GUJARAT TECHNOLOGICAL UNIVERSITY

Program Name: Master of Business Administration

Level: PG

Course / Subject Code: MB01000011

Course / Subject Name : Essentials of Organisational Behaviour

w. e. f. Academic Year:	2024-25
Semester:	1
Category of the Course:	Core Course (CC)

Prerequisite:	Any Graduate
Rationale:	Studying Essentials of Organizational Behavior provides foundational insights into human behavior dynamics within organizational settings. It cultivates critical skills in leadership, communication, and conflict resolution, essential for effective management and team collaboration. Understanding OB enhances decision-making abilities, fostering conducive workplace culture and driving organizational success.

Course Outcome:

After Completion of the Course, Student will able to:

No	Course Outcomes	RBT Level
01	Understand the nature, scope, and importance of organizational behavior (OB) and its models.	Remember, Understand
02	Apply knowledge of organizational structure, leadership, change management, and culture building.	Understanding, Application, Analyze
03	Analyze individual attributes and their influence on organizational behavior.	Application, Analyze, Evaluate
04	Evaluate the impact of communication and group dynamics on organizational behavior.	Understanding, Analyze, Evaluate

Revised Bloom's Taxonomy (RBT)

Teaching and Examination Scheme:

Teaching Scheme (in Hours)			Total Credits L+T+ (PR/2)	Assessment Pattern and Marks				Total Marks
				Theory		Tutorial / Practical		
L	**T**	**PR**	**C**	ESE (E)	PA / CA (M)	PA/CA (I)	ESE (V)	
3	1	0	4	70	30	50	0	150

Course Content:

Unit No.	Content	No. of Hours	% of Weightage
1.	**Introduction to Organisational Behaviour :** • Organisational Behaviour: Nature, Objective, Scope, Importance, Challenges and Opportunities, Disciplines that contribute to the field of OB. • Effect of Environment factors, Personal Factors, Psychological Factors and Organisational Systems and Resources on Organisational Behaviour Models of Organisational Behaviour : Autocratic Model, Custodial Model, Supportive Model, Collegial Model and Systems Model	06	20
2.	**Individual Attributes and Organisational Behaviour:** • Emotions (Types and Sources of Emotions, OB applications of Emotions and Moods, Emotional Intelligence) • Attitudes (Job Satisfaction, Job Involvement, Organisational Commitment, Perceived Organisational Support, Employee Engagement) • Values and Ethics • Personality Factors: Meaning, Personality Frameworks, Other Personality attributes relevant to OB • Perception: Meaning, Factors influencing, Perception and Decision making in organizations: Influence of individual differences and Organisational Constraints. • Motivation: Meaning, Early and Contemporary theories of Motivation, Sources: Job Design and Work Arrangements, Employee Involvement and Participation, Rewards and Benefits. • Learning : Meaning, Importance, Determinants, Principles and Process (Various Theories)	13	30
3.	**Communication and Group Dynamics and their influence on Organization Behaviour:** • Communication: Process, Functions, Direction, Modes, Channels, Barriers • Communication forms and Purpose : Writing, Letters, Minutes of Meetings and Reports, Making Presentations and Group Discussions • Groups : Types, Development of Groups, Group norms, Group Cohesiveness, Group Decision Making • Teams : From Group to Teams, Types, Characteristics,	13	30

	Functions, Formation and Dynamics, Team effectiveness * Decision Making : Importance, Factors, Techniques * Conflict And it's resolution : Types and Causes - Psychological aspects and Structural aspects and their remedies **Negotiation and Resolution** • Leadership: Meaning, Importance, Skills & Attributes, Theories of Leadership : Trait, Behavioural, Contingency and Contemporary Theories of Leadership Power and Politics : Meaning, Sources, Tactics and Implications		
4.	**Organisation Structure, Leadership, Change Management and Culture Building** : • Organisational Structure : Meaning, Terminologies, Types and Importance, • Factors leading to need for different structures : Technology, Business Environment, Size and Strategy, Impact of Structures on Organisational Behaviour • Global Structures : Need, Types, Network Structures, SBUs • Organisational Design and Employee Behaviour : Goal Setting and Role Distribution • Change: Forces for Change, Planned Change, Resistance to Change, Approaches to Managing Organisational Change, Creating and sustaining a culture of Change and Innovation, impact on organizational behavior	13	20
5.	**Practical:** 1. Analyse the various means and processes adopted for Employee Learning and their significance in the given change scenario 2. Analyse the Behavioural Dynamics of people across diversities within an organization and try to attribute factors responsible for the same Prepare a practical letter, Report, Minutes of Meeting and a Letter on some business theme/ event you know about.	15	NIL
	Total	**60**	**100**

The course will use the following pedagogical tools:
- a) Classroom Lectures
- b) Video Cases and other Case Studies
- c) Expert / Guest Lectures
- d) Movies
- e) Group Discussions
- f) Role Plays

Suggested Specification Table with Marks (Theory):

Distribution of Theory Marks (in %)					
R Level	**U Level**	**A Level**	**N Level**	**E Level**	**C Level**
20	40	20	20	0	0

Where R: Remember; U: Understanding; A: Application, N: Analyze and E: Evaluate C: Create (as per Revised Bloom's Taxonomy)

References/Suggested Learning Resources:

(a) Books:

Sr. No.	Author	Name of the Book	Publisher	Year of Publication
1	Stephen P Robbins and Tomithy A Judge	Essentials of Organisational Behaviour	Pearson Publication	14ed.
2	Stephen P Robbins	Organisational Behaviour	PHI Publication	Latest
3	P Subba Rao	Organisational Behaviour – Texts, Cases and Games	Himalaya Publishing House	Latest
4	Meenakshi Ramman, Prakash Singh	Business Communication	Oxford Higher Edu.	Latest
5	Chaube S P	Fundamentals of Industrial Psychology	Himalaya Publishing House	Latest
6	Schein Edgar H	Organisational Psychology	PHI	Latest

Note: Wherever the standard books are not available for the topic appropriate print and online resources, journals and books published by different authors may be prescribed.

CO- PO Mapping:

Semester 1	Essentials of Organisational Behaviour (Course Code:)				
	POs				
Course Outcomes	PO1	PO2	PO3	PO4	PO5
CO1	3	2	1	-	1
CO2	2	3	1	2	2
CO3	2	3	2	3	3
CO4	3	2	3	3	2

Legend: '3' for high, '2' for medium, '1' for low and '-' for no correlation of each CO with PO.

****

GUJARAT TECHNOLOGICAL UNIVERSITY

Program Name: Master of Business Administration

Level: PG

Course / Subject Code: MB01000021

Course / Subject Name : Indian Knowledge Systems

w. e. f. Academic Year:	2024-25
Semester:	1
Category of the Course:	Core Course (CC)

Prerequisite:	Any Graduate
Rationale:	Indian Knowledge Systems (IKS) provides students a rich historical and cultural perspective and fostering a deeper understanding of traditional wisdom and its application in modern business practices. It enhances critical thinking by exploring diverse philosophical frameworks and ethical principles rooted in ancient knowledge. This subject emphasizes the importance of linguistic and logical skills, particularly in Sanskrit, which can be pivotal in advanced areas like natural language processing. After studying this subject students can develop holistic and innovative approaches to problem-solving and decision-making. Ultimately, it bridges the gap between ancient wisdom and contemporary management practices, enriching the overall educational experience.

Course Outcome:

After Completion of the Course, Student will able to:

No	Course Outcomes	RBT Level
01	Understanding the relevance and significance of ancient knowledge in contemporary times	Understand
02	Gain knowledge of the Vedic corpus and various Indian philosophical systems.	Understand
03	Explore foundational concepts of IKS, including linguistics and knowledge frameworks	Apply

Revised Bloom's Taxonomy (RBT)

Teaching and Examination Scheme:

Teaching Scheme (in Hours)			Total Credits L+T+ (PR/2)	Assessment Pattern and Marks				Total Marks
				Theory		Tutorial / Practical		
L	**T**	**PR**	**C**	ESE (E)	PA / CA (M)	PA/CA (I)	ESE (V)	
2	0	0	2	50	30	20	0	100

Course Content:

Unit No.	Content	No. of Hours	% of Weightage
1.	Indian Knowledge Systems : An Overview – Importance of Ancient Knowledge, Defining Indian Knowledge Systems, The IKS Corpus – A Classification Framework, Chaturdasha Vidyasthana, Historicity of IKS, Some unique aspects of IKS The Vedic Corpus – Introduction to Vedas and Vedangas, Indian Philosophical Systems – Samkhya, Yoga, Nyaya Vaishesika, Purva Mimansa and Vedanta. Non Vedic Philosophical Systems Introduction to Itihasa and Purana, Niti Shastras and Subhasitas	13	50
2.	Foundational Concepts of IKS – Linguistics: Components of a language, Panini's work, Phonetics in Sanskrit, Logic for Sentence Construction, Role of Sanskrit in NLP Knowledge Framework and Classification: The Knowledge Triangle, Prameya, Pramana and Samsaya. Framework for establishing Valid Knowledge	12	50
3	**Practical:** Students should be motivated to visit heritage places of their respective cities'/areas of residence. Group Discussions and Debates on topics related to IKS should be organized. Guest sessions on Purana, Vedas, Vedantas, etc. should be organized. Students should be practically taught different aasans of Yoga and Pranayam.	5	NIL
	Total	**30**	**100**

Suggested Specification Table with Marks (Theory):

Distribution of Theory Marks (in %)					
R Level	U Level	A Level	N Level	E Level	C Level
0	60%	40%	0	0	0

Where R: Remember; U: Understanding; A: Application, N: Analyze and E: Evaluate C: Create (as per Revised Bloom's Taxonomy)

References/Suggested Learning Resources:

(a) Books:

Sr. No.	Author	Name of the Book	Publisher	Year of Publication
1	B Mahadevan, Vinayak Pavana, Vinayaka Rajat Bhat	Introduction to Indian Knowledge Systems: Concepts and Applications	PHI Learning	2022
2	Ashok R Garde	Canakya on Management	Jaico Publishing	2013
3	J Sai Deepak	India that is Bharat : Coloniality, Civilization, Constitution		

Note: Wherever the standard books are not available for the topic appropriate print and online resources, journals and books published by different authors may be prescribed.

CO- PO Mapping:

Semester 1	Indian Knowledge Systems (Course Code:)				
	POs				
Course Outcomes	PO1	PO2	PO3	PO4	PO5
CO1	1	2	-	2	1
CO2	3	2	-	3	-
CO3	2	3	3	3	3

Legend: '3' for high, '2' for medium, '1' for low and '-' for no correlation of each CO with PO.

* * * * * * *

GUJARAT TECHNOLOGICAL UNIVERSITY

Program Name: Master of Business Administration

Level: PG

Course / Subject Code: MB01092011

Course / Subject Name: Management Accounting

w. e. f. Academic Year:	2024-25
Semester:	1
Category of the Course:	Core Course (CC)

Prerequisite:	Any Graduate
Rationale:	Studying Management Accounting enables students with essential skills to analyze financial data, aiding strategic decision-making and enhancing business performance. It provides tools to plan, control, and evaluate financial resources effectively, supporting cost management and profitability. Additionally, it fosters a deep understanding of budgeting, forecasting, and financial analysis, crucial for managerial roles in any business environment.

Course Outcome:

After Completion of the Course, Student will able to:

No	Course Outcomes	RBT Level
01	Understand basic financial and cost accounting principles and concepts	Understand
02	Prepare and interpret corporate financial statements and cost sheets	Apply
03	Apply marginal costing and CVP analysis techniques for profit planning and decision-making.	Apply
04	Conduct financial statement analysis using various techniques.	Analyze
05	Evaluate inventory valuation methods and depreciation techniques.	Evaluate

*Revised Bloom's Taxonomy (RBT)

Teaching and Examination Scheme:

Teaching Scheme (in Hours)			Total Credits L+T+ (PR/2)	Assessment Pattern and Marks				Total Marks
				Theory		Tutorial / Practical		
L	**T**	**PR**	**C**	ESE (E)	PA / CA (M)	PA/CA (I)	ESE (V)	
3	1	0	4	70	30	50	0	150

Course Content:

Unit No.	Content	No. of Hours	% of Weightage
1.	**Basic understanding of accounting:** • Meaning and definition • Distinction between Financial Accounting, Management Accounting and Cost Accounting. • Accounting Principles– concepts and conventions • Overview of Accounting Process • Journal Entries, Ledger-Posting and Preparation of Trial Balance • Basic overview of IFRS and Indian Accounting Standards (Ind.AS) **Understanding and Preparing Corporate Financial Statements:** Corporate Profit & Loss Account and Corporate Balance Sheet (Vertical B/S only).	11	30
2.	**Financial Statement Analysis:** • Horizontal Analysis • Vertical Analysis • Trend Analysis • Ratio Analysis • Cash Flow Statement	12	25
3.	**Inventory Valuation:** • FIFO, Weighted Average Method & LIFO (Preparation of stock register card only) **Depreciation:** • Straight line method, written-down value method. • Retrospective effect(Only Theoretical Perspective) **Cost Accounting:** • Meaning and definition of cost • Cost concepts and classification **Costing Methods:** Unit Costing, Process costing (excluding equivalent unit of production)	12	25

4.	**Profit Planning & Decision Making:** • Marginal costing & CVP Analysis • Short term decision-making	10	20
5.	**Practical:** Students should select Small & Medium Enterprise and Perform Financial Statement Analysis / Cost Analysis of any product/Service of that company. Students have to prepare a report and give the presentation in the class.	15	NA
	Total	**60**	**100**

Suggested Specification Table with Marks (Theory):

Distribution of Theory Marks (in %)					
R Level	U Level	A Level	N Level	E Level	C Level
0	30%	25%	30%	15%	0

Where R: Remember; U: Understanding; A: Application, N: Analyze and E: Evaluate C: Create (as per Revised Bloom's Taxonomy)

References/Suggested Learning Resources:

(a) Books:

No.	Author	Name of the Book	Publisher	Year of Publication/ Edition
1	M. Y. Khan & P.K. Jain	Management Accounting	McGraw-Hill	6th/Latest
2	Ambrish Gupta	Financial Accounting for Management	Pearson	5th/Latest
3	R. Narayan Swami	Financial Accounting	PHI	Latest Edition
4	P. C. Tulsian	Financial Accounting	Pearson	Latest Edition
5	V.Rajasekaran &R.Lalitha	Financial Accounting	Pearson	Latest Edition
6	M. N. Arora	A Textbook of Cost and Management Accounting	Vikas	10th / Latest
7	P. C. Tulsian	Cost Accounting	S Chand	Latest Edition
8	S Gupta & Pankaj Kothari	Accounting for Managers	Frank Brothers	Latest Edition
9	S. K. Bhattacharya and John	Costing for Management	Vikas	Latest Edition

Note: Wherever the standard books are not available for the topic appropriate print and online resources, journals and books published by different authors may be prescribed.

(b) List of Journals /Periodicals /Magazines/Newspapers/Web resources, etc.

1. The Chartered Accountant
2. The Management Accountant
3. The Chartered Secretary
4. Journal of Finance
5. Business India/Business Today /Business World
6. Business Standard/Economic Times/Financial Times /Financial Express

CO- PO Mapping:

Semester 1	Management Accounting				
	POs				
Course Outcomes	PO1	PO2	PO3	PO4	PO5
CO1	3	2	2	2	-
CO2	1	3	-	3	2
CO3	2	2	1	3	2
CO4	-	3	1	2	1
CO5	-	1	-	3	1

*Legend: '**3**' for high, '**2**' for medium, '**1**' for low and '**-**' for no correlation of each CO with PO.*

* * * * * * *

w. e. f. Academic Year:	2024-25
Semester:	1
Category of the Course:	Core Course (CC)

Prerequisite:	Any Graduate
Rationale:	Economics subject knowledge will ensure sound & timely decision making to future managers & entrepreneurs. The subject knowledge facilitates decision making in areas such as capital investment, Capacity planning & utilization, pricing, industry competitiveness & related decisions, Economic growth, country's global position, etc.

Course Outcome:

After Completion of the Course, Student will able to:

No	Course Outcomes	RBT Level
01	Remember the ten principles of economics and different microeconomics as well as macroeconomic concepts	Remember
02	Understand market forces, including supply and demand, elasticity, and economies of scale.	Understand
03	Understand the short-run trade-off between inflation and unemployment.	Understand
04	Apply different market structures and pricing strategies	Apply
05	Analyze the influence of monetary and fiscal policies on aggregate demand and supply.	Analyze

Revised Bloom's Taxonomy (RBT)

Teaching and Examination Scheme:

Teaching Scheme (in Hours)			Total Credits L+T+ (PR/2)	Assessment Pattern and Marks				Total Marks
				Theory		Tutorial / Practical		
L	**T**	**PR**	**C**	ESE (E)	PA / CA (M)	PA/CA (I)	ESE (V)	
3	1	0	4	70	30	50	0	150

Course Content:

Unit No.	Content	No. of Hours	% of Weightage
1.	**Micro Economics** Ten principles of economics The market forces of supply and demand, Elasticity and its applications, The costs and economics of production, Economies of Scale.	10	25
2.	**Market structure and Pricing:** • Perfect competition • Monopoly competition • Oligopoly competition • Monopolistic competition	11	25
3.	**Macro Economics** Measuring nation's income Measuring the cost of living Savings and investment Production and growth, Concepts of GDP, GNP, PPP. The monetary system, Money growth and inflation Open-economy macroeconomics– Basic concepts	12	25
4.	**Micro Economics** Aggregate demand and aggregate supply The influence of monetary and fiscal policy on aggregate demand The short-run trade-off between inflation and Unemployment	12	25
5.	**Practical:** The group discussion, guest sessions, assignments, case study should be arranged/discussed on the following topics. These are just suggestive list of topics, the faculty members may explore other relent areas. • Population & Development. • Sustained Budget Deficits • External Debt • Corruption • Structural Adjustment • Defense Policy • Social Security: Leading Issues and Approaches to Reform • Educational Reforms: The Role of Incentives and Choices • Poverty: Old and New Approaches to a Persistent problem • Health Care: How Much? For Whom? • Crime and Drugs: A modern Dilemma • Air Pollution: Balancing Benefits and Costs	15	NIL

	- Efficiency in Resource Allocation: How Much Do We Have? How Much Do We Want? - Market Power: Does It Help or Hurt the Economy? - Macro-Economic analysis of the Emerging Indian Sectors. - Is Gujarat Model a miracle or Disaster - Gujarat Gift city: Is it a game changer for India? - India's credit crisis - RBI hitting Paytm. - Logistics: India v/s China - Bharat Mala: Can it fix the highway crisis of India? - OCEN: Is it really useful for Indian MSME? - Geopolitical Case studies.		
Total Hours/ Weightage:		**60**	**100**

Suggested Specification Table with Marks (Theory):

Distribution of Theory Marks (in %)					
R Level	**U Level**	**A Level**	**N Level**	**E Level**	**C Level**
20%	30%	30%	20%	0	0

Where R: Remember; U: Understanding; A: Application, N: Analyze and E: Evaluate C: Create (as per Revised Bloom's Taxonomy)

References/Suggested Learning Resources:

(a) Books:

No.	Author	Name of the Book	Publisher	Year of Publication/ Edition
1	Gregory Mankiw	Economics: Principles & Applications	Cengage	Latest Edition
2	Dr D. M. Mithani	Managerial Economics: Theory & Applications	Himalaya	2010,Latest
3	R .L. Varshneyand K .L.Maheswari	Managerial Economics	Sultan Chand	19th/ Latest
4	Samuelson and Nordhaus	Economics	TMH	16th ed. /Latest

Note: Wherever the standard books are not available for the topic appropriate print and online resources, journals and books published by different authors may be prescribed.

(b) List of Journals /Periodicals /Magazines/Newspapers/Web resources, etc.

1. Harvard Business Review
2. Vikalpa–A Journal for Decision Makers
3. Management Review
4. Business Standard/Economic Times/Financial Times /Financial Express/
5. Economic & Political Weekly
6. Asian Journal of Research in Business Economics
7. Indian Journal of Economics and Development

CO- PO Mapping:

Semester 1	Economics for Manager				
	POs				
Course Outcomes	PO1	PO2	PO3	PO4	PO5
CO1	1	2	-	3	-
CO2	2	3	2	2	2
CO3	2	3	3	2	3
CO4	3	2	3	3	3
CO5	3	3	2	3	-

Legend: '3' for high, '2' for medium, '1' for low and '-' for no correlation of each CO with PO.

******

GUJARAT TECHNOLOGICAL UNIVERSITY

Program Name: Master of Business Administration

Level: PG

Course / Subject Code: MB01092031

Course / Subject Name : Information Systems and Analytics for Management Decision Making

w. e. f. Academic Year:	2024-25
Semester:	1
Category of the Course:	Core Course (CC)

Prerequisite:	Any Graduate
Rationale:	Studying Information Systems and Business Analytics will help students with essential skills to harness data-driven insights for strategic decision-making. It enhances their ability to leverage technology effectively, leading to competitive advantages in today's digital business landscape. Mastery of these subjects prepares future managers to navigate complexities and innovate within organizations, ensuring sustainable growth and operational excellence.

Course Outcome:

After Completion of the Course, Student will able to:

No	Course Outcomes	RBT Level
01	Understand organizational structures, types of decisions, and the role of Information Systems (IS) in a changing business environment	Understand
02	Apply concepts of data mining and analytics to business support functions and industries	Apply
03	Apply different types of Information Systems for strategic business uses.	Apply
04	Analyze the components and applications of Business Intelligence (BI) and Business Analytics (BA).	Analyze

*Revised Bloom's Taxonomy (RBT)

Teaching and Examination Scheme:

Teaching Scheme (in Hours)			Total Credits L+T+ (PR/2)	Assessment Pattern and Marks				Total Marks
				Theory		Tutorial / Practical		
L	T	PR	C	ESE (E)	PA / CA (M)	PA/CA (I)	ESE (V)	
3	1	0	4	70	30	50	0	150

Course Content:

Unit No.	Content	No. of Hours	% of Weightage
1.	**Organization and Information Systems:** **The Organization:** • Structure, Managers and activities. • The level of people and types of decisions and the information needs. • Changing Environment and its impact on Business – The IT/IS and its influence. **Information Systems:** • Data, information and its attributes. • Information Systems – meaning functions and dimensions and need. • Categorization of Organizational Information Systems – hierarchical and functional perspective. **Strategic business use of IS:** • Interdependence between organization and IS IS strategies for competitive advantage using Porter's Five Forces Model and Value Chain Model	10	20
2.	**Types of Information Systems:** **Hierarchical Information Systems:** • Transaction Processing Systems • Management Information Systems • Decision Support Systems • Executive Support / Information Systems **Enterprise Information Systems:** • Enterprise Resource Planning System (ERP) • Supply Chain Management Systems (SCM) • Customer Relationship Management Systems (CRM)	10	20

3.	**Business Intelligence:**
	• Definitions and Examples in Business Intelligence
	• From DSS to BI
	• Need, Features and Use of Business Intelligence (BI)
	• Components of BI
	  o Data Warehouse
	  o Business Analytics
	  o Business Performance Management
	  o User Interface
		12	30

	Business Analytics:
	 • Introduction to Business Analytics (BA)
	 • Components (Business Context, Technology, Data Science)
	 • Types of BA (Descriptive, Predictive and Prescriptive)
	 • Business Intelligence versus Business Analytics
	 • Transaction Processing v/s Analytic Processing
	   o OLTP v/s OLAP
	   o OLAP Operations
	 Business Reporting, Visual Analytics:
	 • Definition, concepts
	 • Different types of charts and graphs
	 Emergence of data visualization and visual analytics		

4.	**Data Mining:** • Concepts and applications • Data mining process **Text & Web Analytics – overview and application:** • Text analytics and text mining • Web mining • Social media analytics • Sentiment analysis overview **Analytics in Business Support Functions:** • Sales & Marketing Analytics • HR Analytics • Financial Analytics • Production and Operations analytics • Important KPI and Dashboard in each functional area **Analytics in Industries:** • Telecom, Retail, Healthcare, Financial Services • Important KPI and Dashboard in each industry	13	30
5.	**Practical:** Students should visit manufacturing/service organizations and study their information systems. Students should also study its reporting systems and analytics applications to make decisions. Students should prepare a detailed report on applications of analytics from different perspectives.	15	NIL
	Total	**60**	**100**

Suggested Specification Table with Marks (Theory):

Distribution of Theory Marks (in %)					
R Level	**U Level**	**A Level**	**N Level**	**E Level**	**C Level**
0	30%	40%	30%	0	0

Where R: Remember; U: Understanding; A: Application, N: Analyze and E: Evaluate C: Create (as per Revised Bloom's Taxonomy)

References/Suggested Learning Resources:

(a) Books:

No.	Author	Name of the Book	Publisher	Year of Publication/ Edition
1	Kenneth Laudon, Jane Laudon	Essentials of Management Information Systems	PHI	Latest
2	Kenneth Laudon, Jane Laudon	Information Systems: Managing the Digital Firm Management	Pearson	Latest
3	Stephen Haag, Amy Philips	Business Driven Technology	McGraw Hill	Latest
4	Stephen Haag, Maeve Cummings, Amy Philips	Management Information Systems for the Information Age	McGraw Hill	Latest
5	W .S .Jawadekar	Management Information Systems	TMH	Latest
6	Raymond Mc Leodand George P.Schell	Management Information systems	Pearson	Latest
7	Ramesh Sharda, Dursun Delen, Efraim Turban	Business Intelligence: A Managerial Perspective on Analytics	Pearson	Latest
8	R. N. Prasad and Seema Acharya	Fundamentals of Business Analytics	Wiley	Latest
9	U. Dinesh Kumar	Business Analytics – The Science of Data-Driven	Wiley	Latest

		Decision-Making		
10	Anil Maheshwari	Data Analytics	McGraw Hill	Latest
11	Jesper Thorlund & Gert H.N. Laursen	Business Analytics for Managers: Taking	Wiley	Latest
12	Sahil Raj	Business Analytics	Cengage	Latest

Note: Wherever the standard books are not available for the topic appropriate print and online resources, journals and books published by different authors may be prescribed.

(b) List of Journals /Periodicals /Magazines/Newspapers/Web resources, etc.

1. MIS Quarterly ,University of Minnesota
2. CIO
3. Computer Express
4. Digichip
5. PC World
6. Computer Shopper
7. Dataquest

CO- PO Mapping:

Semester 1	Information Systems and Analytics for Management Decision Making				
	POs				
Course Outcomes	PO1	PO2	PO3	PO4	PO5
CO1	3	2	3	3	2
CO2	2	-	-	3	-
CO3	2	2	1	-	3
CO4	3	3	2	3	3

Legend: **'3'** *for high,* **'2'** *for medium,* **'1'** *for low and* **'-'** *for no correlation of each CO with PO.*

* * * * * * *

GUJARAT TECHNOLOGICAL UNIVERSITY

Program Name: Master of Business Administration

Level: PG

Course / Subject Code: MB01092041

Course / Subject Name: Business Statistics

w. e. f. Academic Year:	2024-25
Semester:	1
Category of the Course:	Core Course (CC)

Prerequisite:	**Any Graduate**
Rationale:	Studying Business Statistics equips students with the analytical skills needed to make data-driven decisions, enhancing their ability to solve complex business problems. It enables a deep understanding of market trends and performance metrics, crucial for strategic planning and competitive advantage. Additionally, it fosters critical thinking and effective communication of statistical findings, essential for leadership roles in today's data-centric business environment.

Course Outcome:

After Completion of the Course, Student will able to:

No	Course Outcomes	RBT Level
01	Understand and apply basic statistical concepts and methods to solve business problems	Understand
02	Apply regression analysis and hypothesis testing in business contexts.	Apply
03	Apply statistical findings effectively to support decision-making.	Apply
04	Analyze probability theory to make informed business decisions under uncertainty.	Analyze
05	Evaluate different types of data using descriptive and inferential statistical techniques.	Evaluate

Revised Bloom's Taxonomy (RBT)

Teaching and Examination Scheme:

Teaching Scheme (in Hours)			Total Credits L+T+ (PR/2)	Assessment Pattern and Marks				Total Marks
				Theory		Tutorial / Practical		
L	**T**	**PR**	**C**	ESE (E)	PA / CA (M)	PA/CA (I)	ESE (V)	
3	1	0	4	70	30	50	0	150

Course Content:

Unit No.	Content	No. of Hours	% of Weightage
1.	**Introduction to Business Statistics:** • Introduction to Statistics, Statistics in Business, Types of data – Nominal, Ordinal, Interval, Ratio. • Types of variables – Dependent, Independent, Discrete and Continuous. • Charts and Graphs. **Descriptive Statistics**: • Measure of central tendency – mean, median, percentile, quartile, mode (for Group and ungrouped data) • Measure of variability – Range, Interquartile range, standard deviation, variance, coefficient of variation, (for Group and ungrouped data) • Measures of Shape, Kurtosis, Skewness, Box-Plot. **Probability:** • Introduction to probability • Theories of probability – Classical, Relative frequency and subjective. • Laws of probability– addition, multiplication. • Inverse Probability. Revision of probability: BAYES'RULE	10	17
2.	**Probability Distribution:** • Discrete distribution –Binomial, Poisson. • Continuous distribution–Uniform, Normal. **Hypothesis testing:** • Types of hypotheses – Research, Statistical, Substantive. • Null and Alternative Hypothesis. • One-tailed &Two-tailed-test. • Types of Error– Type – I & Type - II. • Level of significance. • Steps of hypothesis testing.	10	17

3.	**Parametric Tests:** _**Uni-variatetests:**_ z-test, T-test, _**Bi-variate tests:**_ T-test – Paired and independent, Pearson's Correlation, Simple Linear Regression, One Way ANOVA	15	20
4.	**Non-Parametric Tests:** _Uni-variate tests:_ • Chi-square goodness of fit for uniform distribution _Bi-variate tests:_ • Spearman's Rank Correlation, Mann-Whitney U test, Wilcoxon Sign Paired Rank Test, Chi-square test of independence **Multivariate analysis:** • Overview of Multiple Regression, Factor Analysis, Multidimensional scaling, Discriminant analysis. (**theoretical concepts only**)	10	16
5.	**Practical:** Students should be given various practical data analysis and interpretation assignments/case studies so they may apply the statistical hypothesis testing on assumed/hypothesized data using statistical software.	15	NIL
	Total		**100**

Suggested Specification Table with Marks (Theory):

Distribution of Theory Marks (in %)					
R Level	**U Level**	**A Level**	**N Level**	**E Level**	**C Level**
0	20%	40%	20%	20%	0

Where R: Remember; U: Understanding; A: Application, N: Analyze and E: Evaluate C: Create (as per Revised Bloom's Taxonomy)

References/Suggested Learning Resources:

(a) Books:

No.	Author	Name of the Book	Publisher	Year of Publication/ Edition
1	Ken Black	Business Statistics for Contemporary Decision making	Wiley	Latest Edition
2	Sanjiv Jaggia,Alison Kelly	Business Statistics	McGraw Hill	Latest Edition
3	Richard I.Levinand David S. Rubin	Statistics for Management	Pearson	Latest Edition
4	D. P. Apte	Statistics for Managers	Excel	Latest Edition
5	Gerald Keller&Hitesh Arora	Business Statistics	Cengage	Latest Edition
6	Joseph Francis	Business Statistics	Cengage	Latest Edition
7	T N Srivastavaand Shailaja Rego	Statistics for Management	TMH	Latest Edition
8	K.B.Akhilesh &S. B. Balasubrahmanyam	Mathematics and Statistics for Management	Vikas	Latest Edition
9	Naval Bajpai	Business Statistics	Pearson	Latest Edition
10	D. P. Apte	M.S.Excel: Statistical Tools for Managers	Excel	Latest Edition
11	Qazi Zameerudin,Vijay K.Khara,S.K. Bhamri	Business Mathematics	Vikas	Latest Edition

Note: Wherever the standard books are not available for the topic appropriate print and online resources, journals and books published by different authors may be prescribed.

(b) ListofJournals /Periodicals /Magazines/Newspapers/Webresources,etc.

1. Journal of Indian Business Research
2. International Journal of Statistics and Analysis
3. Sankhya –Indian Journal of Statistics
4. Economic Times
5. Financial Express
6. Business Standard
7. Economic & Political Weekly
8. Vikalpa

CO- PO Mapping:

Semester 1	Business Statistics				
	POs				
Course Outcomes	PO1	PO2	PO3	PO4	PO5
CO1	3	1	2	2	2
CO2	3	1	-	2	-
CO3	3	3	2	2	3
CO4	2	3	-	2	-
CO5	2	2	3	3	3

*Legend: '**3**' for high, '**2**' for medium, '**1**' for low and '**-**' for no correlation of each CO with PO.*

* * * * * * *