence aggregate demand using GenAI.

Course Outcomes (COs)

After successful completion of the course, the student will be able to:

CO	Course Outcome Statement	Bloom's Level
CO1	Explain the principles and concepts of managerial economics for business decision-making.	L2 – Understand
CO2	Apply demand, production and cost analysis techniques to managerial problems.	L3 – Apply
CO3	Analyze market structures and pricing strategies in competitive environments.	L4 – Analyse
CO4	Evaluate macro-economic indicators and government policies affecting business decisions.	L5 – Evaluate

CO5	Utilize AI-enabled analytical tools and business analytics for managerial decision-making.	L4 – Analyse

CO-PO Mapping Matrix

Scale: 3 = High, 2 = Medium, 1 = Low, '-' = No correlation

CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2
CO1	2	1	-	2	-	2	3	2	2
CO2	3	3	-	3	-	2	3	3	3
CO3	3	3	-	3	-	2	3	3	3
CO4	3	3	-	3	-	2	3	3	3
CO5	3	3	-	3	-	3	3	3	3
Average	**2.8**	**2.6**	**-**	**2.8**	**-**	**2.2**	**3.0**	**2.8**	**2.8**

LEARNING RESOURCES

Textbooks

1. Geetika, Ghosh, P., & Roy Chaudhury, P. (2021). *Managerial Economics* (3rd ed.). S. Chand Publishing.
2. Mehta, P. L. Managerial Economics: Analysis, Problems and Cases (17th ed.). Sultan Chand & Sons.

Reference Books

1. Dwivedi, D. N. (2015). Managerial Economics (8th ed.). Vikas Publishing House.
2. Ahuja, H. L. *Managerial Economics* (8th ed.). S. Chand & Company.
3. Samuelson, P. A., & Nordhaus, W. D. *Economics* (Indian ed.). Tata McGraw-Hill.
4. Jhingan, M. L. Macro-Economic Theory (11th ed.). Vrinda Publications.
5. Varshney, R. L., & Maheshwari, K. L. *Managerial Economics* (19th ed.). Sultan Chand & Sons.

Online Resources

1. https://onlinecourses.nptel.ac.in/noc21_mg90/preview
2. https://onlinecourses.nptel.ac.in/noc20_mg67/preview
3. https://www.coursera.org/learn/economics
4. https://www.imf.org/en/Capacity-Development/Training/ICDTC
5. https://dbie.rbi.org.in

Course Code	FINANCIAL ACCOUNTING FOR MANAGERS	L	T	P	Credits
26MBT05		4	0	0	4

I Year – I Semester

Course Overview:
Financial Accounting for Managers provides a foundation in accounting principles, recording business transactions, preparation and interpretation of financial statements, financial statement analysis, and contemporary accounting practices including ERP, ESG reporting and AI-enabled accounting systems.

Course Objectives

Upon completion of this course, students will be able to:

- Demonstrate a strong foundation in concepts, principles and standards of financial accounting.
- Develop the ability to record, classify and summarize business transactions.
- Enable preparation and interpretation of financial statements for managerial decision-making.
- Develop analytical skills for evaluating financial performance.
- Familiarized learners with digital accounting systems and emerging financial reporting practices.

Course Content

UNIT I Foundations of Financial Accounting

Content: Introduction to Accounting: Definition, Nature, Importance and Objectives of Accounting – Accounting Principles, Concepts and Conventions – Single Entry and Double Entry Systems – Classification of Accounts – Rules of Debit and Credit – Overview of Indian Accounting Standards. (Only theory)

AI Integration: Interact with AI as a virtual accounting tutor by asking why particular accounts are debited or credited. They prepare a summary of the explanations and verify those using accounting rules.
Students provide financial information to an AI tool and ask it to recommend business decisions. Students critically assess whether the recommendation is financially and logically appropriate.

UNIT II The Accounting Process

Content: Journal – Ledger – Trial Balance – Methods of Depreciation – Inventory Valuation Methods – GST Accounting Basics (Simple problem on Journal Entry).

AI Integration: Tally/Zoho Books AI for journal and ledger preparation.
Spreadsheet-based inventory valuation.

UNIT III Preparation of Financial Statements

Content: Final Accounts: Preparation of Trading Account – Profit and Loss Account – Balance Sheet with adjustments – Cash Flow Statement (Theory and Problems on Final Accounts).

AI Integration: Use ChatGPT to interpret financial statements. With the help of Spreadsheet cash-flow preparation

UNIT IV Financial Statement Analysis

Content: Comparative Statement – Common Size Statement – Trend Analysis – Ratio Analysis – DuPont Analysis – Altman's Z-Score – Interpretation (Theory and Case study on Ratio Analysis).

AI Integration: Use Excel/Python with AI assistance to compare 3–5 years of financial statements and automatically highlight significant changes.
Build an AI-assisted financial dashboard that calculates and interprets major financial ratios.

UNIT V Accounting for Strategic Decisions

Content: Accounting Information Systems - Computerized Accounting and Enterprise Resource Planning (ERP) – Financial Statement Analytics – Sustainability and Integrated Reporting - ESG Reporting - AI Applications in Accounting - Emerging Trends in Digital Accounting.

AI Integration: Use Chat Gpt for ERP demonstration. Prepare AI-assisted ESG report analysis. Case study using ChatGPT/Gemini.

Course Outcomes (COs)

After successful completion of the course, the student will be able to:

CO	Course Outcome Statement	Bloom's Level
CO1	Apply the concepts, principles and standards of financial accounting in recording business transactions.	L3 – Apply
CO2	Prepare accounting records using appropriate accounting procedures.	L3 – Apply
CO3	Prepare and interpret financial statements for managerial decision-making.	L4 – Analyze
CO4	Analyze financial performance using financial statement analysis techniques.	L4 – Analyze
CO5	Analyze contemporary accounting practices and reporting systems for strategic business decisions.	L4 – Analyze

CO-PO Mapping Matrix

Scale: 3 = High, 2 = Medium, 1 = Low, '-' = No correlation

CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2
CO1	3	2	2	2	-	2	3	2	-
CO2	3	3	-	-	-	3	3	3	-
CO3	3	3	-	-	-	3	3	3	-
CO4	3	3	-	-	-	3	3	3	-
CO5	3	3	-	2	-	3	3	3	2
Average	**3.0**	**2.8**	**2.0**	**2.0**	**-**	**2.8**	**3.0**	**2.8**	**2.0**

LEARNING RESOURCES

Textbooks

1. Maheshwari, S. N., & Maheshwari, S. K. (2022). *Financial Accounting* (8th ed.). Vikas Publishing House Pvt. Ltd., New Delhi.
2. Ramachandran, N., & Kakani, R. K. (2022). *Financial Accounting for Management* (4th ed.). McGraw Hill Education (India) Pvt. Ltd., New Delhi.

Reference Books

1. Narayanaswamy, R. (2021). *Financial Accounting: A Managerial Perspective* (7th ed.). PHI Learning Pvt. Ltd., New Delhi.
2. Jain, S. P., & Narang, K. L. *Advanced Accountancy, Vol. I* (6th ed.). Kalyani Publishers, Ludhiana.
3. Bhattacharyya, A. K. (2020). *Financial Accounting for Business Managers* (5th ed.). PHI Learning Pvt. Ltd., New Delhi.
4. Romney, M. B., & Steinbart, P. J. (2021). *Accounting Information Systems* (15th ed.). Pearson Education.
5. Kaplan, R. S., & Atkinson, A. A. *Advanced Management Accounting* (3rd ed.). Pearson Education.

Online Resources

1. https://nptel.ac.in/courses/110107073
2. https://nptel.ac.in/courses/110101004
3. https://www.coursera.org/learn/financial-accounting
4. https://www.coursera.org/specializations/financial-reporting-accounting-standards
5. https://www.icai.org/post/accounting-standards

Course Code	AI FOR BUSINESS APPLICATIONS	L	T	P	Credits
26MBT06		3	0	0	3

I Year – I Semester

Course Overview:
This course provides management students with a foundational understanding of Artificial Intelligence and its strategic application across enterprise functions. It bridges the gap between high-level business strategy and technical execution, equipping future leaders to responsibly deploy AI technologies, streamline operations, and drive data-centric decision-making in a corporate environment.

Course Objectives

Upon completion of this course, students will be able to:

- To differentiate AI from traditional analytics and understand its strategic value in an enterprise context.
- To grasp the foundational mechanics of Machine Learning, Neural Networks, and Generative AI without requiring advanced programming skills.
- To apply Generative AI tools and prompt-engineering techniques to automate and enhance managerial knowledge work.
- To analyse the impact and algorithmic workflows of AI technologies across core corporate functions such as Finance, Marketing, Operations, and Human Resource Management.
- To evaluate strategic "build vs. buy" technology decisions and assess organizational readiness for AI integratio.

Course Content

UNIT I Foundations of Artificial Intelligence for Business

Content: The Evolution of AI in Business; Differentiating AI from traditional descriptive and predictive analytics; Data as a Strategic Asset (Volume, Velocity, Variety, Veracity, Value); Formulating an AI Strategy; Assessing organizational data readiness and calculating AI Return on Investment (ROI).

AI Integration: Hands-on use of an AI-opportunity canvas / AI-readiness scorecard to diagnose a real organization's data and process maturity, benchmarking a legacy enterprise against a digital-native peer to identify high-impact AI use cases.

UNIT II AI Technologies and Tools for Business

Content: Core Mechanics of Machine Learning (Supervised, Unsupervised, Reinforcement); Introduction to Deep Learning & Neural Networks; Natural Language Processing (NLP) & Computer Vision; Cloud Infrastructure for AI (AWS, Azure, Google Cloud); The "Build vs. Buy" Dilemma in enterprise architecture.

AI Integration: Hands-on demonstration of a no-code/AutoML platform (e.g., Google Teachable Machine or Microsoft Azure ML Studio) to build a simple classification model, followed by mapping ML algorithm types to business problems such as customer churn prediction and market segmentation.

UNIT III Generative AI, Large Language Models & Prompt Engineering

Content: Architecture overview of Generative AI and LLMs (Transformers); The Hallucination Challenge and factual reliability risks; Prompt Engineering Principles (Zero-shot vs. few-shot prompting); Automating Knowledge Work (document summarization, meeting analytics); Advanced GenAI Frameworks (Agentic AI, RAG).

AI Integration: Practical applications of designing effective prompts, context setting, and iterative refinement for drafting professional managerial communications.

UNIT IV Functional AI Applications Across Corporate Domains

Content: AI in Finance (Algorithmic trading workflows, fraud detection); AI in Marketing (Hyper-personalization, dynamic pricing, chatbots); AI in Operations (Supply chain forecasting, digital twins); AI in Human Resource Management (Automated resume parsing, employee retention modeling); Cross-Functional Integration.

AI Integration: Case-based evaluation of integrating algorithmic workflows and commercial APIs within specific departmental silos to optimize target parameters.

UNIT V AI Governance, Ethics, Risk Management & Future Trends

Content: Ethical AI Frameworks (Algorithmic bias, fairness, the "Black Box" explainability problem); Data Privacy and Regulatory Compliance (GDPR, EU AI Act); Change Management for reskilling workforces; Cybersecurity vulnerabilities and AI defenses; Future of Enterprise AI (Quantum AI, sustainable/green AI).

AI Integration: Designing a corporate AI governance policy that balances innovation with risk mitigation and responsible AI deployment.

Course Outcomes (COs)

After successful completion of the course, the student will be able to:

CO	Course Outcome Statement	Bloom's Level
CO1	**Explain the foundational concepts, evolution, and core technologies of Artificial Intelligence in a business context.**	L2 – Understand
CO2	Apply Generative AI tools and prompt engineering principles to automate and enhance managerial knowledge work.	L3 – Apply
CO3	Analyse the impact and algorithmic workflows of AI technologies across various functional domains such as Finance, Marketing, and Operations.	L4 – Analyse
CO4	Evaluate strategic "build vs. buy" technology decisions and assess an organization's readiness for AI integration.	L5 – Evaluate
CO5	Create a comprehensive, ethical AI adoption strategy that addresses regulatory compliance, data privacy, and enterprise change management.	L6 – Create

CO-PO Mapping Matrix

Scale: 3 = High, 2 = Medium, 1 = Low, - = No correlation

CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2
CO1	2	1	-	2	-	-	3	2	-
CO2	3	3	2	3	2	-	3	3	2
CO3	3	3	2	3	2	-	3	3	2
CO4	3	3	2	3	3	-	3	3	2
CO5	3	3	2	3	2	-	3	3	2
Average	2.8	2.6	2.0	2.8	2.2	-	3.0	2.8	2.0

LEARNING RESOURCES

1. Pavankumar Gurazada, Seema Gupta, *Generative AI for Business*, Wiley, 2026.
2. Larissa Adamiec, Deborah Cernauskas, *Foundations of AI for Business*, Kendall Hunt, 2026.

Reference Books

1. Ayal Steinberg, Carlo Appugliese, Paul Hake, Simon Bisson, Generative AI for Business, O'Reilly Media, 2025.
2. Wolfgang Ertel, Introduction to Artificial Intelligence, Springer.
3. Thomas H. Davenport, Nitin Mittal, All-In on AI: How Smart Companies Win Big with Artificial Intelligence, Harvard Business Review Press.
4. Kissinger, H. A., Schmidt, E., & Huttenlocher, D. (2021). *The Age of AI: And Our Human Future*. Little, Brown and Company.
5. Iansiti, M., & Lakhani, K. R. (2020). *Competing in the Age of AI*. Harvard Business Review Press.

Online Resources

1. Preview: An Introduction to Artificial Intelligence | SWAYAM
2. Preview: Artificial Intelligence: Knowledge Representation and Reasoning | SWAYAM
3. Preview: Artificial Intelligence : Search Methods For Problem solving | SWAYAM
4. https://www.coursera.org
5. https://swayam.gov.in

Course Code	QUANTUM COMPUTING FOR BUSINESS	L	T	P	Credits
26MBT07		3	0	0	3

I Year – I Semester

Course Overview:
This course equips MBA students with a foundational, managerial understanding of quantum computing, its disruptive potential across industries, and the strategic frameworks needed to prepare organizations for future technological shifts. It bridges the gap between complex quantum concepts and practical business applications without requiring advanced physics or programming.

Course Objectives

Upon completion of this course, students will be able to:

- Introduce MBA students to the basic concepts and business relevance of quantum computing.
- Explain quantum computing in simple terms without requiring advanced mathematics, physics or programming.
- Identify potential applications of quantum computing in finance, supply chain, cybersecurity, analytics and other business areas.
- Enable students to evaluate the benefits, limitations, costs and risks of quantum technology adoption.
- Explore the impact of quantum computing on business analytics, Artificial Intelligence and managerial decision-making.

Course Content

UNIT I Introduction to Quantum Computing

Content: Introduction to quantum computing, Classical computing vs. quantum computing. What is a qubit? Superposition, entanglement. How quantum computers process information – simple overview, Current status of quantum computing, why quantum computing matters to business, Industries exploring quantum computing.

AI Integration: Guided demo of quantum-state visualization tools (e.g., IBM Quantum Composer) with zero coding required

UNIT II Quantum Algorithms and Business Applications

Content: What is a quantum algorithm? Grover's algorithm – simple idea and search applications, Shor's algorithm. Quantum computing for business optimization problems: Applications in finance and financial service, supply chain and logistics, cybersecurity, marketing and data analysis. Business case studies and identifying suitable quantum problems.

AI Integration: Mapping Indian quantum ecosystems against global players using competitive-landscape matrices

UNIT III Quantum Technology and Business Limitations

Content: Quantum hardware - Major types of quantum computers, Quantum technology companies and platforms, Current capabilities of quantum computers, Technology limitations: errors, noise and reliability, Cost, scalability and availability challenges. Quantum computing vs. conventional high-performance computing, Evaluating technology readiness for business adoption.

AI Integration: Tracking global venture capital funding and hardware maturity timelines using trend-analysis dashboards.

UNIT IV Quantum Computing, Data Analytics and AI

Content: Introduction to quantum-enhanced data analysis, Quantum Machine Learning (QML) – basic concept. Quantum computing and predictive analytics. Applications in customer analytics, financial forecasting and risk analysis, fraud detection and demand forecasting, Business case study on quantum data analytics.

AI Integration: Case-based exploration of predictive analytics solving supply-chain routing and drug-discovery problems

UNIT V Quantum Strategy, Ethics, Security and Future of Business

Content: Quantum computing and cybersecurity, Impact on existing encryption and data security. Privacy and data protection, Ethical issues in quantum-powered decision-making, Business risks associated with quantum technology, Managing quantum-related organizational risks, Future trends in quantum computing, Preparing organizations for the quantum era, Developing a Quantum Readiness Strategy.

AI Integration: Capstone group presentations drawing parallels between AI-governance structures and quantum technology frameworks.

Course Outcomes (COs)

After successful completion of the course, the student will be able to:

CO	Course Outcome Statement	Bloom's Level
CO1	Explain the basic concepts of quantum computing and distinguish it from classical computing	L2 – Understand
CO2	Identify and discuss potential applications of quantum computing in business and industry	L4 – Analyze
CO3	Evaluate the benefits, limitations, costs and risks associated with quantum technology adoption	L5 – Evaluate
CO4	Demonstrate the potential impact of quantum computing on business analytics, AI and decision-making.	L4 – Analyze
CO5	Analyze cybersecurity, privacy and ethical issues associated with quantum computing.	L5 – Evaluate
CO6	Develop a basic quantum-readiness and adoption strategy for a business organization.	L6 – Create

CO-PO Mapping Matrix

Scale: 3 = High, 2 = Medium, 1 = Low, '-' = No correlation

CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2
CO1	3	2	1	1	2	1	-	2	-
CO2	3	3	2	2	2	1	1	2	-
CO3	3	3	3	2	3	2	1	3	-
CO4	3	3	3	3	3	1	1	2	-

CO5	2	3	2	2	2	3	2	3	-
CO6	2	3	3	2	2	3	2	3	-
Average	**2.7**	**2.8**	**2 .3**	**2.8**	**2.0**	2.3'	1.8	**1.0**	**2 .5**

LEARNING RESOURCES

Text Books

1. Jack D. Hidary, Quantum Computing: An Applied Approach, 2nd Edition, Springer, 2021.
2. Chris Bernhardt, Quantum Computing for Everyone, MIT Press, 2019.

Reference Books

1. Michael A. Nielsen and Isaac L. Chuang, Quantum Computation and Quantum Information, 10th Anniversary Edition, Cambridge University Press, 2010.
2. Robert S. Sutor, Dancing with Qubits: How Quantum Computing Works and How It Can Change the World, Manning Publications.
3. Eleanor G. Rieffel and Wolfgang H. Polak, Quantum Computing: A Gentle Introduction, MIT Press, 2011.
4. Phillip Kaye, Raymond Laflamme and Michele Mosca, An Introduction to Quantum Computing, Oxford University Press, 2007.
5. David McMahon, Quantum Computing Explained, Wiley-Interscience, 2008.David McMahon, Quantum Computing Explained, Wiley-Interscience, 2008.

Online Resources:

1. https://onlinecourses.nptel.ac.in
2. https://swayam.gov.in
3. https://www.mca.gov.in

Course Code	BUSINESS COMMUNICATION USING AI TOOLS	L	T	P	Credits
26MBP01		0	1	2	2

I Year – I Semester

Course Overview:

- Business Communication using AI Tools equips students with modern professional communication capabilities by blending classical managerial communication principles with state-of-the-art Generative AI technologies. The curriculum spans verbal, non-verbal, written, interpersonal, visual, and strategic communication. Students learn to deploy Large Language Models, AI writing assistants, and multimodal presentation tools responsibly—emphasizing prompt craftsmanship, critical editing, human-in-the-loop oversight, corporate confidentiality, and ethical communication governance.

Course Objectives

Upon completion of this course, students will be able to:

- To impart foundational principles, processes, models, and barriers of effective business communication.
- To build proficiency in prompt engineering and GenAI tools for drafting, refining, and synthesizing executive business correspondence.
- To develop interpersonal, oral, negotiation, and cross-cultural communication competencies through AI-driven behavioral simulations.
- To master data storytelling, visual presentation design, and professional personal branding using modern digital and AI platforms.
- 5. To instill rigorous standards of communication ethics, intellectual property compliance, algorithmic bias auditing, and strategic crisis management

Course Content

UNIT I	Fundamentals of Business Communication and AI-Assisted Communication

Content: Business Communication: Meaning, Nature, Scope, and Significance; The Communication Process and Models; Formal vs. Informal, Directional Communication Flows (Upward, Downward, Horizontal, Diagonal); Barriers to Communication and Semantic Noise; The 7 Cs Framework in Digital Ecosystems; Introduction to Generative AI & LLMs in Communication; Context Drift, Prompt Structure, and the Human-in-the-Loop Concept.

AI Integration: AI Integration (Prompt Engineering & 7 Cs Quality Audit):
Formulate structured prompt templates (Few-Shot / Context-Role Prompts) to transform unrefined, ambiguous business inputs into professional memos - Execute a comparative audit evaluating human vs. AI-drafted messages against the 7 Cs of communication.

UNIT II	AI-Assisted Written Business Communication

Content: Principles of Executive Writing; Business Correspondence: Inquiry, Complaint, Adjustment, and Persuasive Letters; Internal Memos, Circulars, Notices, and Minutes of Meetings (MoM); Formal Business Reports: Structure, Data Synthesis, and Executive Summaries; Professional Email Etiquette and Writing for Digital Platforms.

AI Integration: AI Integration (Executive Synthesis & Action Extraction):

Ingest unstructured multi-party meeting transcripts into an LLM to automatically generate formal Minutes of Meetings (MoM) and an Action-Item Matrix.

Audit and edit AI-condensed executive summaries to eliminate hallucinations and preserve core strategic meaning

UNIT III | AI for Oral, Interpersonal and Professional Communication

Content: Oral Communication: Principles of Persuasive Speaking; Active and Empathetic Listening; Questioning Strategies; Interpersonal Dynamics, Group Discussions, and Team Collaboration; Negotiation Frameworks and Conflict Management; Virtual Meeting Etiquette and Cross-Cultural Communication; Emotional Intelligence in Executive Interactions.

AI Integration: AI Integration (Conversational Role-Play & Speech Analytics):

Engage with GenAI in multi-turn role-playing simulations for high-stakes scenarios (e.g., performance appraisals, vendor negotiations, customer escalation handling).

Use AI speech coaching tools (e.g., MS Speaker Coach / Yoodli) to receive diagnostic analytics on pace, tonal variation, clarity, and filler-word usage.

UNIT IV | AI-Assisted Presentations, Corporate Communication and Professional Branding

Content: Executive Presentations: Structure, Audience Analysis, and Visual Communication; Data Storytelling: Translating Complex Quantitative Datasets into Visual Narratives; Corporate Identity, Public Relations, and Social Media Branding; Professional Branding: Resume Architecture, Cover Letters, and LinkedIn Profile Optimization; Interview Communication Strategies.

AI Integration: AI Integration (Visual Storytelling & Profile Optimization):

Transform structured business datasets into interactive, slide-based visual narratives using AI presentation tools (PowerPoint Copilot / Gamma / Canva AI).

Benchmark and optimize professional profiles/resumes against target executive Job Descriptions using ATS-scoring AI algorithms.

UNIT V | Responsible AI, Ethical Communication and Strategic Business Communication

Content: Ethical Business Communication, Privacy, and Corporate Data Protection; Intellectual Property, Copyright, and Attribution in Generative Outputs; Algorithmic Bias, Misinformation, Disinformation, and Hallucination Containment; Mandatory AI Disclosures and Transparency; Crisis Communication and Strategic Stakeholder Management; Future of Work and AI-Enabled Corporate Communication.

AI Integration: AI Integration (Crisis Simulation & Governance Portfolio):

Simulate a corporate PR/data crisis, using AI to draft tailored, multi-channel stakeholder communication under tight ethical and regulatory guidelines.

Compile an Executive Communication Portfolio featuring AI-assisted business artifacts accompanied by an official "AI Use & Verification Disclosure Statement."

Course Outcomes (COs)

After successful completion of the course, the student will be able to:

CO	Course Outcome Statement	Bloom's Level
CO1	Understand the principles, processes, types, barriers, and importance of effective business and AI-assisted communication.	L2 – Understand
CO2	Apply communication principles and AI tools to prepare, revise, summarize, and enhance professional communication.	L3 – Apply
CO3	Analyse verbal, non-verbal, interpersonal, organizational, and professional communication using appropriate techniques and AI simulations.	L4 – Analyse
CO4	Evaluate AI-assisted presentations, corporate communication, professional branding, and digital communication for clarity and effectiveness.	L5 – Evaluate
CO5	Create AI-enabled strategic communication solutions integrating ethical AI, stakeholder needs, and organizational objectives.	L6 – Create

CO-PO Mapping Matrix

Scale: 3 = High, 2 = Medium, 1 = Low, -= No correlation

CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2
CO1	2	2	2	3	2	1	2	2	-
CO2	3	2	2	2	2	2	3	3	-
CO3	3	3	3	3	3	2	3	3	-
CO4	3	3	3	3	3	3	3	3	-
CO5	3	3	3	3	3	3	3	3	2
Average	**2.8**	**2.6**	**2.6**	**2.8**	**2.6**	**2.2**	**2.8**	**2.8**	**2.0**

LEARNING RESOURCES

Textbooks

1. Guffey, M. E., & Loewy, D. (Current Edition). *Business Communication: Process & Product*. Cengage.
2. Bovee, C. L., & Thill, J. V. (Current Edition). *Business Communication Today*. Pearson.

Reference Books

1. Murphy, H. A., Hildebrandt, H. W., & Thomas, J. P. (Current Edition). *Effective Business Communication*. McGraw-Hill.
2. Locker, K. O., & Kaczmarek, S. (Current Edition). *Business Communication: Building Critical Skills*. McGraw-Hill.

3. Adler, R. B., Elmhorst, J. M., & Lucas, K. (Current Edition). *Communicating at Work*. McGraw-Hill.
4. Russell, S., & Norvig, P. (2021). *Artificial Intelligence: A Modern Approach* (4th ed.). Pearson.
5. Raman, M., & Singh, P. (Current Edition). *Business Communication*. Oxford University Press.

Online Resources

1. https://nptel.ac.in/courses/110105052?utm_source=chatgpt.com
2. https://www.edx.org/learn/business-communications?utm_source=chatgpt.com
3. https://www.coursera.org/learn/generative-ai-for-everyone?utm_source=chatgpt.com
4. https://www.coursera.org
5. https://swayam.gov.in

Course Code	SPREADSHEET MODELING FOR DECISION MAKING LAB	L	T	P	Credits
26MBP02		0	1	2	2

I Year – I Semester

Course Overview:

Spreadsheet Modeling for Decision Making Lab develops practical skills in using spreadsheets for data management, analysis, modeling, and decision-making.It covers formulas, functions, financial modeling, what-if analysis, forecasting, dashboards, and business applications in Marketing, Finance, HR, andOperations.AI-assisted spreadsheet tools are integrated for formula generation, data interpretation, visualization, and insight generation, with emphasis on verification and managerial judgment.

Course Objectives

Upon completion of this course, students will be able to:

- Understand the principles, processes, types, and significance of effective business communication.
- Apply AI tools to create, refine, summarize, and enhance professional business communication.
- Analyse verbal, non-verbal, written, interpersonal, and organizational communication practices.
- Demonstarte AI-assisted communication for clarity, accuracy, professionalism, inclusiveness, ethics, and appropriate tone.
- Develop effective AI-assisted business documents, presentations, messages, and communication strategies for managerial contexts.

Course Content

UNIT I — Spreadsheet Fundamentals and Business Data Analysis

Content: Spreadsheet Interface – Workbook and Worksheet – Data Entry and Formatting – Cell References – Relative and Absolute References – Basic Formulas – Mathematical Operators – Basic Functions – SUM – AVERAGE – MIN – MAX – COUNT – COUNTA – Sorting and Filtering – Conditional Formatting – Data Validation – Tables – Basic Business Data Analysis.

AI Integration: Use AI to identify suitable Excel functions for a given business problem. Analyze a business dataset using sorting, filtering, conditional formatting, and basic formulas. Verify AI-generated formulas and compare them with manually developed formulas.

UNIT II — Spreadsheet Modeling for Functional Business Applications

Content: Business Calculations – IF Function – Nested IF – COUNTIF – SUMIF – AVERAGEIF – VLOOKUP / XLOOKUP – INDEX and MATCH – Text Functions – Date Functions – Marketing Models – Sales Analysis – Customer Analysis – Financial Models – Revenue and Cost Analysis – Profit and Profit Margin – HR Models – Salary and Employee Analysis – Operations Models – Inventory and Stock Analysis.

AI Integration: Use GenAI:
Develop a sales and customer analysis model using spreadsheet functions.
Develop a simple revenue, cost, profit, and profitability model.
Prepare an employee salary and workforce analysis model.
Develop a basic inventory analysis model.

UNIT III PivotTables, Charts and Business Dashboards

Content: PivotTables – PivotCharts – Data Summarization – Grouping and Categorization – Slicers – Business Charts – Column Charts – Bar Charts – Line Charts – Pie Charts – Scatter Charts – Combination Charts – KPI Development – Dashboard Design – Business Performance Dashboard – Sales Dashboard – Financial Dashboard – HR Dashboard – Interactive Spreadsheet Reports.

AI Integration: Use AI Tool: Microsoft Copilot – analyse spreadsheet data and recommend suitable charts and visualizations.
Develop a sales dashboard containing revenue, sales volume, product, and regional KPIs.
Develop an HR dashboard containing employee strength, salary, attrition, and department-wise KPIs.
Use AI to interpret dashboard results and generate managerial insights.

UNIT IV Analysis, Forecasting and Decision Modeling

Content: What-If Analysis – Goal Seek – Scenario Manager – Data Tables – Sensitivity Analysis – Break-Even Analysis – Pricing Decisions – Cost-Volume-Profit Analysis – Sales Forecasting – Trend Analysis – Moving Average – Basic Forecasting – Demand Forecasting – Budgeting – Resource Allocation – Decision Models – Alternative Evaluation – Spreadsheet-Based Decision Support.

AI Integration: Use AI Tool:
Microsoft Copilot / ChatGPT – assist in developing what-if scenarios and interpreting results.
Analyse the effect of changes in price, cost, and sales volume on profit.
Develop best-case, expected-case, and worst-case business scenarios.
Develop a simple sales or demand forecasting model.
Use AI to interpret forecasting results and prepare managerial recommendations.

UNIT V Integrated Spreadsheet Modeling and AI-Assisted Decision-Making

Content: Integrated Spreadsheet Models – Multiple Worksheets – Linking Worksheets – Data Consolidation – Business Performance Analysis – Financial Decision Models – Marketing Decision Models – HR Decision Models – Operations Decision Models – Management Dashboards – AI-Assisted Spreadsheet Modeling – AI-Generated Formulas – AI-Assisted Data Interpretation – AI-Assisted Visualization – Verification of AI Outputs – Model Accuracy – Business Assumptions – Managerial Recommendations – Spreadsheet-Based Decision Support – Development of an Integrated Business Model.

AI Integration: Use AI Tools:
Microsoft Copilot / ChatGPT – assist in developing formulas, analysing results, and improving spreadsheet models.
Develop an integrated business model using sales, cost, revenue, and profit data.
Create an AI-assisted management dashboard with KPIs and managerial insights.
Compare manually developed and AI-assisted spreadsheet models.
Develop an integrated spreadsheet-based decision-support model for a selected Marketing, Finance, HR, or Operations problem.

Course Outcomes (COs)

After successful completion of the course, the student will be able to:

CO	Course Outcome Statement	Bloom's Level
CO1	Understand fundamental spreadsheet concepts, formulas, functions, and business data analysis techniques.	L2 – Understand
CO2	Apply spreadsheet functions and modelling techniques to solve business problems across functional areas.	L3 – Apply
CO3	Analyse business data using PivotTables, charts, KPIs, and spreadsheet-based dashboards.	L4 – Analyse
CO4	Evaluate business decisions using what-if analysis, forecasting, sensitivity analysis, and spreadsheet models.	L5 – Evaluate
CO5	Create AI-assisted spreadsheet models and dashboards to support real-world managerial decision-making.	L6 – Create

CO-PO Mapping Matrix

Scale: 3 = High, 2 = Medium, 1 = Low, -= No correlation

CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2
CO1	2	3	1	1	1	3	2	2	-
CO2	3	3	1	1	2	3	3	3	-
CO3	3	3	1	2	2	3	3	3	-
CO4	3	3	2	2	2	3	3	3	-
CO5	3	3	3	2	3	3	3	3	2
Average	**2.8**	**3.0**	**1.6**	**1.6**	**2.0**	**3.0**	**2.8**	**2.8**	**2.0**

LEARNING RESOURCES

Textbooks

1. McFedries, P. (Current Edition). *Excel 365 for Business*. Wiley.
2. Alexander, M., & Kusleika, R. (Current Edition). *Microsoft Excel 365 Bible*. Wiley.

Reference Books

1. Nelson, S. L. (Current Edition). *Excel Data Analysis For Dummies*. Wiley.

2. Alexander, M., & Walkenbach, J. (Current Edition). *Excel Dashboards and Reports*. Wiley.
3. Albright, S. C., & Winston, W. L. (Current Edition). *Business Analytics: Data Analysis & Decision Making*. Cengage.
4. Ragsdale, C. T. (Current Edition). *Spreadsheet Modeling and Decision Analysis*. Cengage.
5. Raman, M., & Singh, P. (Current Edition). *Business Communication*. Oxford University Press.

Online Resources

1. https://www.coursera.org/specializations/excel?utm_source=chatgpt.com
2. https://www.edx.org/learn/excel?utm_source=chatgpt.com
3. https://swayam.gov.in?utm_source=chatgpt.com
4. https://www.kaggle.com/learn?utm_source=chatgpt.com
5. https://swayam.gov.in