BBA PROGRAM CURRICULUM - 2026

(Applicable for the batches admitted from A.Y 2026-27)

Version 1.0

THREE YEAR U.G PROGRAM

BACHELOR OF BUSINESS ADMINISTRATION (BUSINESS ANALYTICS)

Version 1.0–Approved in the BoS meeting on 10-01-2026 & Academic Council meeting on 28-02-2026

ADITYA UNIVERSITY

Aditya Nagar, ADB Road, Surampalem, Andhra Pradesh, India - 533 437

ADITYA UNIVERSITY

VISION & MISSION OF THE UNIVERSITY

VISION

To be a globally recognized University through excellence in Education, Innovation, and Sustainable Growth

MISSION

Deliver collaborative education to prepare students for global challenges through

1. Transformative learning.
2. Vibrant research ecosystem.
3. Sustainable and inclusive community

VISION & MISSION OF THE SCHOOL OF BUSINESS

VISION

To be a world-class business school advancing academic excellence, innovation, and global talent to develop responsible leaders shaping an inclusive and sustainable future

MISSION

M1: Deliver transformative business education that blends academic rigor with real-world relevance and ethical grounding.

M2: Nurture globally competent, entrepreneurial leaders through innovation, research, and interdisciplinary learning.

M3: Champion sustainability, social impact, and inclusive growth through collaborative industry and community engagement

PROGRAM OUTCOMES (POs)

After successful completion of the program,

PO1: **Proficiency in Business Fundamentals:** Graduates will showcase a thorough grasp of essential business concepts, models, and practices spanning multiple functional areas of management.

PO2: **Competence in Solving Business Challenges:** Graduates will effectively diagnose and resolve complex business issues by applying research tools, data interpretation, and strategic decision-making approaches.

PO3: **Logical and Analytical Reasoning:** Graduates will demonstrate the capacity to critically assess business scenarios, apply structured thinking, and arrive at reasoned, evidence-based conclusions.

PO4: **Strong Communication Skills:** Graduates will be able to articulate ideas clearly and confidently through both written and spoken communication, suitable for diverse professional contexts including presentations, reports, and negotiations.

PO5: **Legal Awareness and Ethical Integrity:** Graduates will understand and apply business laws, uphold ethical standards in decision-making, and recognize the importance of corporate governance and compliance.

PO6: **Leadership and Team Engagement:** Graduates will develop key leadership attributes, including the ability to guide, influence, and collaborate with teams while embracing adaptability and shared problem-solving.

PO7: **Entrepreneurial Orientation:** Graduates will embody entrepreneurial thinking, demonstrating originality, proactive innovation, and the ability to pursue and develop new business ventures or opportunities.

PO8: **Commitment to Human Values:** Graduates will integrate core human values such as honesty, empathy, harmony, and scientific curiosity into their personal and professional conduct, promoting ethical and socially conscious leadership.

PO9: **Digital and Technological Literacy:** Graduates will possess the ability to leverage digital tools, business technologies, and analytics platforms to enhance decision-making and organizational efficiency.

PO10: **Teamwork and Global Business Dynamics:** Graduates will work productively within diverse and cross-cultural teams, contributing effectively to collective goals through cooperation, shared responsibility, and mutual respect, while demonstrating awareness of international business trends, cultural nuances, and the economic impact of globalization on business practices.

PO11: **Lifelong Learning Orientation:** Graduates will exhibit a proactive attitude toward continuous learning, professional growth, and staying aligned with evolving industry practices and innovations.

PROGRAM SPECIFIC OUTCOMES (PSOs)

After successful completion of the program,

PSO1: **Foundational Business Acumen:** Graduates will demonstrate conceptual clarity and foundational knowledge in key business areas such as marketing, finance, HR, and operations, preparing them for entry-level corporate roles or higher studies.

PSO2: **Industry Readiness and Employability Skills:** Graduates will exhibit practical business competencies including problem-solving, team collaboration, communication, and adaptability—ensuring their readiness for corporate internships, placements, or entrepreneurial pursuits.

PSO3: **Ethical and Digital Citizenship:** Graduates will uphold ethical business practices and leverage digital tools responsibly, contributing meaningfully to organizations and society in a globally interconnected world.

PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

After successful completion, this program will support

PEO 1: **Strong Foundation in Business Disciplines:** To equip students with comprehensive knowledge across essential business domains such as accounting, finance, marketing, operations, and management, fostering a robust understanding of core principles that drive business success.

PEO 2: **Development of Analytical and Problem-Solving Skills:** To build students' capacity for critical thinking and logical analysis, enabling them to address complex business challenges through informed decision-making and data-driven solutions.

PEO 3: **Mastery in Communication:** To strengthen students' written, verbal, and interpersonal communication skills, preparing them to articulate ideas clearly, craft professional business documents, and deliver impactful presentations.

PEO 4: **Fostering Collaboration and Leadership:** To instill a strong appreciation for teamwork and cooperative problem-solving, while also nurturing leadership abilities that empower students to effectively manage group dynamics and drive collective success.

PEO 5: **Encouraging Innovation and Entrepreneurial Thinking:** To inspire a spirit of innovation and cultivate an entrepreneurial outlook, encouraging students to think creatively, embrace risk, and recognize emerging opportunities in the business landscape.

PEO 6: **Commitment to Lifelong Learning and Growth:** To promote an enduring commitment to personal and professional development by encouraging students to remain agile, pursue advanced learning, and adapt continuously in a fast-changing business environment.

SCHOOL OF BUSINESS
Program Curriculum – 2026
(Applicable for the batches admitted from A. Y. 2026-27)

U.G. Programs Offered

- Bachelor of Business Administration in knowledge partnership with Deloitte
- Bachelor of Business Administration in Business Analytics in knowledge partnership with KPMG
- Bachelor of Business Administration in Global Finance in knowledge partnership with PwC
- Bachelor of Business Administration in FinTech in knowledge partnership with EY
- Bachelor of Business Administration in Health Care Management in knowledge partnership with Red Versity

P.G. Programs Offered

- Master of Business Administration in knowledge partnership with Deloitte
- Master of Business Administration in Business Analytics in knowledge partnership with KPMG
- Master of Business Administration in Global Finance in knowledge partnership with PwC
- Master of Business Administration in FinTech in knowledge partnership with EY
- Master of Business Administration in Health Care Management in knowledge partnership with Red Versity
- Master of Business Administration for Working Professionals

Bachelor of Business Administration (Business Analytics)

Program Curriculum-2026

Credit Division:

S. No	Category of Courses	Credits
		3 Year UG
1	Program Core Courses (PCC)	56
2	Discipline Specific Courses (DSC)	24
3	Ability Enhancement Courses (AEC)	08
4	Multi-Disciplinary Course (MDC)	09
5	Value Added Courses (VAC)	06
6	Skill Enhancement Courses (SEC)	09
7	Summer Internship (SI)	04
8	Capstone Project (CPROJ)	04
9	Mandatory courses (MC)	-
	Total Credits	**120**

FC-Foundation Courses

IC- Intermediate Level Courses

AC- Advanced Courses

Program Core Courses (PCC)

Course Code	Course Title	L	T	P	C	CIE	SEE	Total	Pre-requisite
2605MS01	Principles and Practices of Management	2	0	1	3	50	50	100	-
2605MS02	Micro Economics	2	0	1	3	50	50	100	-
2605MS03	Business Environment and Public Policy	2	0	1	3	50	50	100	-
2605MS04	Human Behavior and Organization	2	0	1	3	50	50	100	PPM
2605MS05	Financial Accounting	2	1	0	3	50	50	100	-
2605MS06	Macro Economics	2	0	1	3	50	50	100	MiE
2605MS07	Legal and Ethical Issues in Business	2	0	1	3	50	50	100	BEPP
2605MS08	Corporate Finance	2	0	1	3	50	50	100	-
2605MS09	Marketing Management	2	0	1	3	50	50	100	-
2605MS10	Human Resource Management	2	0	1	3	50	50	100	HBO
2605MS13	Operations Management	2	0	1	3	50	50	100	-
2605MS14	Cost and Management Accounting	2	1	0	3	50	50	100	-
2605MS15	Entrepreneurship and Start up Eco system	2	0	1	3	50	50	100	-
2605MS16	Business Taxation	2	1	0	3	50	50	100	FA
2605MS19	Management Information System	3	0	1	4	50	50	100	IT&AIS
2605MS20	Project Management	2	0	1	3	50	50	100	-
2605MS21	Business Research Methodology	3	0	1	4	50	50	100	BSL
2605MS22	Strategic Management	2	0	1	3	50	50	100	-
Total					**56**				

Discipline Specific Courses (DSC)

(All the DSC Courses will be dealt by Learning Partners)

Business Analytics (BA)										
S. No	**Course Code**	**Course Title**	**L**	**T**	**P**	**C**	**CIE**	**SEE**	**Total**	**Pre-requisite**
1	2607MS01	Excel for Business Analytics	2	0	1	3	50	50	100	-
2	2607MS02	Introduction to Data Visualization	2	0	1	3	50	50	100	-
3	2607MS03	Business Problem Solving with Analytics	2	0	1	3	50	50	100	BSL
4	2607MS04	Marketing Analytics Essentials	2	0	1	3	50	50	100	IDV
5	2607MS05	Python for Business Analytics	2	0	1	3	50	50	100	-
6	2607MS06	Financial Analytics for Decision Making	2	0	1	3	50	50	100	EBA
7	2607MS07	HR Analytics and Workforce Insights	2	0	1	3	50	50	100	EBA
8	2607MS08	Web and Social Media Analytics	2	0	1	3	50	50	100	-
Total						**24**				

Ability Enhancement Courses (AEC)

Course Code	**Course Title**	**L**	**T**	**P**	**C**	**CIE**	**SEE**	**Total**	**Pre-requisite**
2605MS47	Business Communication	2	0	1	3	50	50	100	-
2605MS48	Fundamental Cognitive Skills for Managers	0	0	1	1	100	-	-	
2605MS49	Advanced Cognitive skills for Managers	0	0	1	1	100	-	-	FCSM
2605MS50	Employability Skills V	0	0	1	1	100	-	-	ES-IV
2605MS51	Student Activity Based Learning	-	-	-	2	100	-	-	-
Total					**08**				

Multi-Disciplinary Course (MDC)

Course Code	Course Title	L	T	P	C	CIE	SEE	Total	Pre-requisite
2605MS52	Business Statistics and Logic	2	1	0	3	50	50	100	-
2605MS53	Media Literacy and Critical Thinking	2	0	1	3	50	50	100	-
2605MS54	Banking Theory and Practice	2	0	1	3	50	50	100	-
Total					**09**				

Value Added Courses (VAC)

Course Code	Course Title	L	T	P	C	CIE	SEE	Total	Pre-requisite
2605MS55	Environmental Science and Sustainability	2	0	1	3	50	50	100	-
2605MS56	Community Service Project	0	0	3	3	100	-	100	-
Total					**06**				

Skill Enhancement Courses (SEC)

Course Code	Course Title	L	T	P	C	CIE	SEE	Total	Pre-requisite
2605MS57	Emerging Technologies and Applications	2	0	1	3	50	50	100	-
2605MS58	Design Thinking and Innovation	2	0	1	3	50	50	100	-
2605MS65	IT & AI Skills	2	0	1	3	50	50	100	-
Total					**09**				

Summer Internship (SI)

Course Code	Course Title	L	T	P	C	CIE	SEE	Total	Pre-requisite
2605MS59	Summer Internship	-	-	4	4	100	-	100	-
Total					**04**				

Capstone Project (CPROJ)

Course Code	Course Title	L	T	P	C	CIE	SEE	Total	Pre-requisite
2605MS60	Capstone Project	-	-	4	4	50	50	100	-
Total					**04**				

Mandatory Courses (MC)

Course Code	Course Title	L	T	P	C	CIE	SEE	Total	Pre-requisite
2605MS61	Employability Skills – I	0	0	1	0	100	-	100	-
2605MS62	Employability Skills – II	0	0	1	0	100	-	100	ES-I
2605MS63	Employability Skills – III	0	0	1	0	100	-	100	ES-II
2605MS64	Employability Skills – IV	0	0	1	0	100	-	100	ES-III
	Total				**0**				

Suggestive Semester Wise Curriculum

SEMESTER-I									
Course Code	Course Title	Level	Course Category	Credits				Total Hours	Pre requisite
				L	T	P	Total		
2605MS01	Principles and Practices of Management	FC	PCC	2	0	1	3	4	-
2605MS02	Micro Economics	FC	PCC	2	0	1	3	4	-
2605MS03	Business Environment and Public Policy	FC	PCC	2	0	1	3	4	-
2605MS52	Business Statistics and Logic	FC	MDC	2	1	0	3	3	-
2607MS01	Excel for Business Analytics	FC	DSC	2	0	1	3	4	-
2605MS47	Business Communication	FC	AEC	2	0	1	3	4	-
2605MS55	Environmental Science and Sustainability	FC	VAC	2	0	1	3	4	-
2605MS61	Employability Skills I	FC	MC	0	0	1	0	2	-
Total							**21**	**29**	

SEMESTER-II									
Course Code	Course Title	Level	Course Category	Credits				Total Hours	Pre requisite
				L	T	P	Total		
2605MS04	Human Behaviour and Organization	IC	PCC	2	0	1	3	4	PPM
2605MS06	Macro Economics	IC	PCC	2	0	1	3	4	MiE
2605MS05	Financial Accounting	FC	PCC	2	1	0	3	3	-
2605MS57	Emerging Technologies and Applications	FC	SEC	2	0	1	3	4	-
2607MS02	Introduction to Data Visualization	IC	DSC	2	0	1	3	4	-
2607MS03	Business Problem Solving with Analytics	IC	DSC	2	0	1	3	4	-
2605MS48	Fundamental Cognitive Skills for Managers	FC	AEC	0	0	1	1	2	-
2605MS62	Employability Skills II	FC	MC	0	0	1	0	2	ES-I
Total							**19**	**27**	

SEMESTER-III									
Course Code	Course Title	Level	Course Category	Credits				Total Hours	Pre requisite
				L	T	P	Total		
2605MS08	Corporate Finance	IC	PCC	2	0	1	3	4	-
2605MS09	Marketing Management	IC	PCC	2	0	1	3	4	-
2605MS10	Human Resource Management	IC	PCC	2	0	1	3	4	HBO
2605MS07	Legal and Ethical Issues in Business	IC	PCC	2	0	1	3	4	-
2607MS04	Marketing Analytics Essentials	IC	DSC	2	0	1	3	4	IDV
2607MS05	Python for Business Analytics	IC	DSC	2	0	1	3	4	-
2605MS49	Advanced Cognitive Skills for Managers	IC	AEC	0	0	1	1	2	-
2605MS56	Community Service Project	IC	VAC	0	0	3	3	-	-
2605MS63	Employability Skills III	IC	MC	0	0	1	0	2	ES-II
Total							**22**	**28**	

SEMESTER-IV									
Course Code	Course Title	Level	Course Category	Credits				Total Hours	Pre requisite
				L	T	P	Total		
2605MS14	Cost & Management Accounting	IC	PCC	2	1	0	3	3	-
2605MS13	Operations Management	IC	PCC	2	0	1	3	4	-
2605MS16	Business Taxation	IC	PCC	2	1	0	3	3	-
2605MS15	Entrepreneurship and Start up Eco system	IC	PCC	2	0	1	3	4	-
2607MS06	Financial Analytics for Decision Making	IC	DSC	3	0	1	3	4	EBA
2607MS07	HR Analytics and Workforce Insights	IC	DSC	3	0	1	3	4	EBA
2605MS64	Employability Skills IV	IC	MC	0	0	1	0	2	ES-III
Total							**18**	**25**	

SEMESTER-V									
Course Code	Course Title	Level	Course Category	Credits				Total Hours	Pre requisite
				L	T	P	Total		
2605MS20	Project Management	AC	PCC	2	0	1	3	4	-
2607MS08	Web and Social Media Analytics	AC	DSC	2	0	1	3	4	-
2605MS54	Banking Theory and Practice	AC	MDC	2	1	0	3	3	-
2605MS58	Design Thinking and Innovation	AC	SEC	2	0	1	3	4	-
2605MS65	IT & AI Skills	AC	SEC	2	0	1	3	4	-
2605MS59	Summer Internship	AC	SI	-	-	4	4	-	-
2605MS50	Employability Skills V	AC	AEC	0	0	1	1	2	ES-IV
Total							**20**	**21**	

SEMESTER-VI									
Course Code	Course Title	Level	Course Category	Credits				Total Hours	Pre requisite
				L	T	P	Total		
2605MS21	Business Research Methods	AC	PCC	3	0	1	4	5	-
2605MS22	Strategic Management	AC	PCC	2	0	1	3	4	-
2605MS19	Management Information System	AC	PCC	3	0	1	4	5	IT&AIS
2605MS53	Media Literacy and Critical Thinking	IC	MDC	2	0	1	3	4	-
2605MS60	Capstone Project	AC	CPROJ	-	-	4	4	-	-
2605MS51	Student Activity Based Learning	AC	AEC	-	-	-	2	-	-
Total							**20**	**17**	

PROGRAM CORE COURSES
PRINCIPLES AND PRACTICES OF MANAGEMENT

	L	T	P	C
Course Code: 2605MS01	**2**	**0**	**1**	**3**

Course Outcomes:

At the end of the Course, Student will be able to:

- **CO1:** Explain theoretical aspects, processes and principles, the scope of Management and its application to modern management practice
- **CO2:** Identify the Decision-making process in Business organizations
- **CO3:** Differentiate the functions of Line and Staff management
- **CO4:** Understand and apply different leadership styles
- **CO5:** Apply different controlling techniques in different situations

Mapping of Course Outcomes with Program Outcomes:

CO / PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	3	2	2	1	1	1	-	2	1	1	1
CO2	2	3	3	1	1	2	1	1	2	1	1
CO3	2	2	2	1	1	3	-	1	1	2	1
CO4	1	2	2	2	1	3	1	2	1	2	2
CO5	2	3	3	1	1	2	-	1	2	1	2

Mapping of Course Outcomes with Program Specific Outcomes:

CO / PSO	PSO1	PSO2	PSO3
CO1	2	1	1
CO2	2	2	2
CO3	2	2	1
CO4	1	2	1
CO5	2	2	2

UNIT – I

Management: Definition, nature, significance and principles of management, Evolution of management thought, management and administration, Roles of the Manager, levels of management, Functions of Management.

UNIT – II

Planning: Concept, Objectives, Types, Steps and Techniques, Decision Making: Steps in Decision Making and Types; Management by Objectives (MBO).

UNIT – III

Organizing & Staffing: Concept, Structures, Nature, Types and Principles of Organizing; Centralization and Decentralization, Staffing: Nature, Significance and Process.

UNIT – IV

Leading and Directing: Introduction, Characteristics and Functions of a Leader; Leadership and Management, Styles of Leaders. Directing: Meaning and nature and importance of Directing, Communication in Directing.

UNIT – V

Controlling: Introduction, Concept of Controlling, Purpose of Controlling; Types of Control; Steps in Controlling; Techniques in Controlling, Highlights on Digital & decentralised techniques (cloud, OBC& self-control)

Textbooks:

1. P.C. Tripathi & P.N. Reddy, Principles of Management (2023), McGraw Hill, 6th Edition, ISBN: 9789352605354
2. Harold Koontz & Heinz Weihrich, Essentials of Management (2015), McGraw Hill, 10th Edition, ISBN: 9789339222864

Reference Books:

1. Gerald Cole, Management: Theory and Practice (2020), Cengage, ISBN: 9781473769724
2. OpenStax, Principles of Management (2019) XanEdu Publishing Inc, Ed., ISBN: 9781593998769

Web Links:

1. https://onlinecourses.nptel.ac.in/noc23_mg33/preview
2. https://archive.nptel.ac.in/courses/110/107/110107150/

Relevant cases have to be discussed in each unit and in examination case study is compulsory from any unit.

MICRO ECONOMICS

	L	T	P	C
Course Code: 2605MS02	**2**	**0**	**1**	**3**

Course Outcomes:

At the end of the Course, Student will be able to:

- **CO1:** Explain the fundamentals of Micro Economics
- **CO2:** Apply the knowledge of the mechanics of supply and demand to explain working of markets.
- **CO3:** Explain relationships between production and costs.
- **CO4:** Analyze the key characteristics and consequences of different forms of markets.
- **CO5:** Examine the choices made by a rational consumer

Mapping of Course Outcomes with Program Outcomes:

CO / PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	3	2	1	2	-	-	-	-	2	-	1
CO2	3	3	2	2	-	-	1	-	3	-	1
CO3	3	3	2	2	-	-	1	-	3	-	1
CO4	3	3	2	2	1	1	1	-	3	1	1
CO5	3	3	2	2	1	-	1	-	3	1	1

Mapping of Course Outcomes with Program Specific Outcomes:

CO / PSO	PSO1	PSO2	PSO3
CO1	2	2	1
CO2	3	2	2
CO3	3	2	2
CO4	3	3	2
CO5	3	3	2

UNIT – I

Introduction to Economics: Definition, Nature and Scope of Economics. Micro and Macro Economics, Role of Economics in Decision Making.

UNIT – II

Demand Analysis: Meaning of Demand, Types of Demand, Law of demand, Determinants of Demand, Demand Function, Elasticity of demand- price elasticity of demand. Income elasticity of demand, Cross Elasticity of demand,

UNIT – III

Consumer's Behavior: Law of diminishing Marginal Utility Analysis, Indifference Curve Analysis and its Properties; Marginal rate of Substitution, Consumer Equilibrium.

UNIT – IV

Production and Cost Analysis: Production function, Factors of Production, Types of Production Function, Law of Returns, Law of variable proportions, Isoquants and Iso cost Curves, Cost Concepts, Cost Output Relation (Short Run & Long Run costs).

UNIT – V

Market Structures: Perfect competition, monopoly, monopolistic competition, oligopoly basic features, equilibrium price, short run equilibrium of firm/industry, long run equilibrium of firm/industry.

Textbooks:

1. Dr. D.M. Mithani, Microeconomics Himalaya Publishing House, ISBN: 978-93-6557-962- 8
2. Pankaj Tandon, Microeconomic Theory Routledge India, ISBN: 978-1032789668.
3. D.N Dwivedi, Microeconomics: Theory and Applications (Latest Edition). New Delhi: Vikas Publishing House Pvt. Ltd.

Reference Books:

1. Sreejata Banerjee & Robert S. Pindyck, Microeconomics Pearson India,9th Edition, ISBN: 978-9356060128.
2. David Besanko, Ronald Braeutigam, Tamali Chakraborty, Microeconomics: Indian Adaptation, Wiley India, 6th Edition, ISBN: 978-9354249136.
3. 3. H.L Ahuja, Principles of Microeconomics (Latest Edition). New Delhi: S. Chand & Company Pvt. Ltd.
4. Robert S. Pindyck, And Daniel L Rubinfeld, Microeconomics (Latest International / Indian Edition). New Delhi: Pearson Education.

Web Links:

1. https://archive.nptel.ac.in/courses/110/104/110104093/
2. https://archive.nptel.ac.in/courses/109/104/109104125/

Relevant cases have to be discussed in each unit and in examination case study is compulsory from any unit.

BUSINESS ENVIRONMENT AND PUBLIC POLICY

	L	T	P	C
Course Code: 2605MS03	**2**	**0**	**1**	**3**

Course Outcomes:

At the end of the Course, Student will be able to:

CO1: Explain the nature, dimensions, and challenges of the business environment at both micro and macro levels.

CO2: Explain the global business frameworks and their impact on the Indian economy and national development.

CO3: Demonstrate an understanding of key public policies and analyze their impact on the Indian economy and reforms.

CO4: Analyze the major economic challenges in India and evaluate remedies and opportunities within the business environment.

CO5: Analyze emerging business trends and assess their impact on the digital economy, outsourcing, and technological growth.

Mapping of Course Outcomes with Program Outcomes:

COs / POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	3	2	2	2	2	2	2	2	2	2	2
CO2	3	2	2	2	2	2	2	2	2	2	2
CO3	3	3	2	2	3	2	2	2	2	2	2
CO4	3	3	2	2	2	2	2	2	2	2	2
CO5	3	3	2	2	3	2	2	2	2	2	2

Mapping of Course Outcomes with Program Specific Outcomes:

CO / PSO	PSO1	PSO2	PSO3
CO1	3	2	2
CO2	3	3	2
CO3	3	3	3
CO4	3	3	3
CO5	3	3	3

UNIT – I

Theoretical Framework of Business Environment: Concept, Significance and Nature of Business Environment. Micro and Macro Dimensions of Business Environment, Changing Dimensions of Business Environment. Problems and Challenges of Indian Business Environment.

UNIT – II

Global Framework: EPRG Framework, Liberalization, Privatization & Globalization concept & its impact on Indian Economy. Significance of FDI & FII, IMF & WTO, Regional Economic Integrations in the development of the Nations.

UNIT – III

Public Policies: Background, Meaning and Importance of Public Policy. Significance of Industrial Policy, Fiscal Policy, Monetary Policy, Foreign Trade Policy, FERA & FEMA. Structural Adjustment Programs and Banking Sector Reforms in India.

UNIT – IV

Problems and Challenges of Growth of Economy: Unemployment, Poverty, Regional Imbalance. Social Injustice, Inflation, Parallel economy, Lack of technical knowledge and information. Remedies to solve these problems, Challenges & Opportunities of Indian Business Environment.

UNIT – V

Emerging Trends in Business: Concepts, Advantages and Limitations-Franchising, Aggregators, Business Process Outsourcing (BPO) & Knowledge Process Outsourcing (KPO); E-Commerce, Digital Economy. Technological Growth and MNC's.

Textbooks:

1. Dr. V. Basil Hans, Business Environment, IIP Publications, ISBN: 978-93-5747-517-4
2. Faisal Ahmed & M. Absar Alam, Business Environment: Indian and Global Perspective, PHI Learning, 3rd Edition, ISBN: 978-9354437731

Reference Books:

1. Risha Khandelwa, Business Environment (2024), Toronto Academic Press, ISBN: 978-1774697375
2. Vishwajeet Prasad, Business Environment, GenNext Publication, ISBN: 978-9356633667.

Web Links:

1. https://onlinecourses.swayam2.ac.in/imb22_mg02/preview
2. https://ugcmoocs.inflibnet.ac.in/index.php/courses/view_pg/389

Relevant cases have to be discussed in each unit and in examination case study is compulsory from any unit.

HUMAN BEHAVIOR AND ORGANIZATION

	L	T	P	C
Course Code: 2605MS04	**2**	**0**	**1**	**3**

Course Outcomes:

At the end of the Course, Student will be able to:

CO1: Outline the overall perspective on human behavior in the work place.
CO2: Demonstrate the importance of motivation in at work place.
CO3: Examine the nature of group conflict and its resolution
CO4: Identify the impact of culture on individual performance
CO5: Analyze the impact of change, assess and manage work stress.

Mapping of Course Outcomes with Program Outcomes:

COs / POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	3	2	2	2	2	3	1	3	1	3	2
CO2	3	2	2	2	2	3	1	2	1	3	2
CO3	3	3	3	2	2	3	2	3	1	3	2
CO4	2	2	3	3	3	2	1	3	1	3	2
CO5	2	3	3	3	2	3	1	3	2	3	3

Mapping of Course Outcomes with Program Specific Outcomes:

CO / PSO	PSO1	PSO2	PSO3
CO1	1	1	2
CO2	2	1	2
CO3	2	1	2
CO4	2	1	2
CO5	2	1	2

UNIT – I

Introduction to Human Behavior and Organization: Meaning and importance of Organizational Behavior (OB); Evolution and factors influencing OB; OB models and their relevance in modern organizations.

UNIT – II

Individual Behavior: Personality –Determinants, Types of Personality; Attitude – Components and Types of attitudes, Learning – Process, theories Perception – Process and influencing factors; Motivation – Meaning, importance, Early theories(Maslow, McGregor, Herzberg) and contemporary theories (Self-Determination, Goal-Setting, Self-Efficacy).

UNIT – III

Group and Team Behavior: Concepts and differences between groups and teams; stages of group development; factors affecting Group Behavior, Types of teams and team

development; in groups, strategies for managing conflicts including in virtual/e-teams.

UNIT – IV

Leadership and Power: Leadership – Concepts, leadership versus management, major Leadership theories; Contemporary leadership styles, Concept and sources of power bases of power and their influence on individual and group behavior in organizations.

UNIT – V

Organizational Culture and Stress Management: Organizational culture – Meaning, functions, and creating ethical cultures; Role of employees in shaping culture; Cross-cultural management in globalized workplaces; Stress – Causes, types, and stress management strategies.

Textbooks:

1. L.M. Prasad, Organizational Behaviour, Sultan Chand & Sons, ISBN: 9789351611462.
2. Dr.Kavita Singh, Organizational Behaviour: Text and Cases, Pearson India, ISBN: 9781282652729

Reference Books:

1. Nahar Amandeep, Rao PCK, Nigah Rajesh Kumar, Organisational Behaviour(2021), Sultan Chand & SonsISBN: 93-5161-199-82.
2. Jerald Greenberg, Behavior in Organizations, Pearson Education India, 10 Edition, ISBN- 10: 9332556997, ISBN-13: 978-9332556997

Web Links:

1. https://archive.nptel.ac.in/courses/110/106/110106145/
2. https://onlinecourses.nptel.ac.in/noc20_mg51/preview

Relevant cases have to be discussed in each unit and in examination case study is compulsory from any unit

FINANCIAL ACCOUNTING

	L	T	P	C
Course Code: 2605MS05	**2**	**1**	**0**	**3**

Course Outcomes:

At the end of the Course, Student will be able to:

- **CO1:** Identify and explain key concepts and principles of financial accounting.
- **CO2:** Assess accounting concepts, principles, standards, and policies.
- **CO3:** Apply the accounting process to record transactions and compute depreciation.
- **CO4:** Simplify Trading, Profit & Loss Accounts, and Balance Sheets for sole proprietary businesses.
- **CO5:** Analyze final accounts of companies in line with the Companies Act, 2013

Mapping of Course Outcomes with Program Outcomes:

CO / PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	3	2	2	1	2	-	-	1	1	-	1
CO2	3	3	2	1	3	-	-	1	2	-	1
CO3	3	3	2	1	2	-	-	1	2	-	1
CO4	3	2	2	1	2	-	-	1	1	1	1
CO5	3	3	2	1	3	-	-	2	2	1	2

Mapping of Course Outcomes with Program Specific Outcomes:

CO / PSO	PSO1	PSO2	PSO3
CO1	3	2	2
CO2	3	3	2
CO3	3	3	2
CO4	3	2	2
CO5	3	3	3

UNIT – I

Introduction to Financial Accounting: Definition, Scope, objectives of Financial Accounting, Accounting v/s Book Keeping, Double entry system of accounting and its advantages; types of accounts, rules of accounting.

UNIT – II

Conceptual Frame work: Accounting Concepts, Principles and Conventions, Brief review of Accounting Standards in India, GAAP (Generally Accepted Accounting Principles) and IFRS (International Financial Reporting Standards)

UNIT – III

Recording of Transactions: Voucher system; Accounting Process, Journal, Subsidiary Books, Ledger, Cash Book, Bank Reconciliation Statement, Trial Balance. Rectification of Errors; Depreciation: Need & importance and methods of charging depreciation,

UNIT – IV

Preparation of Final Accounts: Preparation of Trading and Profit & Loss Account and Balance Sheet of sole proprietary business (with adjustments).

UNIT – V

Company Final Accounts: Understanding of final accounts of a Company. Joint Stock Company- Definition, Characteristics, types of companies, Shares, Share Capital, rights shares, bonus shares.

Textbooks:

1. T.S. Grewal, Double Entry Book Keeping: Financial Accounting (2023), Sultan Chand & Sons, ISBN: 9788196162658
2. Ambrish Gupta, Financial Accounting for Management (2021), Pearson, 5th Edition, ISBN: 9788131797556

Reference Books:

1. Rajesh Agarwal & R. Srinivasan, Accounting Made Easy (2020) McGraw Hill, 2nd Edition, ISBN: 9780070700987
2. R. Narayanaswamy, Financial Accounting: A Managerial Perspective (2017) PHI, 6th Edition, ISBN: 9788120353435

Web Links:

1. https://onlinecourses.nptel.ac.in/noc23_mg65/preview
2. https://archive.nptel.ac.in/courses/110/101/110101131/

Relevant cases have to be discussed in each unit and in examination case study is compulsory from any unit.

MACRO ECONOMICS

	L	T	P	C
Course Code: 2605MS06	**2**	**0**	**1**	**3**

Course Outcomes:

At the end of the Course, Student will be able to:

- **CO1:** Explain the concepts of National Income
- **CO2:** Identify the Basics of Fiscal policy and its importance
- **CO3:** Compare the relationships between monetary policy and flow of cash in economy.
- **CO4:** Analyze the key characteristics and consequences of Business cycles and Balance of Payments.
- **CO5:** Examine the concepts of inflation and unemployment

Mapping of Course Outcomes with Program Outcomes:

COs / POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	3	2	1	2	2	1	1	2	1	1	1
CO2	3	3	2	2	2	2	1	2	1	1	1
CO3	3	3	2	2	2	2	2	2	1	1	1
CO4	3	3	2	2	2	2	2	2	1	1	1
CO5	3	3	2	2	2	2	1	2	1	1	1

Mapping of Course Outcomes with Program Specific Outcomes:

CO / PSO	PSO1	PSO2	PSO3
CO1	2	2	2
CO2	2	3	2
CO3	2	3	2
CO4	2	3	2
CO5	2	3	2

UNIT – I

Introduction to Macro Economics and National Income: Introduction Meaning and Scope of Macro Economics, introduction to Classical and Keynesian theory, Definition, Concepts of National income, Measurement of National Income.

UNIT – II

Monetary Policy: meaning, objectives and components; credit creation; money multiplier; tools of monetary policy- open market operation.

UNIT – III

Fiscal Policy: meaning, objectives and components; revenue receipts, capital receipts, revenue expenditure, capital expenditure, government deficit, revenue deficit, fiscal deficit, primary deficit.

UNIT – IV

Business Cycles and Balance of Payments: Business cycle; phases of business cycle, measures to control Business cycles. Balance of trade, Trade Deficit, Balance of Payments**.**

UNIT – V

Inflation and Unemployment: Concept of inflation; determinants of inflation; types of inflation; relationship between inflation and unemployment.

Textbooks:

1. Dr. Amritkant Mishra, Modern Macroeconomics, Bridging Concepts to Realities Sultan Chand & Sons, ISBN-13: 978-81-8054-890-1
2. C B Sachdeva, Introductory Macroeconomics, Geeta Publishing House, ISBN-13: 978- 9395904049

Reference Books:

1. Jones, CW. W. Norton, Macroeconomics. 4th edition. ISBN-10, 0393603768. ISBN-13, 978-0393603767
2. S.N.V. Siva Kumar, Asha Prasuna, Macroeconomics and Policy for Managers: An Indian Perspective, Cengage India,2nd Edition, ISBN-13: 978-9355739469

Web Links:

1. https://onlinecourses.swayam2.ac.in/cec22_hs08/preview
2. https://archive.nptel.ac.in/courses/130/104/130104114/

Relevant cases have to be discussed in each unit and in examination case study is compulsory from any unit.

LEGAL AND ETHICAL ISSUES IN BUSINESS

	L	T	P	C
Course Code: 2605MS07	**2**	**0**	**1**	**3**

Course Outcomes:

At the end of the Course, Student will be able to:

- **CO1:** Identify fundamental legal principal behind contractual Agreements
- **CO2:** Explain the salient features of Sale of Goods Act and Negotiable Instruments Act
- **CO3:** Assume the consequences of applicability of Companies Act and Partnership Act in business situations.
- **CO4:** Build critical thinking through the use of Consumer Rights.
- **CO5:** Develop awareness in respect of rules and regulations for Environment Protection.

Mapping of Course Outcomes with Program Outcomes:

COs / POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	3	2	3	2	3	2	2	2	2	2	2
CO2	3	3	2	2	3	2	2	2	2	2	2
CO3	3	3	3	2	3	2	2	2	2	2	2
CO4	3	3	2	2	3	2	2	2	2	2	2
CO5	3	2	2	2	3	2	2	2	2	2	2

Mapping of Course Outcomes with Program Specific Outcomes:

CO / PSO	PSO1	PSO2	PSO3
CO1	3	2	3
CO2	3	3	2
CO3	3	3	3
CO4	3	3	3
CO5	3	2	3

UNIT – I

The Indian Contract Act 1872: Essentials, types, offer & acceptance, consideration, competency, free consent, void agreements, performance, discharge, breach, quasi contract. Special Contracts: Indemnity, guarantee, bailment, pledge, agency.

UNIT – II

The Sale of Goods Act 1930: Sale vs. agreement to sell, conditions & warranties, transfer of property, unpaid seller's rights.

The Negotiable Instruments Act 1881: Types, parties, dishonor, discharge, promissory note, bill of exchange, cheque.

UNIT – III

The Companies Act 2013: Types, incorporation, MOA & AOA, prospectus, shares,

role of directors, company meetings.**The Limited Liability Partnership Act 2008:** Nature, formation, partners' relations, liability limitations.

UNIT – IV

The Consumer Protection Act 1986: Consumer rights, disputes, redressal mechanisms. Right to Information Act 2005: Features, definitions, obligations of authorities, request process, PIO functions.

UNIT – V

The Information Technology Act 2000: Digital Signatures, e-governance, cyber laws. The Environment Protection Act 1986: Water & air pollution, Green Tribunal, sustainability reporting.

Textbooks:

1. Kenneth W. Clarkson et al., Business Law: Text and Cases (2017), Cengage Learning, 14th Edition, ISBN: 9781305967250
2. P.C. Tulsian, Business Law (2021), McGraw Hill, 3rd Edition, ISBN: 9789354600318

Reference Books:

1. Ravinder Kumar, Legal Aspects of Business (2021) Cengage India, 4th Edition, ISBN: 9789387511767
2. N.D. Kapoor, Elements of Mercantile Law (2022), Sultan Chand & Sons, 38th Edition, ISBN: 9789351618323

Web Links:

1. https://onlinecourses.swayam2.ac.in/cec21_mg02/preview
2. https://www.classcentral.com/course/swayam-fundamentals-of-legal-aspects-of-business-22987

Relevant cases have to be discussed in each unit and in examination case study is compulsory from any unit.

CORPORATE FINANCE

	L	T	P	C
Course Code: 2605MS08	**2**	**0**	**1**	**3**

Course Outcomes:

At the end of the Course, Student will be able to:

CO1: Explain the basic concepts and objectives of corporate finance.

CO2: Calculate simple time value of money problems for financial decision-making.

CO3: Apply basic capital budgeting techniques to evaluate small investment proposals.

CO4: Identify sources of finance and compute simple cost of capital.

CO5: Explain dividend policy and working capital management at an introductory level.

Mapping of Course Outcomes with Program Outcomes:

CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	3	2	2	2	2	3	2	2	3	2	2
CO2	3	3	3	2	2	3	2	2	3	2	2
CO3	3	3	3	2	3	3	3	2	3	3	2
CO4	3	3	3	3	2	3	3	2	3	3	2
CO5	3	3	3	3	3	3	2	2	3	2	2

Mapping of Course Outcomes with Program Specific Outcomes:

CO/PSO	PSO1	PSO2	PSO3
CO1	3	2	2
CO2	3	3	2
CO3	3	3	3
CO4	3	3	3
CO5	3	3	3

UNIT – I

Introduction to Corporate Finance: Meaning and Scope of Corporate Finance, Objectives of Finance – Profit Maximization and Wealth Maximization, Role of Finance Manager. Overview of Financial Decisions – Investment, Financing and Dividend Decisions. Introduction to Time Value of Money – Future Value and Present Value (Simple Problems).

UNIT – II

Investment Decisions: Meaning of Investment Decision, Capital Budgeting Process (Identification, Evaluation and Selection of Projects). Estimation of Basic Cash Flows. Capital Budgeting Techniques: Payback Period, Accounting Rate of Return, Net Present Value (Basic Level). Simple Numerical Problems.

UNIT – III

Sources of Finance and Cost of Capital: Long-term and Short-term Sources of Finance. Introduction to Capital Structure. Concept and Importance of Cost of Capital. Calculation of Cost of Debt, Cost of Equity (Simple Dividend Model), and Weighted Average Cost of Capital (Basic Problems).

UNIT – IV

Dividend Decisions: Meaning and Types of Dividend. Factors Affecting Dividend Policy. Forms of Dividend – Cash Dividend, Bonus Shares and Rights Issue. Basic Concepts of Walter's and Gordon's Models (Conceptual Overview).

UNIT – V

Working Capital Management: Meaning and Importance of Working Capital. Components of Working Capital. Gross and Net Working Capital. Operating Cycle Concept (Basic Calculation). Financing of Working Capital – Bank Finance and Trade Credit.

Textbooks:

1. Khan, M. Y., & Jain, P. K. (2019). *Financial Management* (8th ed.). McGraw Hill Education. ISBN: 9789353161439.
2. Chandra, P. (2022). *Financial Management: Theory and Practice* (10th ed.). McGraw Hill Education. ISBN: 9789354602450.

Reference Books:

1. Pandey, I. M. (2021). *Financial Management* (12th ed.). Vikas Publishing House. ISBN: 9789354534065.
2. Maheshwari, S. N., & Maheshwari, S. K. (2020). *Financial Management: Principles and Practice* (5th ed.). Sultan Chand & Sons. ISBN: 9789351611721.

Web Links:

1. https://onlinecourses.nptel.ac.in/noc20_mg31/preview
2. https://archive.nptel.ac.in/courses/110/107/110107144/

Relevant cases have to be discussed in each unit and in examination case study is compulsory from any unit.

MARKETING MANAGEMENT

	L	T	P	C
Course Code: 2605MS09	**2**	**0**	**1**	**3**

Course Outcomes:

At the end of the Course, Student will be able to:

CO1: Explain marketing and analyze the core marketing concepts

CO2: Assess and select market segments based on effective segmentation criteria

CO3: Classify products, analyze the product life cycle, and propose strategies for new product development

CO4: Develop pricing strategies, explain the relevance of the value chain to marketing, and assess customer lifetime value

CO5: Design integrated marketing channels, manage retailing and logistics, and evaluate the effectiveness of various promotional strategies

Mapping of Course Outcomes with Program Outcomes:

COs / POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	3	2	1	2	2	1	1	2	2	1	1
CO2	3	3	2	2	2	1	1	2	2	2	1
CO3	3	2	2	2	2	1	2	2	2	2	2
CO4	3	3	2	2	2	1	2	2	2	2	1
CO5	3	2	2	2	2	2	2	3	3	2	2

Mapping of Course Outcomes with Program Specific Outcomes:

CO / PSO	PSO1	PSO2	PSO3
CO1	3	1	1
CO2	3	1	1
CO3	3	1	1
CO4	3	1	1
CO5	3	1	1

UNIT – I

Introduction to Marketing and Environment: Nature, scope, and importance of marketing; Evolution of marketing concepts (Production, Product, Selling, Marketing, Holistic); Types of marketing (B2C, B2G, B2B, C2C); Marketing environment (Demographic, Economic, Political, Legal, Socio-cultural, Technological); Marketing MIX, Market and competition analysis; Creating customer value.

UNIT – II

Consumer Behavior and Market Segmentation: Segmentation, Targeting, and Positioning; Bases for segmenting consumer markets; Consumer behavior (Stimulus Response Model, Cultural, Social, Personal, Psychological factors); Consumer buying decision process; Business buyer behavior; Traditional vs. Experiential marketing.

UNIT – III

Product and Pricing Decisions: Product Life Cycle (PLC) and marketing strategies; Product classification, line, and mix decisions; Branding, packaging, labeling; BCG Matrix; Brand management; Innovation and new product development; Pricing determinants and methods.

UNIT – IV

Promotion and Distribution Decisions: Promotion mix and factors; Promotional tools (Advertising, Sales Promotion, PR, Publicity, Personal Selling); Marketing channels and intermediaries (Wholesalers, Retailers); Introduction to retail management.

UNIT – V

Services and Contemporary Marketing: Services marketing (7Ps); Contemporary marketing issues (E- commerce, Digital Marketing, Online payments); Ethical and social responsibility; Rural marketing, social marketing, green marketing.

Textbooks:

1. Kotler, P., Keller, K. L., Chernev. A., Sheth. J.N., Shainesh G., Marketing Management (2022), Pearson Education, 16th Edition, ISBN-10. 9356062668; ISBN-13. 978-9356062665
2. Dr. K. Karunakaran, Marketing Management, Himalaya Publishing House, ISBN: 978-93-5693- 548-8

Reference Books:

1. Hartley, S. W., Kerin, R. A., Marketing (2021), United States: McGraw-Hill Education, 15th Edition, and ISBN-10. 1260260364; ISBN-13. 978-1260260366
2. Prof. Sunil Tiwari and Dr. Richa Tiwari, Strategic International Marketing, Society Publishing, ISBN: 9781779563798

Web Links:

1. https://onlinecourses.nptel.ac.in/noc22_mg57/preview
2. https://archive.nptel.ac.in/courses/110/104/110104068/

Relevant cases have to be discussed in each unit and in examination case is compulsory from any unit.

HUMAN RESOURCE MANAGEMENT

Course Code: 2605MS10	L	T	P	C
	2	0	1	3

Course Outcomes:

At the end of the Course, Student will be able to:

CO1: Explain HRM evolution, functions, and trends

CO2: Analyze HR planning, job analysis, recruitment, and selection.

CO3: Assess training needs, design training programs, and evaluate executive development

CO4: Appraise employee performance and evaluate wage administration.

CO5: Understand industrial relations, dispute causes, and trade union effectiveness.

Mapping of Course Outcomes with Program Outcomes:

CO / PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	3	2	3	3	2	3	3	3	3	2	3
CO2	3	3	3	2	3	3	3	3	2	3	3
CO3	3	3	3	3	3	2	3	3	2	3	3
CO4	3	3	3	3	3	3	2	3	3	3	3
CO5	3	2	3	3	3	3	3	3	3	3	3

Mapping of Course Outcomes with Program Specific Outcomes:

CO / PSO	PSO1	PSO2	PSO3
CO1	3	2	3
CO2	3	3	3
CO3	3	3	3
CO4	3	3	3
CO5	3	2	3

UNIT – I

Introduction to Human Resource Management (HRM): Overview of HRM, Functions of HRM, HRM as a business partner, policies, and HRM in a competitive global environment. Introduction to functional and strategic HRM.

UNIT – II

HR Planning and Talent Management: Employee life cycle, HR planning, recruitment, selection, training and development, competency management, career management, and managing gig/virtual employees.

UNIT – III

Employee Engagement, Performance, and Compensation: Employee engagement, performance management, compensation strategies, benefits, compensation for special

groups, industrial relations, workplace laws, and employment relations.

UNIT – IV

HR Technology and Analytics: Human Resource Information Systems (HRIS), HR analytics, innovations in HRM, HRM in SMEs and the service sector, HR leadership, and organizational transformation.

UNIT – V

Diversity, Inclusion, and HR Challenges: Diversity, equity, and inclusion, workplace wellness, sustainability goals, green HRM, and the challenges faced in modern HRM.

Textbooks:

1. Gary Dessler, Biju Varkkey, Human Resource Management (2020), Pearson Education, 9789352862658; ISBN-13. 978-9352862658
2. R.C. Sharma & Nipun Sharma, Human Resource Management: Concepts, Theories and Contemporary Practices, Routledge India, ISBN: 978-1032623160

Reference Books:

1. Amitabha Sengupta, Human Resource Management: Concepts, Practices, and Paradigms, Cengage India,2nd Edition, ISBN: 978-9355739438
2. Aswathappa K, Human Resource Management: Text and Cases (2021), Tata McGraw-Hill, ISBN- 10. 9354600212; ISBN-13. 978-9354600210

Web Links:

1. https://archive.nptel.ac.in/courses/110/105/110105069/
2. https://onlinecourses.nptel.ac.in/noc21_mg21/preview

Relevant cases have to be discussed in each unit and in examination case is compulsory from any unit

OPERATIONS MANAGEMENT

Course Code: 2605MS13	L	T	P	C
	2	0	1	3

Course Outcomes:

At the end of the Course, Student will be able to:

CO1: Explain the Relationship of Operations management with other functional areas and different types of Production Systems.

CO2: Apply stages of the product design process, analyze value analysis techniques, and critique facility location and layout decisions

CO3: Evaluate methods of forecasting, design operation planning strategies, and assess capacity planning techniques including MRP and scheduling

CO4: Analyze factors affecting productivity, apply job design principles, and evaluate process flow charts and methods study

CO5: Examine the techniques of Statistical Quality Control and Total - Quality Management.

Mapping of Course Outcomes with Program Outcomes:

COs / POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	3	3	3	3	3	3	2	3	3	3	3
CO2	3	3	3	3	3	3	2	3	3	3	3
CO3	3	3	3	3	3	3	2	3	3	3	3
CO4	3	3	3	3	3	3	2	3	3	3	3
CO5	3	3	3	3	3	3	2	3	3	3	3

Mapping of Course Outcomes with Program Specific Outcomes:

CO / PSO	PSO1	PSO2	PSO3
CO1	3	3	3
CO2	3	3	3
CO3	3	3	3
CO4	3	3	3
CO5	3	3	3

UNIT – I

Introduction to Operation Management: Nature, Scope, Recent trends in Operation Management, Manufacturing & Theory of Constraint, Types of Production System, Just in Time (JIT) & lean system.

UNIT – II

Product Design & Process Selection: Stages in Product Design process, Value Analysis,

Facility
Location & Layout: Types, Characteristics, Advantages and Disadvantages.

UNIT – III
Forecasting & Capacity Planning: Methods of Forecasting, Production strategies, Capacity Requirement Planning, MRP, Scheduling, Supply Chain Management, Purchase Management, Inventory Management.

UNIT – IV
Productivity: Factors Affecting Productivity – Job Design – Process Flow Charts – Methods Study – Work Measurement – Engineering and Behavioral Approaches.

UNIT – V
Quality Management: Cost of Quality, Quality Circles, ISO (9000&14000 Series), Statistical Quality Control, Control Charts -Acceptance Sampling Operating Characteristic Curve (AQL, LTPD, Alpha & Beta risk), Total Quality Management (TQM).

Textbooks:
1. Lee J. Krajewski, Manoj K. Malhotra, Operations Management: Processes and Supply (2021) Chains Pearson, 13th Edition, ISBN: 9780136860938
2. William J. Stevenson, Operations Management (2017) McGraw Hill, 13th Edition, ISBN: 9781259667473

Reference Books:
1. K. Aswathappa & K. Shridhara Bhat, Production and Operations Management (2020), Himalaya Publishing, 2nd Edition, ISBN: 9789352621247
2. S. Anil Kumar, N. Suresh, Operations Management (2018), New Age International, 3rd Edition, ISBN: 9788122437257

Web Links:
1. https://onlinecourses.nptel.ac.in/noc20_me30/preview
2. https://archive.nptel.ac.in/courses/112/107/112107238/

Relevant cases have to be discussed in each unit and in examination case study is compulsory from any unit.

COST AND MANAGEMENT ACCOUNTING

	L	T	P	C
Course Code: 2605MS14	**2**	**1**	0	**3**

Course Outcomes:

At the end of the Course, Student will be able to:

- **CO1:** Explain the Concept of Cost and Management Accounting
- **CO2:** Identify the Elements of Material, Labour and Overhead Cost
- **CO3:** Preparation of Cost sheet
- **CO4:** Analyze the Concept Marginal Costing and CVP analysis
- **CO5:** Evaluation techniques of Budgeting

Mapping of Course Outcomes with Program Outcomes:

CO / PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	3	2	3	2	3	3	2	2	3	3	3
CO2	3	3	3	3	2	2	3	3	3	3	2
CO3	3	3	3	2	3	3	3	3	3	3	3
CO4	3	3	3	3	3	2	2	3	3	3	3
CO5	3	2	3	3	3	3	3	2	3	3	3

Mapping of Course Outcomes with Program Specific Outcomes:

CO / PSO	PSO1	PSO2	PSO3
CO1	3	2	3
CO2	3	3	2
CO3	3	3	3
CO4	3	3	3
CO5	3	2	3

UNIT – I

Introduction to Cost and Management Accounting: Definition, Nature, Objectives, Scope, Advantages and Limitations of Cost Accounting: Definition, Nature, Objectives, Scope, Advantages and Limitations of Management Accounting: Cost Accounting Vs. Management Accounting Vs. Financial Accounting.

UNIT – II

Material & Labour: Material – meaning-types, computing stock level –EOQ – Pricing of issue of material – FIFO –LIFO & Simple and Weighted average methods. Labour – Computation of labour cost – Time rate & piece rate system.

UNIT – III

Overheads & Preparation Cost sheet: Overheads – meaning & definition, concepts of overheads allocation. Preparation of cost sheet – format –objects & methods of cost sheet preparation.

UNIT – IV

Marginal Costing and Budgetary Control: Meaning and importance of Marginal Costing. Marginal Cost Equation, Break-even Analysis, P/V ratio, Margin of Safety. Types of budgets, flexible budget, and cash budget. Budgetary control and practical problems.

UNIT – V

Budgetary control: Budget – meaning –types – budgetary control – steps in budgetary control, Fixed budget, flexible budget, cash budget, production budget, sales budget and budgetary control problems.

Textbooks:

1. M.P. Gupta & Dr. Ajay Gupta, Cost and Management Accounting, Sultan Chand & Sons, ISBN: 978-93-91820-47-3
2. Ravi M. Kishore, Cost & Management Accounting, Foundational to Advanced Concepts (Reprint 2025), Taxmann Publications, 6th Edition, ISBN: 978-93-92211- 13-3

Reference Books:

1. S.N.Maheswari, Cost and Management Accounting, Sultan Chand Publications, ISBN-10. 8180549755; ISBN-13. 978-8180549755
2. CA Sunil Keswani, Cost & Management Accounting, Bharat Law House, ISBN: 978-93- 90854-07-3

Web Links:

1. https://archive.nptel.ac.in/courses/110/101/110101132/
2. https://onlinecourses.nptel.ac.in/noc20_mg53/preview

Relevant cases have to be discussed in each unit and in examination case study is compulsory from any unit.

ENTREPRENEURSHIP AND STARTUP ECO-SYSTEM

	L	T	P	C
Course Code: 2605MS15	**2**	**0**	**1**	**3**

Course Outcomes:

At the end of the Course, Student will be able to:

- **CO1:** Explain entrepreneurship and its role in economic development
- **CO2:** Identify entrepreneurial strategies, business models, and competencies.
- **CO3:** Analyze the startup environment and business plan components.
- **CO4:** Compare funding sources and government support for startups
- **CO5:** Explore institutions supporting business enterprises

Mapping of Course Outcomes with Program Outcomes:

CO / PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	3	2	2	3	2	1	1	1	2	1	2
CO2	3	3	2	2	2	2	2	2	3	2	2
CO3	2	3	3	3	2	2	2	1	3	2	3
CO4	2	2	2	2	3	3	2	1	2	2	2
CO5	2	2	2	1	2	2	3	2	2	1	2

Mapping of Course Outcomes with Program Specific Outcomes:

CO / PSO	PSO1	PSO2	PSO3
CO1	3	3	3
CO2	3	3	3
CO3	3	3	3
CO4	3	3	3
CO5	3	3	3

UNIT – I

Introduction to Entrepreneurship & Family Business: Definition and concept of entrepreneurship, characteristics of entrepreneurs, types of entrepreneurs, the role of entrepreneurship in economic development, and start-ups. Characteristics of family businesses, with examples from Indian family businesses like Murugappa, Dabur, Wadia, Godrej, and Kirloskar.

UNIT – II

Evaluating Business Opportunities: Sources of business ideas, recognizing opportunities, estimating market potential, feasibility analysis of business ideas, and analyzing industry, competition, and the business environment.

UNIT – III

Building Blocks of Starting Ventures: Low-cost marketing using digital technologies, team building from scratch, securing venture funding, establishing the value chain,

managing operations, and understanding legal aspects like Intellectual Property Rights (IPR) and compliance.

UNIT – IV

Start-up Ecosystem: Understanding the start-up ecosystem components, including incubators, accelerators, venture capital funds, angel investors, and government schemes like Start-up India, Digital India, and MSME. Sources of venture funding and intellectual property management in India.

UNIT – V

Technology and Innovation in Start-ups: Sources of technology for start-ups, managing intellectual property, and leveraging innovation for growth in start-ups.

Textbooks:

1. Robert Hisrich, Michael Peters, and Dean Shepherd, Entrepreneurship (2019), McGraw Hill Education, 11th Edition, ISBN-10. 939011330X · ISBN-13. 978- 9390113309
2. Fabio Greco, Startup Ecosystems (2023) Springer publications, ISBN-13-978-3031344138

Reference Books:

1. Dr. N. M. Louly, Dr. Mohammed Quadir Mohiuddin, Dr. Aarti Deshpande, Dr. B. Kavitha, Entrepreneurship Basics, REST Publisher, ISBN: 978-81-967493-7-8
2. Dr. K. Suresh, Sheetal V. Hukkeri, Dr. S. Ragavan, Dr. V. Sasirekha, Fundamentals of Entrepreneurship (2024), REST Publisher, ISBN: 978-81-966857-3-7

Web Links:

1. https://onlinecourses.nptel.ac.in/noc20_mg35/preview
2. https://onlinecourses.swayam2.ac.in/imb23_mg27/preview?ref=schoolokay.in

Relevant cases have to be discussed in each unit and in examination case study is compulsory from any unit.

BUSINESS TAXATION

Course Code: 2605MS16	L	T	P	C
	2	1	0	3

Course Outcomes:

At the end of the Course, Student will be able to:

CO1: Describe the basic framework of taxation in India and classify different types of taxes.

CO2: Prepare simple computation of taxable business income under Income Tax provisions.

CO3: Explain the basic concepts of Customs Duty and their relevance to trade.

CO4: Illustrate the structure and functioning of GST in business transactions.

CO5: Perform basic GST calculations including input tax credit and return preparation

Mapping of Course Outcomes with Program Outcomes:

COs / POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	3	2	1	2	2	3	2	1	2	2	2
CO2	2	3	2	1	2	2	2	2	1	2	1
CO3	2	3	2	1	2	3	1	1	2	2	2
CO4	3	3	3	1	2	2	2	2	2	1	2
CO5	3	2	2	2	2	2	2	1	2	2	2

Mapping of Course Outcomes with Program Specific Outcomes:

CO / PSO	PSO1	PSO2	PSO3
CO1	3	2	1
CO2	2	2	2
CO3	2	2	2
CO4	3	3	2
CO5	3	2	2

UNIT – I

Basic Concepts of Taxation: Meaning and Objectives of Taxation. Canons of Taxation. Overview of Indian Tax System. Direct and Indirect Taxes – Meaning and Examples. Difference between Direct and Indirect Taxes. Basic understanding of Union and State taxation powers.

UNIT – II

Income Tax – Business Basics: Concept of Income under Income Tax Act. Heads of Income (Overview). Computation of Income from Business – Basic format. Allowable and Disallowable Expenses (Simple Examples). Depreciation (Basic Method). Introduction to TDS and Advance Tax (Conceptual). Simple Numerical Problems.

UNIT – III

Customs and Basic Indirect Tax Concepts: Meaning of Customs Duty. Types of Customs

Duties (Basic Customs Duty, IGST on imports – Concept only). Simple Calculation of Customs Duty. Exemptions and Duty Drawback (Basic Idea). Role of Customs in International Trade.

UNIT – IV

Introduction to GST: Need for GST and Background. Structure of GST – CGST, SGST, IGST. Concept of Supply under GST. Levy and Collection of GST. GST Rate Structure. Simple GST Computation Problems.

UNIT – V

GST Compliance for Business: Input Tax Credit (ITC) – Conditions and Computation. Reverse Charge Mechanism (Basic). GST Returns – Types and Due Dates (Overview). Composition Scheme. Practical Illustrations of GST on Business Transactions.

Textbooks:

1. Singhania, V. K., & Singhania, M. (2023). *Students' Guide to Income Tax* (Latest ed.). Taxmann Publications. ISBN: 9789356223097.
2. Datey, V. S. (2023). *Indirect Taxes: Law and Practice (GST & Customs)* (Latest ed.). Taxmann Publications. ISBN: 9789356225916.

Reference Books:

1. Mehrotra, H. C., & Goyal, S. P. (2022). *Income Tax Law and Accounts*. Sahitya Bhawan Publications. ISBN: 9789351737636.
2. Bansal, K. M. (2022). *GST & Customs Law*. Taxmann Publications. ISBN: 9789356221185.

Web Links:

1. https://www.gst.gov.in/
2. https://incometaxindia.gov.in/

Relevant cases have to be discussed in each unit and in examination case study is compulsory from any uni

MANAGEMENT INFORMATION SYSTEMS

Course Code: 2605MS19	L	T	P	C
	3	0	1	4

Course Outcomes:

At the end of the Course, Student will be able to:

- **CO1:** Explain the information needs of an organization and a business function
- **CO2:** Identify the effectiveness of decision-making process and MIS design
- **CO3:** Utilize DSS techniques for making effective decisions
- **CO4:** Design parameters for information systems process and application
- **CO5** Apply DBMS to attain the goals of the organization

Mapping of Course Outcomes with Program Outcomes:

CO / PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	3	2	2	3	3	3	3	2	3	3	3
CO2	3	2	3	3	3	2	3	3	2	3	3
CO3	3	3	3	3	3	3	3	2	3	3	3
CO4	3	3	2	3	2	3	3	3	3	3	2
CO5	3	3	3	3	3	3	2	3	3	3	3

Mapping of Course Outcomes with Program Specific Outcomes:

CO / PSO	PSO1	PSO2	PSO3
CO1	3	2	2
CO2	3	3	2
CO3	3	3	3
CO4	3	3	3
CO5	3	3	3

UNIT – I

Introduction to Management Information Systems (MIS): Overview of MIS, types of MIS, dimensions and components of information systems (IS), benefits of MIS, IT infrastructure, evolution of IT infrastructure, and new approaches for system building in the digital era.

UNIT – II

Database Management Systems (DBMS): Objectives of database approach, characteristics of DBMS, data processing systems, components of DBMS packages, database administration, and the Entity-Relationship (ER) model.

UNIT – III

Information System Applications: MIS applications, Decision Support Systems (DSS), Group Decision Support Systems (GDSS), DSS applications in e-enterprise, Knowledge

Management Systems (KMS), Expert Systems (KBES), Enterprise Model Systems, E-business, E-commerce, E-communication, and Business Process Reengineering.

UNIT – IV

Project Management Basics: Objectives of project management, fundamentals of project management information systems (PMIS) with agile methodologies, introduction to SCRUM, roles and meetings, user stories, project risk management, and controlling risk factors.

UNIT – V

Ethical, Social, and Political Issues in Information Systems: Ethical, social, and political considerations in managing information systems, with a focus on the implications of these issues in the information era.

Textbooks:

1. Bernd Schenk, Advanced Management Information Systems: Models, Concepts and Cases (2025), Springer Cham Publication, ISBN-13: 978-3031879036
2. Kenneth C. Laudon & Jane P. Laudon, Management Information Systems: Managing the Digital Firm (2021) Pearson Publication, 17th Edition, ISBN-13: 978-0136971542

Reference Books:

1. Prasad L.M., Prasad Usha, Management Information Systems (2023), Sultan Chand & Sons, ISBN- 81- 8054-814-7
2. Goyal, D.P.: Management Information System, MACMILLAN India Limited, New Delhi. ISBN- 10 : 14• 03930996, ISBN-13: 978-1403930996

Web Links:

1. https://onlinecourses.nptel.ac.in/noc20_mg60/preview
2. https://archive.nptel.ac.in/courses/122/105/122105022/

Relevant cases have to be discussed in each unit and in examination case study is compulsory from any unit.

PROJECT MANAGEMENT

Course Code: 2605MS20	L	T	P	C
	2	0	1	3

Course Outcomes:

At the end of the Course, Student will be able to:

- **CO1:** Explain the basic concepts of project Management
- **CO2:** Estimate project planning and risk.
- **CO3:** Interpret project financing through techniques
- **CO4:** Analyze the concept of Project controlling
- **CO5:** Summarize stress management, conflict management and team building

Mapping of Course Outcomes with Program Outcomes:

COs / POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	3	2	1	2	2	1	1	2	2	2	1
CO2	3	3	2	1	2	1	1	1	2	2	1
CO3	2	3	2	1	2	1	1	1	2	2	2
CO4	3	3	2	1	3	1	1	1	1	3	2
CO5	2	2	2	2	2	2	3	3	2	2	2

Mapping of Course Outcomes with Program Specific Outcomes:

CO / PSO	PSO1	PSO2	PSO3
CO1	3	2	1
CO2	3	3	2
CO3	3	3	2
CO4	3	2	2
CO5	2	2	2

UNIT – I

Introduction to Project Management: Project Characteristics – Project Life Cycle – Project Identification, Formulation and Implementation – Project Management in Different Sectors, Systems Approach to Project Management

UNIT – II

Project Appraisal: Project Planning – Steps in Project Planning – Scheduling – Project Appraisal – Feasibility Study – Technical, Commercial, Economic, Financial, Management, Social, Cost Benefit Analysis – Project Risk Analysis

UNIT – III

Project Finance: Project Cost Estimation, Project Financing – Investment Criteria, Project Evaluation Techniques –Cash Flows Estimation for New and Replacement Projects – Cost

of Capital, Risk Analysis.

UNIT – IV

Project Control: Network Diagrams, Network Analysis, Critical Path, Quality Management, Project Execution, Monitoring and Control, Agile Project Management, Scrum, Lean Production.

UNIT – V

Organizational Behavior and Project Management: Structure & Integration, Project Manager & Team Role, Stakeholder Engagement, Leadership, Conflict & Stress Management in Projects.

Textbooks:

1. Erik W. Larson & Clifford F. Gray, Project Management: The Managerial Process McGraw Hill (2022), 8th Edition, ISBN: 978-9354602078
2. A Guide to the Project Management Body of Knowledge (PMBOK Guide) (2021)– Project Management Institute, 7th Edition, ISBN: 978-1628256659

Reference Books:

1. K. Nagarajan, Project Management (2020) New Age International, 9th Edition ISBN: 9789360748531
2. Harold Kerzner, Project Management: A Systems Approach (2017) Wiley, 12th Edition 2017 ISBN: 9781119165354

Web Links:

1. https://onlinecourses.nptel.ac.in/noc23_mg124/preview
2. https://onlinecourses.nptel.ac.in/noc24_mg01/preview

Relevant cases have to be discussed in each unit and in examination case study is compulsory from any unit.

BUSINESS RESEARCH METHODOLOGY

	L	T	P	C
Course Code: 2605MS21	**3**	**0**	**1**	**4**

Course Outcomes:

At the end of the Course, Student will be able to:

CO1: Explain the fundamentals of research, its types, ethical considerations, and the characteristics of good research**.**

CO2: Explain the process of identifying research problems, setting objectives, reviewing literature, and understanding research design types**.**

CO3: Apply appropriate measurement techniques and data collection methods for conducting effective research**.**

CO4: Analyze and evaluate sampling techniques and perform data preparation for effective research analysis**.**

CO5: Analyze and interpret research data using statistical tools and visualization techniques for effective decision-making**.**

Mapping of Course Outcomes with Program Outcomes:

CO / PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	3	3	3	3	2	2	3	3	2	3	3
CO2	3	3	3	3	2	2	3	3	2	3	3
CO3	3	3	2	3	2	3	3	2	2	3	3
CO4	3	3	2	3	2	3	3	2	2	3	3
CO5	3	3	2	3	2	3	3	2	2	3	3

Mapping of Course Outcomes with Program Specific Outcomes:

CO / PSO	PSO1	PSO2	PSO3
CO1	3	3	3
CO2	3	3	3
CO3	3	3	3
CO4	3	3	3
CO5	3	3	3

UNIT – I

Introduction to Research: Definition, history, evolution, and types of research. Scientific inquiry and research ethics. Characteristics of good research and the research process.

UNIT – II

Research Problem and Design: Identifying and formulating research problems, setting objectives, and conducting literature reviews. Basics of research design and types.

UNIT – III

Measurement and Data Collection: Concepts of measurement and scaling, types of data,

measurement errors, and scale construction. Data collection methods: questionnaires, interviews, and observation.

UNIT – IV

Sampling and Data Preparation: Sampling techniques, sample size, and types of sampling. Data editing, coding, and preparation for analysis.

UNIT – V

Data Analysis and Interpretation: Hypothesis testing (parametric & non-parametric), tools for analysis, and data visualization techniques such as charts, graphs, and box plots.

Textbooks:

1. Dr. C.R. Kothari, Research Methodology & Business Research (2024), Galgotia Publishing Company, ISBN: 978-93-90980-48-2.
2. Dr. Zillur Rahman, Business Research Methods, McGraw Hill Education, ISBN: 978-9390177530

Reference Books:

1. J.K. Sachdeva, Business Research Methodology (2024), Himalaya Publishing House, ISBN: 978-9352625925
2. H.K. Dangi & Shruti Dewen, Business Research Methods (2024), Vikas Publishing House (Imprint of S. Chand Publishing), 2nd Edition, ISBN: 978-9359307107.
3. Robert S Witte and John S Witte, Statistics, Wiley. ISBN: 978-1-119-25451-5

Web Links:

1. https://onlinecourses.swayam2.ac.in/cec20_mg14/preview
2. https://archive.nptel.ac.in/courses/110/107/110107080/

Relevant cases have to be discussed in each unit and in examination case is compulsory from any unit.

STRATEGIC MANAGEMENT

Course Code: 2605MS22	L	T	P	C
	2	0	1	3

Course Outcomes:

At the end of the Course, Student will be able to:

CO1: Elaborate the basic concepts and characteristics of Strategic management.
CO2: Build skills to develop strategic vision, mission objectives.
CO3: Develop knowledge on types of strategies to implement.
CO4: Build awareness on various strategy evaluation and controlling approaches
CO5: Visualize various strategies for managing global competition

Mapping of Course Outcomes with Program Outcomes:

CO / PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	3	2	2	2	2	1	2	2	2	2	1
CO2	3	2	3	2	2	2	2	2	2	2	1
CO3	3	2	3	2	2	2	3	1	2	2	1
CO4	3	2	3	2	2	3	2	1	2	2	1
CO5	2	2	3	2	2	2	3	2	2	2	1

Mapping of Course Outcomes with Program Specific Outcomes:

CO / PSO	PSO1	PSO2	PSO3
CO1	3	2	2
CO2	3	2	2
CO3	3	2	2
CO4	3	2	2
CO5	2	3	2

UNIT – I

Strategic Planning: Definition, importance, and characteristics of strategic decisions. Difference between policy, strategy, and tactics. Strategic planning vs. long-range planning. Overview of strategic management process.

UNIT – II

Strategy Formulation: Mission, vision, and goal setting. Business environment analysis: External and Internal, Strategic analysis tools: BCG Matrix, Ansoff's Product-Market Matrix. Long-term strategy formulation: Market development, product development, diversification, integration, and liquidation.

UNIT – III

Strategy & Corporate Restructuring Implementation: Strategy and structure, managing strategic change, strategic control mechanisms. Management tools: Benchmarking, Reengineering, Balanced Scorecard. Corporate restructuring: Mergers, acquisitions, joint ventures, and strategic alliances.

UNIT – IV

Strategic Evaluation and Control: Strategic controls, performance benchmarking, strategic information systems. Strategy evaluation tools: Strategic audit, feedback mechanisms. considerations in strategy.

UNIT – V

Global Issues in Strategic Management: Challenges and opportunities in international business strategy. The role of strategic management in Global companies, Advantages & disadvantages of global operations. Role of global institutions in strategic decision-making.

Textbooks:

1. Fred R. David & Forest R. David, Strategic Management: A Competitive Advantage Approach Pearson (2023), 18th Edition, ISBN:9789361590955
2. Arthur A. Thompson et al., Crafting and Executing Strategy (2021), McGraw Hill, 22nd Edition, ISBN: 978-9354600043

Reference Books:

1. Azhar Kazmi, Strategic Management and Business Policy (2021) McGraw Hill, 4th Edition, ISBN: 978-9339221836
2. Lawrence R. Jauch & William F. Glueck, Business Policy and Strategic Management (2004) McGraw Hill, 5th Edition, ISBN: 978-0070323476

Web Links:

1. http://tjsec.digimat.in/nptel/courses/video/110108047/L21.html
2. https://archive.nptel.ac.in/courses/110/108/110108047/

Relevant cases have to be discussed in each unit and in examination case study is compulsory from any unit

DISCIPLINE SPECIFIC COURSES
(BUSINESS ANALYTICS)

EXCEL FOR BUSINESS ANALYTICS

	L	T	P	C
Course Code: 2607MS01	**2**	**0**	**1**	**3**

Course Outcomes:
At the end of the Course, Student will be able to:

CO1: Demonstrate proficiency in Excel navigation, data structuring, formatting, and productivity best practices for business datasets.

CO2: Apply appropriate Excel formulas and functions to clean, transform, and analyze structured business data.

CO3: Design meaningful charts and visual summaries to communicate business insights effectively.

CO4: Build and analyze PivotTables to summarize, aggregate, and explore large datasets interactively.

CO5: Develop business models using What-If Analysis tools to support managerial decision-making and optimization.

Mapping of Course Outcomes with Program Outcomes:

CO / PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	3	2	2	2	1	1	1	1	3	1	2
CO2	3	3	3	2	1	1	1	1	3	1	2
CO3	2	3	2	3	1	1	1	1	3	2	2
CO4	3	3	3	2	1	2	1	1	3	2	2
CO5	3	3	3	2	1	2	2	1	3	2	3

Mapping of Course Outcomes with Program Specific Outcomes:

CO / PSO	PSO1	PSO2	PSO3
CO1	3	2	2
CO2	3	3	2
CO3	2	3	2
CO4	3	3	2
CO5	3	3	3

UNIT – I
Excel Basics & Productivity Setup

Introduction to Excel interface and workbook structure; data types (text, numeric, date, logical); formatting best practices for business datasets; Excel tables and structured references; named ranges; worksheet organization; keyboard shortcuts for productivity; data cleanliness and layout standards; version control and file management.

UNIT – II

Formulas & Functions for Business Analysis

Arithmetic and logical formulas; relative, absolute, and mixed references; conditional functions (IF, AND, OR); aggregation functions (SUM, AVERAGE, COUNT); conditional aggregation (SUMIF, COUNTIF, AVERAGEIF); lookup and reference functions (INDEX-MATCH, XLOOKUP); text functions; date and time functions; error handling and formula auditing.

UNIT – III

Charts & Visual Summaries

Principles of data visualization; selecting appropriate chart types for business problems; bar, column, line, area, pie, and combo charts; sparklines; chart formatting and labeling; storytelling with data; dashboard basics; visual best practices for executive reporting.

UNIT – IV

PivotTables & Data Aggregation

Introduction to PivotTables; summarizing large datasets; grouping and filtering; calculated fields; PivotCharts; slicers and timelines; interactive analysis; business reporting using PivotTables.

UNIT – V

Business Scenarios & What-If Analysis

What-If Analysis concepts; Goal Seek; Scenario Manager; Solver for optimization problems; sensitivity analysis; business applications in pricing, budgeting, forecasting, and operations planning.

Textbooks:

1. Winston, W. L. (2019). *Microsoft Excel Data Analysis and Business Modeling* (6th ed.). Microsoft Press. ISBN: 9781509307005
2. Albright, S. C., & Winston, W. L. (2020). *Business Analytics: Data Analysis & Decision Making* (7th ed.). Cengage Learning. ISBN: 9780357131787

Reference Books:

1. Walkenbach, J. (2015). *Excel 2016 Bible*. Wiley. ISBN: 9781119067511
2. Powell, S. G., & Baker, K. R. (2017). *Management Science: The Art of Modeling with Spreadsheets* (4th ed.). Wiley. ISBN: 9781119246824

Web Links:

1. https://onlinecourses.nptel.ac.in/
2. https://www.coursera.org/specializations/excel

Relevant cases have to be discussed in each unit and in examination case study is compulsory from any unit.

INTRODUCTION TO DATA VISUALIZATION

	L	T	P	C
Course Code: 2607MS02	**2**	**0**	**1**	**3**

Course Outcomes:

At the end of the Course, Student will be able to:

CO1: Explain the principles of visual thinking and frame business problems into effective data stories.

CO2: Select and apply appropriate chart types to represent comparison, composition, distribution, and relationships.

CO3: Build basic data models in Power BI by loading data, defining relationships, and creating simple measures.

CO4: Design clear, accessible, and well-structured dashboards using standard visualization principles.

CO5: Develop interactive dashboards by implementing interactivity features and effectively communicate business insights and recommendations to stakeholders.

Mapping of Course Outcomes with Program Outcomes:

CO / PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	3	3	3	2	1	1	1	1	2	2	2
CO2	3	3	3	2	1	1	1	1	2	2	2
CO3	3	3	2	1	1	1	1	1	3	1	2
CO4	3	2	2	3	1	2	1	1	3	2	2
CO5	3	3	3	3	1	2	2	2	3	3	2

Mapping of Course Outcomes with Program Specific Outcomes:

CO / PSO	PSO1	PSO2	PSO3
CO1	3	2	2
CO2	3	3	2
CO3	3	3	3
CO4	3	3	2
CO5	3	3	3

UNIT – I

Visual Thinking & Story Framing

Introduction to data visualization; importance of visual thinking in business analytics; understanding audience needs and business context; defining analytical questions; mapping business questions to appropriate visuals; storytelling concepts; structure of a data-driven narrative.

UNIT – II

Chart Types & Their Applications

Overview of common chart types; comparison charts (bar, column, line); composition charts (stacked bar, area, tree map); distribution charts; relationship charts (scatter plots); use of small multiples; guidelines for selecting appropriate visual forms.

UNIT – III

Data Modeling Basics in Power BI

Introduction to Power BI environment; loading data from Excel sources; basic data transformation concepts; understanding tables and relationships; star schema intuition; creating simple measures using DAX functions (SUM, COUNT, COUNTROWS).

UNIT – IV

Dashboard Design Principles

Principles of effective dashboard design; layout planning and visual hierarchy; decluttering visuals; appropriate use of color and contrast; consistent labeling and formatting; accessibility considerations in dashboards.

UNIT – V

Dashboard Interactivity and Stakeholder Communication

Enhancing dashboards with interactivity features such as filters, slicers, visual interactions, drill-through pages, tooltips, and bookmarks for guided analysis. Designing user-driven data exploration experiences. Structuring and presenting dashboards to business stakeholders; communicating insights effectively; linking visual findings to business objectives; use of callouts and annotations; developing data-driven recommendations based on visual evidence.

Textbooks:

1. Evergreen, S. D. H. (2017). *Effective Data Visualization: The Right Chart for the Right Data*. SAGE Publications. ISBN: 9781506333373
2. Knaflic, S. N. (2015). *Storytelling with Data: A Data Visualization Guide for Business Professionals*. Wiley. ISBN: 9781119002253

Reference Books:

1. Few, S. (2013). *Information Dashboard Design: Displaying Data for At-a-Glance Monitoring* (2nd ed.). Analytics Press. ISBN: 9781938377006
2. Russo, R., & Ferrari, A. (2021). *Power BI Visuals Cookbook* (2nd ed.). Packt Publishing. ISBN: 9781800564183

Web Links:

1. https://onlinecourses.nptel.ac.in/
2. https://www.coursera.org/learn/data-visualization-power-bi

Relevant cases have to be discussed in each unit and in examination case study is compulsory from any unit.

BUSINESS PROBLEM SOLVING WITH ANALYTICS

	L	T	P	C
Course Code: 2607MS03	**2**	**0**	**1**	**3**

Course Outcomes:

At the end of the Course, Student will be able to:

CO1: Define and scope business problems by identifying objectives, constraints, stakeholders, and success criteria.

CO2: Translate business problems into structured analytical and spreadsheet-based models.

CO3: Collect, clean, and validate data to ensure model reliability and accuracy.

CO4: Apply spreadsheet-based analytical techniques to solve real-world business case problems.

CO5: Generate insights from analytical models and execute an end-to-end analytics problem-solving project, converting findings into actionable business recommendations with proper documentation and reproducibility.

Mapping of Course Outcomes with Program Outcomes:

CO / PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	3	3	3	2	1	2	2	1	2	2	2
CO2	3	3	3	1	1	2	2	1	3	2	2
CO3	3	3	2	1	1	1	1	1	3	1	2
CO4	3	3	3	2	1	2	2	1	3	2	2
CO5	3	3	3	3	1	3	2	2	3	3	3

Mapping of Course Outcomes with Program Specific Outcomes:

CO / PSO	PSO1	PSO2	PSO3
CO1	3	3	2
CO2	3	3	3
CO3	3	3	2
CO4	3	3	2
CO5	3	3	3

UNIT – I

Problem Identification & Scoping

Understanding business problems and decision contexts; defining problem statements; identifying stakeholders; setting success criteria; recognizing constraints and assumptions; SMART goal formulation; hypothesis framing; scope definition and scope control using structured logs.

UNIT – II

Analytical Modeling Fundamentals

Introduction to analytical thinking and modeling; translating business problems into analytical models; defining model inputs, outputs, and logic; use of assumptions and drivers; model structuring using spreadsheet blocks; model transparency, auditability, and

documentation.

UNIT – III

Data Collection & Cleaning

Sources of business data; data collection techniques; data preparation for modeling; handling missing values and inconsistencies; de-duplication; outlier detection and treatment; use of data validation techniques in spreadsheets.

UNIT – IV

Case-Based Modeling Practice

Spreadsheet-based case problem solving; modeling inventory, scheduling, and pricing problems; basic optimization concepts; introduction to Solver; scenario toggles and sensitivity tables; interpretation of model outputs.

UNIT – V

Insight Generation & End-to-End Analytics Project

Interpreting analytical results and converting them into managerial insights and actionable recommendations aligned with business objectives. Application of the complete analytics cycle including problem scoping, model development, validation, documentation, reproducibility, and presentation of findings.

Textbooks:

1. Powell, S. G., & Baker, K. R. (2017). *Management Science: The Art of Modeling with Spreadsheets* (4th ed.). Wiley. ISBN: 9781119246824
2. Albright, S. C., & Winston, W. L. (2020). *Business Analytics: Data Analysis & Decision Making* (7th ed.). Cengage Learning. ISBN: 9780357131787

Reference Books:

1. Winston, W. L. (2019). *Microsoft Excel Data Analysis and Business Modeling* (6th ed.). Microsoft Press. ISBN: 9781509307005
2. Clemen, R. T., & Reilly, T. (2013). *Making Hard Decisions with DecisionTools* (3rd ed.). Cengage Learning. ISBN: 9781118583128

Web Links:

1. https://onlinecourses.nptel.ac.in/
2. https://www.coursera.org/specializations/business-analytics

Relevant cases have to be discussed in each unit and in examination case study is compulsory from any unit.

MARKETING ANALYTICS ESSENTIALS

	L	T	P	C
Course Code: 2607MS04	**2**	**0**	**1**	**3**

Course Outcomes:

At the end of the Course, Student will be able to:

CO1: Explain the objectives and foundations of market segmentation and prepare data for segmentation analysis.

CO2: Compute and interpret customer lifetime value and identify its key business drivers.

CO3: Design and evaluate basic marketing experiments and assess campaign performance using uplift and ROI.

CO4: Build Excel-based models to calculate and analyze core marketing performance indicators.

CO5: Analyze pricing, promotion, and customer retention decisions using elasticity, break-even, optimization, and basic CRM analytics to support data-driven business strategies.

Mapping of Course Outcomes with Program Outcomes:

CO / PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	3	3	3	1	1	2	2	1	2	2	2
CO2	3	3	3	2	1	2	2	1	2	2	2
CO3	3	3	3	2	1	2	2	1	2	2	2
CO4	3	3	3	2	1	2	2	1	3	2	2
CO5	3	3	3	2	1	2	3	1	3	2	2

Mapping of Course Outcomes with Program Specific Outcomes:

CO / PSO	PSO1	PSO2	PSO3
CO1	3	3	2
CO2	3	3	2
CO3	3	3	2
CO4	3	3	3
CO5	3	3	3

UNIT – I

Segmentation Fundamentals

Introduction to market segmentation; objectives and benefits of segmentation in marketing decision-making; selection of segmentation variables; data preparation for segmentation analysis; feature selection concepts; basic scaling intuition; creation and interpretation of segment labels.

UNIT – II

Customer Lifetime Value (CLV)

Concept of customer lifetime value; importance of CLV in marketing strategy; calculation of simple CLV; margin-adjusted CLV; role of retention rate, discount rate, margins, and acquisition cost; interpretation of CLV drivers for managerial decisions.

UNIT – III

Campaign Analysis & A/B Testing

Overview of marketing campaigns and experimentation; design of basic A/B tests; introduction to hypothesis testing concepts; measurement of campaign uplift; calculation and interpretation of return on investment (ROI).

UNIT – IV

Excel Modeling for Marketing KPIs

Key marketing performance indicators; calculation of click-through rate (CTR), conversion rate, cost per acquisition (CPA), customer acquisition cost (CAC), and LTV:CAC ratio; funnel mathematics; development of reusable Excel-based KPI calculators.

UNIT – V

Pricing & CRM Analytics

Price elasticity, promotion evaluation, break-even analysis, and basic pricing optimization using Solver. CRM fundamentals, churn measurement, retention tracking, and simple retention strategy modeling.

Textbooks:

1. Farris, P. W., Bendle, N. T., Pfeifer, P. E., & Reibstein, D. J. (2020). *Marketing Metrics: The Definitive Guide to Measuring Marketing Performance* (4th ed.). Pearson Education. ISBN: 9780134085969
2. Winston, W. L. (2019). *Microsoft Excel Data Analysis and Business Modeling* (6th ed.). Microsoft Press. ISBN: 9781509307005

Reference Books:

1. Lilien, G. L., Rangaswamy, A., & De Bruyn, A. (2017). *Principles of Marketing Engineering and Analytics* (3rd ed.). DecisionPro. ISBN: 9780975914632
2. Gupta, S., & Lehmann, D. R. (2005). *Managing Customers as Investments: The Strategic Value of Customers in the Long Run*. Pearson Education. ISBN: 9780131428950

Web Links:

1. https://onlinecourses.nptel.ac.in/
2. https://www.coursera.org/specializations/marketing-analytics

Relevant cases have to be discussed in each unit and in examination case study is compulsory from any unit.

PYTHON FOR BUSINESS ANALYTICS

	L	T	P	C
Course Code: 2607MS05	**2**	**0**	**1**	**3**

Course Outcomes:

At the end of the Course, Student will be able to:

CO1: Demonstrate basic proficiency in Python programming concepts and notebook-based workflows.

CO2: Load, clean, and manipulate structured business data using the pandas library.

CO3: Create and customize data visualizations to explore and communicate insights.

CO4: Apply simple regression techniques in Python and interpret model results.

CO5: Automate analytical tasks and execute a mini end-to-end analytics project with reporting.

Mapping of Course Outcomes with Program Outcomes:

CO / PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	3	2	2	1	1	1	1	1	3	1	2
CO2	3	3	3	1	1	1	1	1	3	1	2
CO3	3	3	2	2	1	1	1	1	3	2	2
CO4	3	3	3	1	1	1	1	1	3	1	2
CO5	3	3	3	3	1	2	2	2	3	2	3

Mapping of Course Outcomes with Program Specific Outcomes:

CO / PSO	PSO1	PSO2	PSO3
CO1	3	2	2
CO2	3	3	3
CO3	3	3	3
CO4	3	3	2
CO5	3	3	3

UNIT – I

Getting Started with Python

Introduction to Python for business analytics; setting up the Python environment; working with Jupyter notebooks; understanding Python syntax; variables and data types; lists, tuples, dictionaries; conditional statements and basic control flow.

UNIT – II

Data Handling with pandas

Introduction to pandas library; loading data from files; inspecting and understanding DataFrames; filtering and selecting data; handling missing values; groupby operations and aggregation; merging and joining multiple datasets.

UNIT – III

Visualization with matplotlib and seaborn
Principles of data visualization in Python; creating line, bar, and scatter plots; customizing plot aesthetics; working with multiple plots and subplots; using visualization to explore and explain business data.

UNIT – IV
Introduction to Regression in Python
Concept of regression analysis; fitting simple linear regression models using Python libraries; understanding ordinary least squares (OLS); interpreting coefficients, R-squared, and residuals; evaluating model fit and limitations.

UNIT – V

Automation & Mini Project Automation of repetitive analytical tasks using reusable code blocks, loops, and functions; file input and output operations; exporting results for reporting. End-to-end mini project including data preparation, analysis, visualization, documentation, and presentation of findings.

Textbooks:

1. McKinney, W. (2022). *Python for Data Analysis* (3rd ed.). O'Reilly Media. ISBN: 9781098104030
2. VanderPlas, J. (2016). *Python Data Science Handbook*. O'Reilly Media. ISBN: 9781491912058

Reference Books:

1. Grus, J. (2019). *Data Science from Scratch* (2nd ed.). O'Reilly Media. ISBN: 9781492041139
2. Matthes, E. (2023). *Python Crash Course* (3rd ed.). No Starch Press. ISBN: 9781718502703

Web Links:
1. https://onlinecourses.nptel.ac.in/
2. https://www.coursera.org/specializations/python

Relevant cases have to be discussed in each unit and in examination case study is compulsory from any unit.

FINANCIAL ANALYTICS FOR DECISION MAKING

	L	T	P	C
Course Code: 2607MS06	**2**	**0**	**1**	**3**

Course Outcomes:

At the end of the Course, Student will be able to:

CO1: Apply time value of money concepts to evaluate financial decisions involving cash flows.

CO2: Prepare budgets and perform variance analysis to monitor financial performance.

CO3: Evaluate and compare investment projects using capital budgeting techniques.

CO4: Analyze cost structures and assess product or business profitability.

CO5: Design financial dashboards and apply financial analytics to solve business case problems.

Mapping of Course Outcomes with Program Outcomes:

CO / PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	3	3	3	1	1	1	1	1	3	1	2
CO2	3	3	3	2	1	2	1	1	3	2	2
CO3	3	3	3	1	1	1	2	1	3	1	2
CO4	3	3	3	1	1	2	2	1	3	1	2
CO5	3	3	3	3	1	2	2	2	3	2	3

Mapping of Course Outcomes with Program Specific Outcomes:

CO / PSO	PSO1	PSO2	PSO3
CO1	3	2	2
CO2	3	3	2
CO3	3	3	2
CO4	3	3	2
CO5	3	3	3

UNIT – I

Time Value of Money

Concept of time value of money; present value and future value calculations; annuities and perpetuities; loan amortization schedules; use of financial functions such as PV, FV, RATE, and PMT in spreadsheet modeling.

UNIT – II

Budgeting & Variance Analysis

Purpose and types of budgets; top-down and bottom-up budgeting approaches; preparation of operating budgets; comparison of budgeted and actual performance; variance analysis and interpretation; use of variance bridges for managerial insights.

UNIT – III

Project Evaluation (NPV / IRR)

Capital budgeting fundamentals; identification and estimation of cash flows; selection of appropriate discount rates; net present value (NPV) and internal rate of return (IRR) methods; comparison of mutually exclusive projects; limitations of NPV and IRR techniques.

UNIT – IV

Cost & Profitability Analysis

Cost concepts and classification; fixed and variable costs; contribution margin analysis; break-even analysis; product and segment profitability analysis; managerial implications of cost behavior.

UNIT – V

Financial Dashboards & Case Application Designing finance dashboards using Excel and Power BI to monitor key financial KPIs. Application of financial analytics tools to business cases involving budgeting, investment evaluation, profitability analysis, and communication of insights for managerial decision-making.

Textbooks:

1. Ross, S. A., Westerfield, R. W., & Jordan, B. D. (2022). *Fundamentals of Corporate Finance* (14th ed.). McGraw-Hill Education. ISBN: 9781260772395
2. Winston, W. L. (2019). *Microsoft Excel Data Analysis and Business Modeling* (6th ed.). Microsoft Press. ISBN: 9781509307005

Reference Books:

1. Brealey, R. A., Myers, S. C., & Allen, F. (2023). *Principles of Corporate Finance* (14th ed.). McGraw-Hill Education. ISBN: 9781264080946
2. Damodaran, A. (2014). *Applied Corporate Finance* (4th ed.). Wiley. ISBN: 9781118808931

Web Links:

1. https://onlinecourses.nptel.ac.in/
2. https://www.coursera.org/specializations/financial-management

Relevant cases have to be discussed in each unit and in examination case study is compulsory from any unit.

HR ANALYTICS AND WORKFORCE INSIGHTS

	L	T	P	C
Course Code: 2607MS07	**2**	**0**	**1**	**3**

Course Outcomes:

At the end of the Course, Student will be able to:

CO1: Define and compute key human resource metrics to evaluate workforce effectiveness.

CO2: Develop HR dashboards and reports to support monitoring and decision-making

CO3: Analyze attrition-related indicators and assess workforce risk factors.

CO4: Integrate HR data with operational metrics to derive workforce-related insights.

CO5: Analyze employee survey data using basic sentiment techniques and complete an ethical end-to-end HR analytics mini project with recommendations.

Mapping of Course Outcomes with Program Outcomes:

CO / PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	3	3	3	1	2	2	1	2	3	2	2
CO2	3	3	2	3	1	2	1	2	3	2	2
CO3	3	3	3	1	1	2	1	2	3	2	2
CO4	3	3	3	2	1	2	1	2	3	2	2
CO5	3	3	3	3	2	3	1	3	3	2	3

Mapping of Course Outcomes with Program Specific Outcomes:

CO / PSO	PSO1	PSO2	PSO3
CO1	3	3	2
CO2	3	3	3
CO3	3	3	2
CO4	3	3	2
CO5	3	3	3

UNIT – I

HR Metrics Overview

Introduction to HR analytics; role of metrics in human resource management; definition and calculation of key HR metrics such as time-to-fill, attrition rate, and absenteeism; interpretation of HR indicators for managerial decision-making.

UNIT – II

Dashboards & Reporting for HR

Purpose of dashboards in HR reporting; designing HR dashboards using Excel and Power BI; basic data modeling concepts for HR data; use of visuals, filters, and drill-through features for interactive reporting.

UNIT – III

Attrition Prediction Basics

Understanding employee attrition and its business impact; identification of attrition-related variables; use of simple indicators and scoring approaches to assess attrition risk; intuitive understanding of correlation, confounding factors, and limitations of prediction.

UNIT – IV

Operations Insights for HR

Linking HR data with operational performance; analysis of productivity, overtime, and workforce utilization; joining and comparing HR and operations datasets; development of linked KPIs to support workforce planning.

UNIT – V

Survey Analytics & HR Mini Project Employee engagement surveys, coding and basic sentiment classification of responses, and summarizing insights. End-to-end HR analytics mini project including problem definition, data preparation, analysis, visualization, ethical data handling, and recommendations.

Textbooks:

1. Mande, A., Patil, V., et al. (2021). *HR Analytics*. Himalaya Publishing House. ISBN: 9789352739592
2. Bauer, T. N., Erdogan, B., et al. (2020). *Human Resource Management: People, Data, and Analytics*. SAGE Publications. ISBN: 9781544397511

Reference Books:

1. Fitz-enz, J. (2010). *The ROI of Human Capital: Measuring the Economic Value of Employee Performance* (2nd ed.). AMACOM. ISBN: 9780814415078
2. Rasmussen, T., & Ulrich, D. (2015). *HR Analytics: Driving Return on Human Capital*. McGraw-Hill Education. ISBN: 9780071825191

Web Links:

1. https://onlinecourses.nptel.ac.in/
2. https://www.coursera.org/specializations/wharton-people-analytics

Relevant cases have to be discussed in each unit and in examination case study is compulsory from any unit.

WEB AND SOCIAL MEDIA ANALYTICS

	L	T	P	C
Course Code: 2607MS08	**2**	**0**	**1**	**3**

Course Outcomes:

At the end of the Course, Student will be able to:

CO1: Explain the foundations of digital analytics and interpret key web and social media metrics.

CO2: Access, clean, and prepare web and social media datasets for analysis.

CO3: Compute campaign funnel metrics and identify performance bottlenecks.

CO4: Apply introductory sentiment analysis techniques to digital text data.

CO5: Analyze social media engagement and network indicators, and execute an end-to-end digital analytics mini project integrating data, analysis, and reporting.

Mapping of Course Outcomes with Program Outcomes:

CO / PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	3	3	3	2	1	1	2	1	3	2	2
CO2	3	3	3	1	1	1	1	1	3	1	2
CO3	3	3	3	2	1	2	2	1	3	2	2
CO4	3	3	3	2	1	1	2	1	3	2	2
CO5	3	3	3	3	1	2	3	2	3	3	3

Mapping of Course Outcomes with Program Specific Outcomes:

CO / PSO	PSO1	PSO2	PSO3
CO1	3	2	2
CO2	3	3	3
CO3	3	3	2
CO4	3	3	3
CO5	3	3	3

UNIT – I

Digital Analytics Foundations

Introduction to digital analytics; overview of web and social media measurement; key digital metrics including sessions, users, click-through rate, and conversion; basics of tracking and tagging; understanding UTM parameters; role of analytics in digital marketing decisions.

UNIT – II

Data Access & Cleaning

Accessing web and social media datasets; data structures commonly used in digital analytics; handling identifiers and timestamps; parsing and cleaning data using Python tools; joining multiple datasets for integrated analysis.

UNIT – III

Campaign Tracking & Funnel Metrics

Concept of marketing funnels; calculation of click-through rates, conversion rates, and drop-off metrics; identifying bottlenecks in digital campaigns; introductory attribution concepts; summarizing campaign performance using spreadsheets.

UNIT – IV

Sentiment Analysis (Intro)

Introduction to text analytics for digital data; basic sentiment analysis concepts; tokenization of text; dictionary and lexicon-based sentiment approaches; interpretation of sentiment polarity in social media content.

UNIT – V

Social Media Insights & Digital Analytics Project Measurement of social media engagement and post-level performance; basic understanding of network indicators and centrality concepts; using engagement insights for content strategy. End-to-end digital analytics mini project integrating tracking data, sentiment analysis, campaign metrics, data preparation, analysis, visualization, and reporting.

Textbooks:

1. Kaushik, A. (2010). *Web Analytics 2.0: The Art of Online Accountability and Science of Customer Centricity*. Sybex (Wiley). ISBN: 9780470529393
2. Clifton, B. (2012). *Advanced Web Metrics with Google Analytics* (3rd ed.). Wiley Publishing. ISBN: 9781118168448

Reference Books:

1. Russell, M. A. (2013). *Mining the Social Web* (2nd ed.). O'Reilly Media. ISBN: 9781449367619
2. Fan, W., & Gordon, M. D. (2014). *The Power of Social Media Analytics*. Communications of the ACM, 57(6). (Scholarly reference article)

Web Links:

1. https://onlinecourses.nptel.ac.in/
2. https://www.coursera.org/learn/digital-marketing-analytics

Relevant cases have to be discussed in each unit and in examination case study is compulsory from any unit.

ABILITY ENHANCEMENT COURSES
BUSINESS COMMUNICATION

Course Code: 2605MS47	L	T	P	C
	2	0	1	3

Course Outcomes:

At the end of the Course, Student will be able to:

CO1: Explain the fundamentals of organizational communication, including models, types, channels, barriers, and the 7Cs.

CO2: Demonstrate effective written communication through various business messages, emails, and formal letters.

CO3: Apply nonverbal communication skills by interpreting body language and vocal cues to enhance message effectiveness.

CO4: Apply interpersonal and presentation skills for effective communication in teams, virtual settings, and the gig economy.

CO5: Analyze effective digital communication skills and media literacy for professional and organizational contexts.

Mapping of Course Outcomes with Program Outcomes:

CO / PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	3	2	2	1	2	1	1	1	3	2	2
CO2	3	2	2	2	2	1	1	1	3	2	2
CO3	3	3	2	2	2	2	2	2	3	2	2
CO4	3	3	3	2	2	2	2	2	3	3	2
CO5	3	3	3	2	2	3	2	3	3	3	2

Mapping of Course Outcomes with Program Specific Outcomes:

CO / PSO	PSO1	PSO2	PSO3
CO1	3	2	2
CO2	3	2	2
CO3	3	3	2
CO4	3	3	2
CO5	3	3	2

UNIT – I

Introduction to Communication in Organizations: Introduction to Business Environment and Communication, Models of communication, Basics of Communication (types, channels and barriers), 7Cs of communication.

UNIT – II

Written Communication: Planning and executing different types of messages, emails, formal letters (Planning & Layout of Business Letter) and informal messages on e-platforms, negative messages: indirect & direct negative messages.

UNIT – III

Nonverbal Communication: Body Language: Understanding the significance of posture, gestures, and facial expressions, Tone of Voice: Recognizing the impact of vocal delivery on communication effectiveness.

UNIT – IV

Interpersonal Communication: Team communication, managing communication during online meeting, communication with virtual team, communication in gig economy; Presentation skills (Verbal and non- verbal); PowerPoint presentation skills.

UNIT – V

Digital Communication: Social media and individual, social media & organizations, Media Literacy; Strong Digital communication skills – email, instant messaging, video conferencing, e-meetings, digital etiquettes & responsibilities.

Textbooks:

1. AICTE's Prescribed – Communication Skills in English, Khanna Book Publishing. 2. Lesikar,
2. R.V. & M.E. Flatley, Business Communication: Connecting in a Digital World, McGraw-Hill Education.

Reference Books:

1. Rao, M. T. (2023) Minor Hints: Lectures Delivered to H.H. the Maharaja Gaekwar, Sayaji Rao III. Gyan Publishing
2. Getting Ready for the Real World: HBR, 2020: The Science of Strong Business Writing.

Web Links:

1. https://onlinecourses.swayam2.ac.in/imb22_mg02/preview
2. https://ugcmoocs.inflibnet.ac.in/index.php/courses/view_pg/389

Relevant cases have to be discussed in each unit and in examination case study is compulsory from any unit.

FUNDAMENTAL COGNITIVE SKILLS FOR MANAGERS

	L	T	P	C
Course Code: 2605MS48	**0**	**0**	**1**	**1**

Course Outcomes:

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

CO1: Recognize the different aspects of the English language proficiency with emphasis on LSRW skills.

CO2: Apply communication skills through various language learning activities

CO3: Analyze the English speech sounds, stress, rhythm, intonation and syllable division for better listening and speaking comprehension.

CO4: Enable them to learn and apply fundamentals of English grammar concepts for improved language

CO5 Make use of various types of vocabulary in different academic and professional careers

Mapping of Course Outcomes with Program Outcomes:

COs / POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	2	2	1	-	2	-	-	1	3	3	1
CO2	2	2	1	-	2	-	-	1	3	3	1
CO3	1	1	2	-	2	-	-	1	3	2	2
CO4	2	1	2	-	2	-	-	1	2	2	1
CO5	2	1	2	-	2	-	-	1	3	2	1

Mapping of Course Outcomes with Program Specific Outcomes:

CO / PSO	PSO1	PSO2	PSO3
CO1	1	1	1
CO2	1	1	1
CO3	1	1	1
CO4	1	1	1
CO5	1	1	1

UNIT – I

Outstanding people A/B/C/D

Listening Conversation about Jocelyn Bell- Burnell, Podcast: The 30-day challenge, Starting a new job, Conversation about technology

Speaking Discussing inspiring people, Asking and answering questions about challenges, explaining a process; Checking understanding, Discussing technology.

Reading Articles: *Protector of the sea and the woman who reinvented children's TV, Interviews: 30-day challenge, Article: Tech free!*

Writing Grammar Vocabulary Article Organizing an article Review of Tenses, Questions Character adjectives, trying and succeeding

The **Pronounciation,** The letter e; Word stress, Rapid speech.

UNIT – II

Survival A/B/C/D

Listening	Conversation about a survival situation, Interview: The Tiger, Cooking for a friend, Talking about getting lost
Speaking	Telling a survival story, Giving advice; Asking questions, Giving compliments and responding, Discussing the natural environment
Reading	Article: Lost at sea, Leaflet: *How to survive…an animal attack*, Leaflet: *Be wise and survive*
Writing	Guidelines, organizing guidelines in a leaflet
Grammar	Narrative tenses, Future time clauses and conditionals
Vocabulary	Expressions with *get,* Animals and the environment
Pronunciation	Sound and Spelling: g, Intonation in question tags

UNIT – III

Talent A/B/C/D

Listening	Conversation: learning experiences, Radio Programme: The sports gene, Making wedding plans, Interviews about sport
Speaking	Talking about something you have put a lot of effort into, Discussing sport and ways to improve performance, planning a party, Talking about popular sports
Reading	Text about learning; *Learning to learn*, Article: *Born to be the best*; Three articles about athletes, Article: *Fitness: Seattle snapshot*
Writing	Article describing data
Grammar	Multi-word verbs, Present perfect and present perfect continuous
Vocabulary	Ability and achievement, word connected with sport
Pronunciation	Word stress, sound and spelling consonant sounds

UNIT – IV

Life Lessons A/B/C/D

Listening	Interview: Psychology of money; Two monologues: Life-changing events, Two monologues; training for a job, Presenting photos, Three monologues; living in different places
Speaking	Talking about how your life has changes, Discuss experiences of training and rules, Describing photos: Expressing careful disagreement, Discussing living in a different country
Reading	Two texts about life-changing events that helped people become rich, Article: *Training for the emergency frontline,* Advert for being an international student 'buddy'
Writing	Job application, Giving a positive impression
Grammar	*Used to* and *would*
Vocabulary	Cause and result, Talking about difficulty
Pronunciation	Sound and spelling: *u*

UNIT – V

Chance A/B/C/D

Listening	Monologue: What are your chances?, Conversation: Talking about work, Money problems, News reports: environmental problems

Speaking	Discussing possible future events, Role Play: job interview, Explaining and responding to an idea for a café, Giving opinions on environmental problems
Reading	Quiz: *Are you an optimist or a pessimist?; Article: Why we think we're going to have a long and happy life*, Quiz: *The unknown continent*; Article: *Cooking in Antarctica*, Essay about protecting the environment
Writing	For and against essay, Arguing for and against an idea
Grammar	Future probability, Future perfect and future continuous
Vocabulary	Adjectives describing attitude, The natural world
Pronunciation	Sound and spelling : *th*, Intonation groups

Textbook:

1. Cambridge Empower–SecondEditionB2Level-Adrian Doff, Craig Thaine, Herbert Puchta, Jeff Stranks, Peter Lewis–Jones.ISBN-10.9781107468726; ISBN- 13.978-1107468726

Suggested Software:

1. Cambridge Empower
2. SoftX(K-Van Solutions)

Reference Books:

1. MAshrafRizvi:EffectiveTechnicalCommunication.ISBN10-9352605780
2. Raymond Murphy: English Grammarin Use, Cambridge Universitty, Press. Fifth Edition, ISBN-978-1-108-45765-1

Weblinks:

1. https://www.cambridgeone.org/login
2. https://www.britishcouncil.in/english/online
3. www.englishmedialab.com

ADVANCED COGNITIVE SKILLS FOR MANAGERS

	L	T	P	C
Course Code: 2605MS49	**0**	**0**	**1**	**1**

Course Outcomes:
At the end of the course, student will be able to:

- **CO1:** Recognize the basics of communication and summarize formal and informal expressions in all aspects.
- **CO2:** Establish and maintain interpersonal relationships and transmit the message different language activities.
- **CO3:** Use language effectively to prepare and demonstrate proficiency in facing various interviews.
- **CO4:** Demonstrate and exhibit professionalism in participating in various public activities like debates, group discussions and presentation skills.
- **CO5** Identify the basic elements of writing and apply the fundamentals to composing catering to different professional needs.

Mapping of Course Outcomes with Program Outcomes:

COs / POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	3	2	2	3	3	2	2	3	3	3	3
CO2	3	3	3	3	3	3	3	3	3	3	3
CO3	2	2	2	3	3	2	3	3	3	3	2
CO4	2	3	3	3	3	2	3	3	3	3	2
CO5	2	3	3	3	3	3	3	2	3	3	2

Mapping of Course Outcomes with Program Specific Outcomes:

CO / PSO	PSO1	PSO2	PSO3
CO1	2	2	3
CO2	2	3	3
CO3	2	2	3
CO4	2	2	3
CO5	2	2	3

UNIT – I
Around the globe A/B/C/D

Listening	Two monologues about sightseeing tours, Interview: disappearing languages, Asking for a favour, conversation: a trip to the Grand Canyon
Speaking	Comparing different tourist destinations, Agreeing and disagreeing, Asking for a favour, Discussing local tourist destinations.
Reading	Website bout four tourist destinations; Website: Where to go?

Writing	Travel blog, Using descriptive language
Grammar	Infinitives and –ing forms
Vocabulary	Travel and tourism, Describing changes
Pronunciation	Consonant clusters, Consonant sounds

UNIT –II
City living A/B/C/D

Listening	Interview: 'Smart' cities: Two monologues talking about 'smart' cities, Two monologues: house renovations, Flat hunting, Interviews about a new shopping centre
Speaking	Discussing good and bad points about a city
Reading	Article: *Quick-slow down!*, Article: *Who puts the 'real' in reality* TV? Email: Complaining about an important issue.
Writing	Email of complaint, Using formal language
Grammar	*Too/enough; so/such*, Causative *have/get*
Vocabulary	Describing life in cities, Film and TV; Houses **Pronunciation** Sound and spelling: o, Stress in compound nouns

UNIT – III
Dilemmas A/B/C/D

Listening	Radio programme: person finance, Three monologues about honesty, Going to the bank, Conversation about a TV programme
Speaking	Giving opinions on financial matters, Discussing moral dilemmas, Talking about hopes and worries Discussing programmes about crime
Reading	Article: *Is it time to give up on cash?*, Newspaper article: *The honesty experiment*, Review: *Crime with a smile*
Writing	Review, Organising a review
Grammar	First and second conditionals, Third conditional; *should have+past participle*
Vocabulary	Money and finance, Crime
Pronunciation	Stressed and unstressed words; Sound and spelling: *l,* Word groups

UNIT –IV
Discoveries A/B/C/D

Listening	Conversation about inventions, Conversation about an email hoax, Finding the perfect flat, Four monologues about alternative medicine
Speaking	Talking about inventions, describing a hoax or a scam or a case of fraud, Giving and receiving surprises
Reading	Article: *Too good to be true?*, Article: *The rise and fall of Barry Minkow,* Essay: *The Value of alternative medicine*
Writing	Opinion essay, Presenting a series of arguments **Grammar** Relative clauses, Reported speech;

Reporting verbs **Vocabulary** Health, Verbs describing thought and knowledge **Pronunciation** Sound and spelling : *ui*, Linking and intrusion

UNIT – V

Possibilities A/B/C/D

Listening	Interview about Dan Cooper, Two monologues: pursuing a dream, Celebrating good news, conversation about goals
Speaking	Telling stories about coincidences, Describing and comparing brave or amazing people, Telling an important piece of news, Talking about performing
Reading	Story: The man who disappeared; Blog: *The Wreck of the Titan*, Article: *Dream to help*, Story: Rosa's diary: *The ultimate goal*
Writing	Story, Making a story interesting
Grammar	Past modals of deduction, Wishes and regrets **Vocabulary** Adjectives with prefixes, Verbs of effort **Pronunciation** Word stress, Linking, Consonant clusters

Text Book:

1. Adrian Doff, Craig Thaine, Herbert Puchta, Jeff Stranks, Peter Lewis – Jones, Cambridge Empower– Second Edition, B2Level- ISBN-9789357260022.

Suggested Softwares:

1. Cambridge Empower
2. SoftX(K-Van Solutions)

Reference Books:

Bernard Widrow & Edward P. Katz, Cognitive Memory (2025), Springer,ISBN-13: 978- 3031809392

Weblinks:

1. https://www.cambridgeone.org/login
2. https://www.coursera.org/
3. https://www.skillshare.com/
4. https://www.mindtools.com/cawh8bu/communication-tools

EMPLOYABILITY SKILLS- V

	L	T	P	C
Course Code: 2605MS50	**0**	**0**	**1**	**1**

Course Outcomes:

At the end of the Course, Student will be able to:

- **CO1:** Apply principles of permutations, combinations, probability, and logarithms to solve quantitative aptitude problems.
- **CO2:** Interpret and analyze data from charts, graphs, and statistical tables for decision-making and accuracy.
- **CO3:** Evaluate logical reasoning statements involving arguments, assumptions, conclusions, and data sufficiency.
- **CO4:** Solve puzzle and eligibility test problems using analytical and critical thinking skills.
- **CO5:** Demonstrate effective interpersonal, communication, and time management skills for successful personal and professional interactions.

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Mapping of Course Outcomes with Program Outcomes:

COs / POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	3	2	–	–	–	–	–	–	–	–	2
CO2	2	3	2	–	–	–	–	–	2	–	2
CO3	–	3	3	–	2	–	–	–	–	–	2
CO4	–	2	3	–	–	–	–	–	–	–	2
CO5	–	–	–	3	2	3	2	3	2	3	3

Mapping of Course Outcomes with Program Specific Outcomes:

CO \ PSO	PSO1	PSO2	PSO3
CO1	2	2	–
CO2	2	3	–
CO3	–	2	3
CO4	–	2	2
CO5	–	–	3

Aptitude:

Permutations and Combinations, Probability, Data Interpretation, Logarithms, Statistics

Reasoning:

Puzzle Tests, Eligibility Test, Data Sufficiency, Statements – Arguments, Statements – Assumptions, Statements - Course of Action, Statements - Conclusions

Verbal:

Interview skills, Grammar in use, Interpersonal Skills, Negotiation Skills, Social Skills, Problem-Solving Skills, Time Management Skills

TextBooks:

1. Dr.R.S.Aggarwal, Quantitative Aptitude, SCHAND.
2. Dr.R.S.Aggarwal, A Modern Approach to Verbal and Non-Verbal Reasoning
3. Dr.R.S.Aggarwal , QuickLearningObjectiveGeneralEnglish, SCHAND.

Reference Books:

1. AbhijitGuha, Quantitative Aptitude, McGraw-Hill Publications.
2. Jaikishan and Premkishan, Analytical Reasoning, Arihant Publications.
3. R.S.Dhillon, A New Approach to Objective English–DGP Publications.

Web Links:

1. www.indiabix.com
2. www.bankersadda.com

MULTI-DISCIPLINARY COURSES
BUSINESS STATISTICS AND LOGIC

	L	T	P	C
Course Code: 2605MS52	**2**	**1**	**0**	**3**

Course Outcomes:

At the end of the Course, Student will be able to:

- **CO1:** Classify different types of data and variables used in business statistics and explain their relevance in managerial decision-making.
- **CO2:** Compute and interpret measures of central tendency and variability for business data analysis.
- **CO3:** Apply probability laws and common probability distributions (Binomial, Poisson, Uniform, Normal) to solve business-related problems.
- **CO4:** Formulate and solve basic linear programming problems using graphical and simplex methods.
- **CO5:** Apply logical reasoning and quantitative aptitude techniques to analyze and solve structured business problems.

Mapping of Course Outcomes with Program Outcomes:

CO / PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	2	2	2	1	-	-	-	-	2	-	1
CO2	2	3	3	1	-	-	-	-	3	-	1
CO3	2	3	3	1	-	-	-	-	3	-	1
CO4	2	3	3	1	-	1	1	-	3	1	1
CO5	2	3	3	1	-	1	1	-	3	1	1

Mapping of Course Outcomes with Program Specific Outcomes:

CO / PSO	PSO1	PSO2	PSO3
CO1	2	2	1
CO2	3	3	2
CO3	3	3	2
CO4	3	3	3
CO5	3	3	3

UNIT – I

Introduction to Business Statistics: Statistics in Business, Types of data – Nominal, Ordinal, Interval, Ratio. Types of variables.

UNIT – II

Descriptive Statistics: Measure of central tendency, Measure of variability – Range, interquartile range, standard deviation, variance, coefficient of variation.

UNIT – III

Introduction to Probability: Definition, Basic concepts of Probability, Theories of probability,

Laws of probability, Inverse Probability. Revision of probability: BAYES' RULE, Discrete distribution – Binomial, Poisson, Continuous distribution – Uniform, normal.

UNIT – IV

Introduction to Linear Programming Problems (LP): LP Formulations – Graphical Solution – Simplex Method

UNIT – V

An Introduction to Logic: Number series, coding decoding and odd man out series, direction sense test, seating arrangements – linear and circular, blood relations, arithmetic and geometric progressions, Inductive and deductive reasoning.

Textbooks:

1. Richard I. Levin & David S. Rubin, Statistics for Management (2012) Pearson Education, 7th Edition, ISBN: 9780134762920
2. S.P. Gupta, Business Statistics (2021), Sultan Chand & Sons, Revised Edition, ISBN: 97893516111066

Reference Books:

1. Paul Newbold, William Carlson, Betty Thorne, Statistics for Business and Economics (2020) Pearson, 9th Edition, ISBN: 9781292315034
2. Robert stine and Dean foster, Statistics for business: Decision making and Analysis (2017) Pearson, 3rd Edition ISBN: 9780134497167

Web Links:

1. https://archive.nptel.ac.in/courses/110/107/110107114/
2. https://archive.nptel.ac.in/noc/courses/noc21/SEM1/noc21-mg07/

Relevant cases have to be discussed in each unit and in examination case study is compulsory from any unit.

MEDIA LITERACY AND CRITICAL THINKING

	L	T	P	C
Course Code: 2605MS53	**2**	**0**	**1**	**3**

Course Outcomes:

At the end of the Course, Student will be able to:

- **CO1:** Explain the notions of media, media literacy, main media types and formats
- **CO2:** Identify the benefits and drawbacks of traditional and new media
- **CO3:** Estimate the role and strategies of the media market players
- **CO4:** Analyze the impact of different types of media content and narratives
- **CO5:** Evaluate multimedia messages based on journalistic standards.

Mapping of Course Outcomes with Program Outcomes:

CO / PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	2	2	2	1	2	1	1	2	2	2	2
CO2	2	2	2	1	2	1	2	2	2	2	2
CO3	2	2	3	2	3	1	2	2	2	2	2
CO4	2	3	3	2	3	1	2	3	2	3	2
CO5	2	3	3	2	3	1	2	2	2	3	3

Mapping of Course Outcomes with Program Specific Outcomes:

CO / PSO	PSO1	PSO2	PSO3
CO1	2	1	2
CO2	2	1	2
CO3	2	1	2
CO4	2	2	3
CO5	2	2	3

UNIT – I

Introduction to Media: The notions of media and media literacy, History of media evolution, Forms and formats of media

UNIT – II

Traditional vs New media: Role and functions of Traditional and New Media, Social Media Platforms, Access to information

UNIT – III

Media Market Game: Rules and players- Media market players, Ownership and control of mass media market, Journalistic standards

UNIT – IV

Media content: Types and Narratives: The notion and types of media content, The notion and modes of narrative, Media narrative power

UNIT – V

Multimedia content: Types and Technologies: Multimedia terms and features, Multimedia formats and components, Multimedia messages

Textbooks:

1. Chris Sperry & Cyndy Scheibe, Teaching Students to Decode the World: Media Literacy and Critical Thinking Across the Curriculum (February 2022), ASCD BN-13: 978-1416630937.
2. McQuail D. McQuail′s Mass Communication Theory. 6th Edition. Sage Publications. ISBN-10:1849202923, ISBN-13: 978-1849202923

Reference Books:

1. Potter, W.J. Media Literacy, SAGE Publishing, 2021. 10th edition, 504 p. ISBN-10:1071814451, ISBN-13:978-1071814451
2. Nick Pernisco, Media Literacy: An Essential Guide to Critical Thinking Skills for Our Complex Digital World (July 29, 2020), Independently published ISBN-13: 978-1087896304.

Web Links:

1. https://onlinecourses.nptel.ac.in/noc23_hs83/preview
2. https://www.coursera.org/learn/media-literacy

Relevant cases have to be discussed in each unit and in examination case study is compulsory from any unit

BANKING THEORY AND PRACTICE

	L	T	P	C
Course Code: 2605MS54	**2**	**0**	**1**	**3**

Course Outcomes:

At the end of the Course, Student will be able to:

CO1: Outline the basic concepts of banking

CO2: Classify the different banking systems

CO3: Identify various types of bank accounts

CO4: Analyze the banker customer relationship

CO5: Develop the different E banking initiatives

Mapping of Course Outcomes with Program Outcomes:

CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	3	2	2	1	1	2	1	1	2	1	2
CO2	3	3	2	1	1	1	2	1	2	2	2
CO3	3	2	2	1	2	1	1	1	2	1	2
CO4	3	3	3	2	2	2	1	1	2	2	2
CO5	2	2	2	1	1	1	2	1	3	2	2

Mapping of Course Outcomes with Program Specific Outcomes:

CO/PSO	PSO1	PSO2	PSO3
CO1	3	2	2
CO2	3	2	2
CO3	3	3	2
CO4	3	3	2
CO5	2	3	3

UNIT – I

Introduction to Banking: History of Banking- Indian Banking System-Phases of development-Banking structure in India- Commercial Banking; Definition-Classification of banks. Commercial Banking functions-Role of Banks in Economic Development. Central Banking-Definition –Need, Principles, Functions of Central bank.

UNIT – II

Banking Systems: Unit banking, branch banking, Investment banking - innovations in banking - online and offshore banking, RTGS, NEFT. NBFC- Role of NBFC, RBI Regulations-Financial sector reforms-Sukhmoy committee 1985-Narasimham committee I and II-Prudential norms: capital adequacy norms-classification of assets and provisioning.

UNIT – III

Bank Account: Opening – Types of Accounts-FDR-Steps in opening Account-Saving vs Current Account- Passbook-Bank Customer Relationship-Special Types of currents-KYC norms. Bank Lending –Lending Sources-Bank Lending Principles-Forms of lending-Loan evaluation process-securities of lending-Factors influencing bank lending

UNIT – IV

Banker and Customer Relationship: Banker and Customer - Relationship - Special features - Opening and closing of accounts - Different types of accounts – Forms used in the operation of bank account - Cheque book, Pass book, Mistakes in the pass book - Special types of account holders.

UNIT – V

E Banking: Meaning, Services, e-banking and financial services-Initiatives-Opportunities-Internet banking Meaning-Internet banking Vs Traditional Banking-Services-Drawbacks Frauds in Internet banking. Mobile banking–Anywhere Banking-Any Time Banking-Electronic Mobile Wallets. ATM Evolution -Concept-Features - Types-. Electronic money-Meaning-Categories-Merits of e-money Electronic Funds Transfer (EFT)system - Meaning-Steps–Benefits

Textbooks:

1. Banking Theory: Law & Practice: K P M Sundram and V L Varsheney, Sultan Chand &Sons.ISBN-10. 9351611493; ISBN-13. 978-9351611493
2. Banking Theory, Law and Practice: B. Santhanam; Margam Publications. ISBN-13: 978-9381430774 ISBN-10: 9381430772.

Reference Books:

1. Banking Theory and Practice, Jagroop Singh, Kalyani Publishers. ISBN 10: 9327267265 ISBN 13: 9789327267266.
2. Banking Theory and Practice, Seven Hills International Publishers, Hyderabad.ISBN-10. 932596905X; ISBN-13. 978-9325969056

Web Links:

1. https://financialservices.gov.in/beta/en/banking-overview
2. https://rbi.org.in/Scripts/bs_viewcontent.aspx?Id=159

Relevant cases have to be discussed in each unit and in examination case study is compulsory from any unit.

VALUE ADDED COURSES
ENVIRONMENTAL SCIENCE AND SUSTAINABILITY

	L	T	P	C
Course Code: 2605MS55	**2**	**0**	**1**	**3**

Course Outcomes:
At the end of the Course, Student will be able to:

CO1: Explain the functions of environment, ecosystems and biodiversity and their conservation.
CO2: Identify the causes, effects of environmental pollution and natural disasters and contribute to the preventive measures in the society.
CO3: Apply the understanding of renewable and non-renewable resources and contribute to the sustainable measures to preserve them for future generations.
CO4: Describe various environmental acts
CO5: Recognize the different goals of sustainable development and apply them for suitable technological advancement and societal development.

Mapping of Course Outcomes with Program Outcomes:

CO / PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	1	1	1	–	2	–	–	3	–	–	1
CO2	1	2	2	–	3	1	1	3	–	–	1
CO3	1	2	2	–	2	1	3	3	2	–	1
CO4	–	1	1	–	3	1	–	2	–	–	–
CO5	1	2	2	1	3	2	2	3	2	1	2

Mapping of Course Outcomes with Program Specific Outcomes:

CO / PSO	PSO1	PSO2	PSO3
CO1	1	-	2
CO2	1	2	2
CO3	2	2	3
CO4	1	1	2
CO5	2	2	3

UNIT – I

Environment and Biodiversity: Definition, scope and importance of environment – need for public awareness. Eco-system and Energy flow– ecological succession. Types of biodiversity.

UNIT – II

Environmental Pollution: Causes, Effects and Preventive measures of Water, Soil, Air and Noise Pollutions. Solid, Hazardous and E-Waste management, Environmental protection acts.

UNIT – III

Renewable Sources of Energy: Energy management and conservation, New Energy Sources: Need of new sources. Different types new energy sources.

UNIT – IV

Environmental Acts: The Water (Prevention and Control of Pollution) Act, 1974-The Air (Prevention and Control of Pollution) Act, 1981-The Environment (Protection) Act, 1986 Objectives.

UNIT – V

Sustainability Practices: Zero waste and R concept, Circular economy, ISO 14000 Series, Material Life cycle assessment, Environmental Impact Assessment.

Textbooks:

1. Benny Joseph, _Environmental Science and Engineering ‘, Tata McGraw-Hill, New Delhi.ISBN-10:9387432351, ISBN-13: 978-9387432352.
2. Anubha Kaushik and C. P. Kaushik‘s ―Perspectives in Environmental Studies‖, 6th Edition, New Age International Publishers.ISBN-10:9789386418630, ISBN-13:978-9386418630.

Reference Books:

1. R.K. Trivedi, _Handbook of Environmental Laws, Rules, Guidelines, Compliances and Standards, Vol. I and II, Enviro Media. ISBN-10: 8178002213, ISBN-13:978-8178002217.
2. Cunningham, W.P. Cooper, T.H. Gorhani, _Environmental Encyclopedia, Jaico Publ., House, Mumbai. ISBN-10:8172247869, ISBN-13: 978-8172247867.

Web Links:

1. https://onlinecourses.nptel.ac.in/noc23_hs155/preview
2. https://onlinecourses.swayam2.ac.in/nou20_ag12/preview

Relevant cases have to be discussed in each unit, and in examination, case study is compulsory from any unit.

SKILL ENHANCEMENT COURSES
EMERGING TECHNOLOGIES AND APPLICATION

	L	T	P	C
Course Code: 2605MS57	**2**	**0**	**1**	**3**

Course Outcomes:

At the end of the Course, Student will be able to:

- **CO1:** Identify different emerging technologies
- **CO2:** Explain the Basics of data science.
- **CO3:** Identify fundamentals of Artificial Intelligence
- **CO4:** Assess the latest developments in the area of technology to support business
- **CO5:** Analyze the basic concepts of AR & VR

Mapping of Course Outcomes with Program Outcomes:

CO / PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	2	2	1	2	2	2	3	2	1	3	3
CO2	2	3	2	2	1	2	3	1	2	3	3
CO3	2	3	2	2	1	2	3	1	2	3	3
CO4	3	3	3	3	2	3	3	2	2	3	3
CO5	2	2	2	2	2	2	3	1	2	3	3

Mapping of Course Outcomes with Program Specific Outcomes:

CO / PSO	PSO1	PSO2	PSO3
CO1	2	2	3
CO2	2	2	3
CO3	2	2	3
CO4	3	2	3
CO5	2	2	3

UNIT – I

Cloud Computing: Cloud models (IaaS, PaaS, SaaS), Deployment models (public, private, hybrid), Cloud-based solutions, Cost-benefit analysis, Security, Data compliance, Governance frameworks

UNIT – II

Internet of Things (IoT): Sensor technologies, IoT applications (smart cities, infrastructure, industrial), Data processing, Real-time analytics, Impact on business models, Production and supply chain transformation.

UNIT – III

Industry 4.0: Concept of Industry 4.0, Smart manufacturing, Cyber-physical systems, Robotics, Business process optimization, Impact on production and supply chains.

UNIT – IV

Blockchain Technology: Blockchain fundamentals, Decentralized ledger, Cryptography, Smart contracts, Financial services, Security, Privacy, Regulatory challenges.

UNIT – V

AR/VR: AR/VR concepts, Applications in marketing and training, Immersive technologies, Challenges and opportunities, Technological advancements, Integration in business processes.

Textbooks:

1. Mohamed Anis Bach Tobji, Rim Jallouli, Yamen Koubaa, Anton Nijholt, Digital Economy. Emerging Technologies and Business Innovation, ISBN 10:9783319977485, ISBN-13:978-3319977485.
2. Timothy Jung, M. Claudia tom Dieck, Augmented Reality and Virtual Reality: Empowering Human, Place and Business, (2019). ISBN-10: 3319877038, ISBN-13: 978-3319877037

Reference Books:

1. Paul Mealy, Virtual & Augmented Reality for Dummies. ISBN-13:9978-1119481348.
2. Dr. Sanjay Sharma, Emerging Technology (2022), ISBN: 9789392549151.

Web Links:

1. https://nptel.ac.in/courses/106105166
2. https://onlinecourses.nptel.ac.in/noc22_cs53/preview

Relevant cases have to be discussed in each unit and in examination case study is compulsory from any unit.

DESIGN THINKING AND INNOVATION

	L	T	P	C
Course Code: 2605MS58	**2**	**0**	**1**	**3**

Course Outcomes:

At the end of the Course, Student will be able to:

- **CO1:** Explain the core concepts and historical evolution of Design Thinking.
- **CO2:** Apply empathy research methods to gather user insights and create problem statements and journey maps.
- **CO3:** Analyze ideation techniques and develop prototypes using various tools.
- **CO4:** Evaluate user feedback and implement iterative design improvements.
- **CO5:** Examine the principles and processes of innovation and differentiate between types of innovation.

Mapping of Course Outcomes with Program Outcomes:

CO / PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	3	2	2	2	2	2	2	1	1	2	1
CO2	2	3	2	2	2	2	3	2	3	2	1
CO3	2	3	2	3	2	3	3	2	3	2	1
CO4	2	2	2	2	2	3	2	1	2	2	1
CO5	3	2	3	2	2	2	3	2	2	2	1

Mapping of Course Outcomes with Program Specific Outcomes:

CO / PSO	PSO1	PSO2	PSO3
CO1	2	2	2
CO2	2	2	3
CO3	2	2	3
CO4	2	2	2
CO5	2	2	3

UNIT – I

Introduction to Design Thinking: Covers innovation, creative thinking, problem-solving approaches, and the Design Thinking process—Empathize, Define, Ideate, Prototype, and Implement— using examples like Apple, Netflix, and Airbnb.

UNIT – II

Empathy and Problem Understanding: Focuses on developing empathy using design tools, observing users, understanding uniqueness, and identifying complex "wicked problems" around us.

UNIT – III

Ideation and Defining Solutions: Introduces brainstorming, systems thinking, and mapping customer experiences to generate creative solutions to defined problems.

UNIT – IV

Prototyping and Implementation: Covers rapid prototyping, testing ideas, and planning implementation, with emphasis on converting ideas into practical solutions

UNIT – V

Feedback and Redesign: Focuses on gathering user feedback, improving design based on experience, and presenting final innovative solutions.

Textbooks:

1. Gavin Ambrose, Paul Harris, Basics Design - 8: Design Thinking, illustrated, reprint, AVA Publishing, ISBN-10:2940411174, ISBN-13: 978-2940411177.
2. Christian Müller-Roterberg, Handbook of Design Thinking, Kindle Direct Publishing, ISBN: 978-1790435371.

Reference Books:

1. C S G Krishnamacharyulu & Lalitha R, Innovation Management, Himalaya Publishing House.ISBN-10:9350979209, ISBN-13: 978-9350979204.
2. Vinnie Jauhari, Sudanshu Bhushan, Innovation Management, Oxford Higher Education.ISBN-10: 0198080980, ISBN-13: 978-0198080985.

Web Links:

1. https://onlinecourses.nptel.ac.in/noc22_mg32/preview
2. https://onlinecourses.swayam2.ac.in/imb23_mg65/preview

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Relevant cases have to be discussed in each unit and in examination case study is compulsory from any unit.

IT & AI SKILLS

	L	T	P	C
Course Code: 2605MS65	**2**	**0**	**1**	**3**

Course Outcomes:

At the end of the Course, Student will be able to:

- **CO1:** Explain the fundamentals of computers and their applications in business.
- **CO2:** Build and format professional documents using MS Word.
- **CO3:** Design and present impactful business presentations in MS PowerPoint.
- **CO4:** Integrate and apply AI tools across MS Excel applications
- **CO5** Analyze and visualize business data using MS Excel's functions.

Mapping of Course Outcomes with Program Outcomes:

CO / PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	3	1	1	–	1	–	–	1	3	–	2
CO2	2	1	1	2	1	–	–	–	3	–	2
CO3	2	1	1	3	1	1	–	–	3	2	2
CO4	2	2	2	1	1	–	1	–	3	1	3
CO5	2	3	3	1	1	–	1	–	3	1	3

Mapping of Course Outcomes with Program Specific Outcomes:

CO / PSO	PSO1	PSO2	PSO3
CO1	1	1	2
CO2	1	1	2
CO3	1	1	2
CO4	2	2	3
CO5	2	3	3

UNIT – I

Introduction to Computers: Definition, Components, Types; generations of computer; Computer Memory, Software and Hardware, Operating Systems. Window features. Introduction to Internet- benefit and limitation, IP address, Browser, E-mail.

UNIT – II

MS Word: Interface and Navigation**:** Document Formatting, Text Formatting, Paragraph Formatting, Advanced Features, Tables, Charts, and SmartArt, Mail Merge; AI Tools for MS Word.

UNIT – III

MS PowerPoint: Interface and Navigation; Slide Design and Layout, Adding and Formatting Text, Using Themes and Templates, Multimedia in Presentations, Presentation Tools, Slide Master and Custom Layouts, Slide Show Setup and Presentation Delivery; AI Tools for MS PowerPoint.

UNIT – IV

MS Excel: Interface and Navigation, Creating, Saving, and, Opening Workbooks, Basic Spreadsheet Operations, Entering and Formatting Data, Basic Formulas and Functions, Sorting and Filtering Data, Data Visualization, Creating and Customizing Charts, Conditional Formatting; AI Tools for MS Excel.

UNIT – V

Advanced Excel: Lookup Functions: VLOOKUP, HLOOKUP, and XLOOKUP; Logical Functions: IF, AND, OR; Text Functions: CONCATENATE, LEFT, RIGHT; Date and Time **Functions:** DATE, TODAY, NETWORKDAYS.

Data Analysis and Visualization: PivotTables-Creating and analyzing data with PivotTables; Charts and Graphs: Designing and customizing basic charts; Conditional Formatting: Applying rules to highlight key data points.

Data Cleaning Techniques: Using Text to Columns and Remove Duplicates; Data Validation: Setting up rules to ensure data accuracy; Importing Data: Importing data from external sources like CSV and databases.

Textbooks:

1. Dr.R.S.Aggarwal , Quantitative Aptitude, SCHAND.
2. Dr.R.S.Aggarwal, A Modern Approach to Verbal and Non-Verbal Reasoning
3. Dr.R.S.Aggarwal, QuickLearningObjectiveGeneralEnglish, SCHAND.

Reference Books:

1. AbhijitGuha, Quantitative Aptitude, McGraw-Hill Publications.
2. Jaikishan and Premkishan, Analytical Reasoning, Arihant Publications.
3. R.S.Dhillon, A New Approach to Objective English–DGPPublications.

Web Links:

1. www.indiabix.com
2. www.bankersadda.com

Relevant cases have to be discussed in each unit and in examination case study is compulsory from any unit

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MANDATORY COURSES
EMPLOYABILITY SKILLS -1

	L	T	P	C
Course Code: 2605MS61	**0**	**0**	**1**	**0**

Course Outcomes:
At the end of the Course, Student will be able to:

CO1: Apply fundamental arithmetic concepts such as number systems, LCM & HCF, ratio & proportion, and averages to solve quantitative problems efficiently.

CO2: Analyze number and letter series to identify logical patterns and predict subsequent elements.

CO3: Select the option by evaluating relationships in analogy-based problems and detecting inconsistencies in logical sequences

CO4: Demonstrate effective verbal communication skills by using appropriate parts of speech and tone in various interpersonal and professional contexts.

Mapping of Course Outcomes with Program Outcomes:

CO / PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	3	2	–	–	–	–	–	–	–	–	2
CO2	–	3	2	–	–	–	–	–	–	–	2
CO3	–	3	3	–	1	–	–	–	–	–	2
CO4	–	–	–	3	–	2	–	2	–	3	2
CO5	3	2	–	–	–	–	–	–	–	–	2

Mapping of Course Outcomes with Program Specific Outcomes:

CO / PSO	PSO1	PSO2	PSO3
CO1	2	2	–
CO2	2	3	–
CO3	–	2	3
CO4	–	–	3
CO5	2	2	–

Aptitude:
Number System, LCM & HCF, Ratio and Proportion, Averages

Reasoning:
Number Series, Letter Series, Number Analogy, Letter Analogy, Odd Man Out, Logical Sequence of Words.

Verbal:
Introduction to soft skills, how to improve communication? Parts of Speech,

Mind your language towards better English, Vocabulary Expansion

Textbooks:

1. Dr. R. S. Aggarwal, Quantitative Aptitude for Competitive Examinations, S. Chand Publishing, ISBN: 978-9352534029
2. Dr. R. S. Aggarwal, A Modern Approach to Verbal and Non-Verbal Reasoning, S. Chand Publishing, ISBN: 978-9352832163

Reference Books:

1. Dr. R. S. Aggarwal, Vikas Aggarwal, Quick Learning Objective General English, S. Chand Publishing, ISBN: 978-9352837564
2. Abhijit Guha, Quantitative Aptitude for Competitive Examinations, McGraw Hill Education, ISBN: 978-9353160180
3. M. K. Pandey, Analytical Reasoning, Arihant Publications, ISBN: 978- 9350947982

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EMPLOYABILITY SKILLS-II

	L	T	P	C
Course Code: 2605MS62	**0**	**0**	**1**	**0**

Course Outcomes:
At the end of the Course, Student will be able to:

CO1: Apply percentage, profit & loss, and partnership concepts to solve real-world quantitative problems.

CO2: Analyze age-related problems to develop logical problem-solving strategies.

CO3: Evaluate logical reasoning questions including ranking, directions, and alphabet tests for accurate decision-making.

CO4: Solve pattern-based problems in coding and decoding to enhance analytical skills.

CO5: Demonstrate effective written communication using correct grammar and structured presentation techniques

Mapping of Course Outcomes with Program Outcomes:

CO / PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	3	2	–	–	–	–	–	–	–	–	2
CO2	–	3	2	–	–	–	–	–	–	–	2
CO3	–	3	3	–	1	–	–	–	–	–	2
CO4	–	2	3	–	–	–	–	–	–	–	2
CO5	–	–	–	3	–	2	–	2	–	3	2

Mapping of Course Outcomes with Program Specific Outcomes:

CO / PSO	PSO1	PSO2	PSO3
CO1	2	2	–
CO2	2	3	–
CO3	–	2	3
CO4	–	2	2
CO5	–	–	3

Aptitude:
Problems on Ages, Partnership, Percentages, Profit and Loss

Reasoning:
Coding and Decoding, Ranking Test, Alphabet Test, Direction Test

Verbal:
Written communication skill practice, Grammatical use, Concept of 4 step method for presentation, Present Tense

Textbooks:

1. Dr. R. S. Aggarwal, Quantitative Aptitude for Competitive Examinations, S. Chand Publishing, ISBN: 978-9352534029
2. Dr. R. S. Aggarwal, A Modern Approach to Verbal and Non-Verbal Reasoning, Publication: S. Chand Publishing, ISBN: 978-9352832163

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2. Abhijit Guha, Quantitative Aptitude for Competitive Examinations, McGraw Hill Education, ISBN: 978-9353160180
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EMPLOYABILITY SKILLS-III

	L	T	P	C
Course Code: 2605MS63	**0**	**0**	**1**	**0**

Course Outcomes:
At the end of the Course, Student will be able to:

CO1: Solve financial and quantitative aptitude problems using concepts of simple and compound interest.

CO2: Apply logical time-work frameworks to solve real-time problems related to work efficiency and pipe systems.

CO3: Analyze and interpret problems related to blood relations, clocks, calendars, and coded inequalities.

CO4: Evaluate spatial and logical reasoning through cubes, dice, and symbolic interpretation problems.

CO5: Demonstrate effective communication using correct grammar, and participate actively in discussions and comprehension activities.

Mapping of Course Outcomes with Program Outcomes:

CO / PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	3	2	–	–	–	–	–	–	–	–	2
CO2	2	3	2	–	–	–	–	–	–	–	2
CO3	–	3	3	–	1	–	–	–	–	–	2
CO4	–	2	3	–	–	–	–	–	–	–	2
CO5	–	–	–	3	–	2	–	2	–	3	2

Mapping of Course Outcomes with Program Specific Outcomes:

CO / PSO	PSO1	PSO2	PSO3
CO1	2	2	–
CO2	2	3	–
CO3	–	2	3
CO4	–	2	2
CO5	–	–	3

Aptitude:
Simple Interest, Compound Interest, Time and Work, Pipes and Cisterns

Reasoning:
Blood Relations, Calendar, Clocks, Cubes and Dice, Coded Inequalities

Verbal:
Grammar in use, Group discussion, Reading Comprehension, Past Tense, Future Tense

Textbooks:

1. Dr. R. S. Aggarwal, Quantitative Aptitude for Competitive Examinations , S. Chand Publishing, ISBN: 978-935253402
2. Dr. R. S. Aggarwal, A Modern Approach to Verbal and Non-Verbal Reasoning, S. Chand Publishing, ISBN: 978-9352832163

Reference Books:

1. Dr. R. S. Aggarwal, Vikas Aggarwal, Quick Learning Objective General English ,S. Chand Publishing, ISBN: 978-9352837564
2. Abhijit Guha, Quantitative Aptitude for Competitive Examinations, McGraw Hill Education, ISBN: 978-9353160180
3. M. K. Pandey, Analytical Reasoning Arihant Publications, ISBN: 978-9350947982

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EMPLOYABILITY SKILLS-IV

	L	T	P	C
Course Code: 2605MS64	**0**	**0**	**1**	**0**

Course Outcomes:

At the end of the Course, Student will be able to:

CO1: Apply concepts of time, speed, distance, trains, boats and streams to solve motion-related aptitude problems.

CO2: Solve mensuration problems involving surface area and volume in real-world contexts.

CO3: Analyze logical reasoning questions involving Venn diagrams and syllogisms to make valid conclusions.

CO4: Analyze logical reasoning questions involving Venn diagrams and syllogisms to make valid conclusions.

CO5: Interpret seating arrangements and solve non-verbal reasoning questions involving patterns and spatial reasoning.

Mapping of Course Outcomes with Program Outcomes:

CO / PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	3	2	–	–	–	–	–	–	–	–	2
CO2	3	2	–	–	–	–	–	–	–	–	2
CO3	–	3	3	–	1	–	–	–	–	–	2
CO4	–	2	3	–	–	–	–	–	–	–	2

Mapping of Course Outcomes with Program Specific Outcomes:

CO / PSO	PSO1	PSO2	PSO3
CO1	2	2	–
CO2	2	2	–
CO3	–	2	3
CO4	–	2	2

Aptitude:

Time, Speed and Distance, Problems on Trains, Boats and Streams, Mensuration-I, Mensuration – II

Reasoning:

Venn Diagrams, Syllogisms, Non - Verbal Reasoning, Seating Arrangement

Verbal:

Grammatical use, Self-introduction, Letters, E-Mail & Report writing, Error correction, Effective Communication

Textbooks:

1. Dr. R. S. Aggarwal, Quantitative Aptitude for Competitive Examinations , S. Chand Publishing, ISBN: 978-935253402
2. Dr. R. S. Aggarwal, A Modern Approach to Verbal and Non-Verbal Reasoning, S. Chand Publishing, ISBN: 978-9352832163

Reference Books:

1. Dr. R. S. Aggarwal, Vikas Aggarwal, Quick Learning Objective General English ,S. Chand Publishing, ISBN: 978-9352837564
2. Abhijit Guha, Quantitative Aptitude for Competitive Examinations, McGraw Hill Education, ISBN: 978-9353160180
3. M. K. Pandey, Analytical Reasoning Arihant Publications, ISBN: 978-9350947982

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