

**DHANALAKSHMI SRINIVASAN
INSTITUTE OF RESEARCH AND TECHNOLOGY**

(Deemed to be University under section 3 of UGC Act, 1956.)
PERAMBALUR – 621 212, TAMIL NADU, INDIA.

SCHOOL OF ARTS AND SCIENCE

CURRICULUM AND SYLLABUS

M.COM CA

REGULATION 2026

SCHOOL OF ARTS AND SCIENCE

M.COM CA PROGRAMME:

Vision:

"To develop globally competent professionals integrating advanced commerce expertise with digital technologies."

Mission:

- To provide advanced knowledge in commerce, accounting and computer applications.
- To strengthen analytical, technical and research capabilities.
- To foster innovation and technology-driven business solutions.
- To cultivate ethics, professionalism and lifelong learning

PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

PEO	PROGRAM EDUCATIONAL OBJECTIVES
PEO1	Core Knowledge & Design: Graduates will apply advanced commerce and computing knowledge to organizational challenges.
PEO2	Adaptation to New Technologies: Graduates will adapt to emerging digital technologies and business transformation initiatives.
PEO3	Technical Excellence & Ethics: Graduates will demonstrate technical excellence, research capability and ethical professionalism.
PEO4	Higher Studies, Start-ups & Contribution: Graduates will pursue doctoral studies, entrepreneurial ventures and industry contributions.

PROGRAM SPECIFIC OUTCOMES(PSOs)

PSO	PROGRAM SPECIFIC OUTCOMES
PSO1	Core Competency & Solution Design: Apply advanced commerce concepts and computing techniques to design business solutions.
PSO2	Modern Tool Usage: Apply modern software, analytics and digital technologies for organizational effectiveness.

PROGRAM OUTCOMES (Pos)

PO	PROGRAM OUTCOMES
PO1	Disciplinary Knowledge Demonstrate comprehensive knowledge and understanding of the fundamental concepts, theories, principles, and applications in the chosen discipline and allied fields.
PO2	Critical Thinking and Problem Solving Identify, analyze, and solve complex academic, professional, and societal problems using logical reasoning, analytical skills, and evidence-based approaches.
PO3	Research and Inquiry Apply scientific methods, research techniques, and investigative skills to conduct studies, analyze data, interpret results, and draw meaningful conclusions.

PO4	Creativity and Innovation Develop innovative ideas, creative solutions, and entrepreneurial approaches to address contemporary challenges in academic, professional, and social contexts.
PO5	Digital and Technological Competence Utilize appropriate digital technologies, software tools, and information resources effectively and ethically for learning, research, communication, and problem-solving.
PO6	Environment and Sustainability Understand environmental issues and sustainable development goals and apply this knowledge to promote ecological balance and responsible resource utilization.
PO7	Ethics and Social Responsibility Demonstrate ethical values, integrity, inclusiveness, and social responsibility while contributing positively to society and professional environments.
PO8	Teamwork and Leadership Work effectively as an individual and as a member or leader of diverse and multidisciplinary teams, demonstrating leadership, collaboration, and interpersonal skills.
PO9	Communication Skills Communicate effectively through oral, written, visual, and digital means with diverse audiences in academic, professional, and societal settings.
PO10	Employability and Entrepreneurship Develop professional competencies, managerial abilities, and entrepreneurial skills required for employment, higher education, and self-employment opportunities.
PO11	Lifelong Learning Recognize the need for continuous learning, adaptability, and self-development to meet evolving personal, professional, and societal demands in a dynamic global environment.

SEMESTER-I

Semester	Course Category	Title of the Course	Course Code	L	T	P	Credits	Marks		
								CAT	ESE	Total
I	Core	Managerial Economics	PCO26101	4	0	0	4	40	60	100
	Core	Programming Languages using C and C++ (Theory)	PCC26102	4	0	0	4	40	60	100
	SEC	Office Automation & Digital Productivity	PCO26S01	3	0	0	3	40	60	100
		Office Automation & Digital Productivity Lab	PCO26S02	0	0	4	2	40	60	100
	MDC	Multi Disciplinary Course- I		3	0	0	3	40	60	100
	DEC	Entrepreneurship Development	PCO26001	4	0	0	4	40	60	100
		Export & Import Management	PCO26002							
		Services Marketing	PCO26003							
	DEC	Banking Operations and Services	PCO26004	4	0	0	4	40	60	100
		Insurance & Risk Management	PCO26005							
		Forensic Accounting & Fraud Detection	PCO26006							
							24			700

SEMESTER-II

Semester	Course Category	Title of the Course	Course Code	L	T	P	Credits	Marks		
								CAT	ESE	Total
II	Core	Advanced Corporate Accounting	PCO26203	3	1	0	4	40	60	100
	Core	Programming Languages using C and C++ (Practical)	PCC26204	0	0	4	2	40	60	100
	SEC	Artificial Intelligence and Digital Commerce Applications	PCO26S03	3	0	0	3	40	60	100
		Artificial Intelligence and Digital Commerce Lab	PCO26S04	0	0	4	2	40	60	100
	MDC	Multi Disciplinary Course - II		4	0	0	4	40	60	100
	DEC	Investment Management	PCO26007	4	0	0	4	40	60	100
		Organisational Behaviour	PCO26008							
		Management Information System	PCO26009							
	DEC	Blockchain Applications in Business	PCO26010	4	0	0	4	40	60	100
		Green Finance	PCO26011							
		Global Business Trends	PCO26012							
							23			700

SEMESTER-III

Semester	Course Category	Title of the Course	Course Code	L	T	P	Credits	Marks		
								CAT	ESE	Total
III	Core	Income Tax Theory Law & Practice	PCO26305	3	1	0	4	40	60	100
	Core	Research Methodology	PCO26306	3	0	0	3	40	60	100
	Core	Programming in JAVA	PCC26307	3	0	0	3	40	60	100
	Core	Programming in JAVA Lab	PCC26308	0	0	4	2	40	60	100
	Core	Tally with Practical	PCO26309	0	0	6	3	40	60	100
	DEC	Goods and Service Tax	PCO26013	4	0	0	4	40	60	100
		International Marketing	PCO26014							
		Brand Management	PCO26015							
	EE	Experiential Elective (Internship)	-	*			2	*	*	100
	SEC	Communication and Soft Skill	-	1	0	0	1	40	60	100
							22			800

SEMESTER-IV

Semester	Course Category	Title of the Course	Course Code	L	T	P	Credits	Marks		
								CAT	ESE	Total
IV	Core	Cost and Management Accounting	PCO26410	3	1	0	4	40	60	100
	Core	Python Programming	PCC26411	3	0	0	3	40	60	100
	Core	Python Programming Lab	PCC26412	0	0	4	2	40	60	100
	Core	Project	PCO26413	0	0	12	12	40	60	100
							21			400

Semester-wise Categorization of Courses

COURSE CATEGORY	Semester				No of Courses	Total Credits
	I	II	III	IV		
Core Courses	2	2	5	4	13	50
SEC–Skill Enhancement Course	2	2	1	-	5	11
MDC–Multi Disciplinary Course	1	1	-	-	2	7
DEC–Disciplinary Elective Course	2	2	1	-	5	20
EE–Experiential Elective	-	-	1	-	1	2
Total Courses Per Semester	7	7	8	4	26(Courses)	
Total Credits	24	23	22	21	90(Credits)	

MDC OFFERED BY THE DEPARTMENT

S.NO	Title of the Course	Course Code
1	Cyber Security for Business	PCO26901
2	Sustainability and Green Business	PCO26902

DEC OFFERED BY THE DEPARTMENT

S.NO	Title of the Course	Course Code
1	Entrepreneurship Development	PCO26001
2	Export & Import Management	PCO26002
3	Services Marketing	PCO26003
4	Banking Operations & Services	PCO26004
5	Insurance & Risk Management	PCO26005
6	Forensic Accounting & Fraud Detection	PCO26006
7	Investment Management	PCO26007
8	Organisational Behaviour	PCO26008
9	Management Information Systems	PCO26009
10	Blockchain Applications in Business	PCO26010
11	Green Finance	PCO26011
12	Global Business Trends	PCO26012
13	Goods and Service Tax	PCO26013
14	International Marketing	PCO26014
15	Brand Management	PCO26015

Sem	Course Code	Title of the Course	Course Category	L	T	P	Credits
I	PCO26101	MANAGERIAL ECONOMICS	Core	4	0	0	4

Pre-Requisite: Fundamental concepts of Economics (Demand, Supply, Market, and Price)

Co- Requisite: Principles of Management and Business Statistics

Progressive Course: Business Analytics

Course Objectives:

1.To understand the fundamental concepts, nature, scope, and significance of managerial economics in business decision-making.

2. To analyze demand, supply, and market conditions using economic principles and demand forecasting techniques.

3. To examine production, cost, and pricing decisions for efficient resource allocation and profit maximization.

4.To evaluate different market structures and business strategies under conditions of risk and uncertainty.

5.To develop analytical and problem-solving skills for applying economic theories to real-world managerial situations.

Course Outcomes:

CO1: Explain the fundamental concepts, nature, scope, and significance of managerial economics and its role in managerial decision-making.(K2)

CO2: Analyze demand determinants, demand forecasting methods, and consumer behavior for effective business planning.(K4)

CO3: Apply production and cost concepts to optimize resource utilization and improve operational efficiency.(K3)

CO4: Analyze pricing strategies and different market structures to support informed managerial decisions. (K3)

CO5: Evaluate the effectiveness of economic tools and techniques in analyzing business situations involving risk, uncertainty, and profit planning to support strategic business decisions. (K5)

Unit-I	DEMAND, SUPPLY AND MARKET EQUILIBRIUM ANALYSIS	12 Hrs.
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Demand, Supply and Market equilibrium - Individual demand - market demand, individual supply - market supply - market equilibrium - Elasticities of demand and supply - Price elasticity of demand - income elasticity of demand - cross price elasticity of demand - elasticity of supply

Unit-II	CONSUMER BEHAVIOUR AND UTILITY ANALYSIS	12 Hrs.
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Theory of consumer behaviour Cardinal utility theory - ordinal utility theory (indifference curves, budget line, consumer choice, price effect, substitution effect, income effect for normal, inferior and giffen goods); derivation of indifference curves using revealed preference theory.

Unit-III	PRODUCTION AND COST ANALYSIS	12 Hrs.
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Producer and optimal production choice - Optimizing behaviour in short run (product curves, law of diminishing margin productivity, stages of production) - optimizing behaviour in long run (isoquants, isocost line, optimal combination of resources) - traditional theory of cost (short run and long run) - modern theory of cost (short run and long run) - economies of scale and scope.

Unit-IV MARKET STRUCTURES AND PRICING STRATEGIES

12 Hrs.

Theory of firm and market organization Perfect competition (basic features, short run equilibrium of firm/industry, long run equilibrium of firm/industry, effect of changes in demand, cost and imposition of taxes) - monopoly (basic features, short run equilibrium, long run equilibrium, effect of changes in demand, cost and imposition of taxes, comparison with perfect competition, welfare cost of monopoly) - price discrimination, multiplant monopoly - monopolistic competition (basic features, demand and cost, short run equilibrium, long run equilibrium, excess capacity) - Oligopoly Cournot's model kinked demand curve model, dominant price leadership model, Game Theory - Oligopolistic behaviour (dominant strategy, Nash equilibrium, business dilemma, pure strategy, mixed strategy, pure strategy equilibrium, mixed strategy equilibrium)

Unit-V GENERAL EQUILIBRIUM AND WELFARE ECONOMICS

12 Hrs.

Concept of General Equilibrium Partial vs General Equilibrium - General equilibrium of exchange and production - General equilibrium of exchange and production and Pareto optimality

Unit-VI RECENT TRENDS AND CONTEMPORARY DEVELOPMENTS

This unit is designed for academic enrichment and will be covered during classroom instruction. It is excluded from the University Examination, and no questions will be asked from this unit.

Text Book(s):

1. D.N. Dwivedi – Managerial Economics
2. R.L. Varshney & K.L. Maheshwari – Managerial Economics
3. S. Sankaran – Managerial Economics
- 4.P.L. Mehta – Managerial Economics: Analysis
5. Mote, Paul & Gupta – Managerial Economics: Concepts and Cases, Tata McGraw-Hill Education, New Delhi, Latest Edition.

Reference Book(s):

1. Dominick Salvatore – Managerial Economics in a Global Economy, Oxford University Press, Latest Edition.
2. Christopher R. Thomas & S. Charles Maurice – Managerial Economics: Foundations of Business Analysis and Strategy, McGraw-Hill Education, Latest Edition.
3. H.L. Ahuja – Managerial Economics: Analysis of Managerial Decision Making, S. Chand & Company Ltd., New Delhi, Latest Edition.
4. Peterson, H.C. & Lewis, W.C. – Managerial Economics, Pearson Education, Latest Edition.
5. Geetika, Piyali Ghosh & Purba Roy Choudhury – Managerial Economics, McGraw-Hill Education (India), Latest Edition.

e Resources:

1. National Digital Library of India (NDLI) – <https://ndl.iitkgp.ac.in>
2. SWAYAM Online Courses – <https://swayam.gov.in>
3. e-PG Pathshala (UGC) – <https://epgp.inflibnet.ac.in>
4. NPTEL (Managerial Economics & Economics Courses) – <https://nptel.ac.in>
5. Investopedia – Economics & Business Learning Resources – <https://www.investopedia.com>

Relationship Matrix for COs, POs and PSOs

Semester	Course code			Title of the course								Hours		Credit
I	PCO26101			MANAGERIAL ECONOMICS								5		4
Course Outcomes (COs)	Programme Outcomes(POs)											Programme Specific Outcomes (PSOs)		Mean Score of COs
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	
CO1	3	3	2	2	2	1	2	2	3	3	2	2	2	2
CO2	3	3	3	2	3	1	2	2	3	3	2	2	3	2
CO3	3	3	2	2	3	2	2	2	2	3	2	2	3	2
CO4	3	3	2	3	2	1	3	2	3	3	2	2	2	2
CO5	3	3	3	3	3	1	3	2	3	3	3	2	3	3
Mean Overall Score	3	3	2.4	2.4	2.6	1.2	2.4	2	2.8	3	2.2	2	2.6	2.2

Sem	Course Code	Title of the Course	Course Category	L	T	P	Credits
I	PCC26102	PROGRAMMING LANGUAGES USING C AND C++ (THEORY)	CORE	4	-	-	4
Pre-Requisite: Basic knowledge of computers, problem-solving techniques, and fundamental programming concepts.							
Co- Requisite: Ability to design, develop, and debug structured and object-oriented programs using C and C++							
Progressive Course: Data Structures, Database Management Systems, Java Programming, Python Programming, Software Engineering, and Web Technologies.							
Course Objectives:							
1.To understand the fundamentals of C programming and problem-solving techniques.							
2. To develop programs using functions, arrays, and modular programming concepts.							
3. To acquire knowledge of structures, pointers, strings, and file handling in C.							
4. To understand the principles of Object-Oriented Programming and C++ programming constructs.							
5.To develop object-oriented applications using classes, inheritance, polymorphism, exception handling, and file processing.							
Course Outcomes:							
CO1: Explain the fundamental concepts, syntax, and programming constructs of the C programming language. (K2)							
CO2: Develop modular programs using functions, arrays, recursion, and parameter-passing techniques. (K3)							
CO3: Apply structures, pointers, strings, and file handling techniques to solve programming problems. (K3)							
CO4: Demonstrate the principles of Object-Oriented Programming and implement basic C++ programs. (K3)							
CO5: Develop object-oriented applications using classes, inheritance, polymorphism, exception handling and file management techniques in C++.(K5)							
Unit-I	FUNDAMENTALS OF C PROGRAMMING						15 Hrs.
History of C programming - Execution of a C program - Constants - Variables and Keywords - Data Types - Expressions - Constants and Variables - Operators - Operator Precedence and Associativity - Data Input and Output - Formatted Console I/O Functions - Conversion Specifications - Assignment Statements - Conditional Statements - Looping Statements - Storage Classes.							
Unit-II	FUNCTIONS, ARRAYS AND MODULAR PROGRAMMING						15 Hrs.
Introduction to Functions - Functions with Simple Output Parameters - Passing Values between Functions - Multiple Calls to a Function - Parameter Passing by Value vs. Parameter Passing by Reference - Recursion - Arrays - Declaring and Referencing Arrays - Array Subscripts - Using for Loops for Sequential Access - Multidimensional Arrays - Passing Arrays as Arguments.							
Unit-III	STRUCTURES, POINTERS AND FILE HANDLING						15 Hrs.
Structures - Unions - Strings - Pointers - Files - Structures and Unions: Definition - Processing Structures - Passing Structures to a Function - Operations on Pointers - Pointers to Functions - Functions Returning Pointers - Arrays of Pointers - String Handling - Text File Processing - Data File Processing.							

Unit-IV	OBJECT-ORIENTED PROGRAMMING AND C++ BASICS	15 Hrs.
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Evolution of Object-Oriented Programming (OOP) - OOP Paradigm - Advantages of OOP - Comparison between Functional Programming and OOP Approach - Characteristics of Object-Oriented Language - Introduction to C++ - Identifiers and Keywords - Constants - C++ Operators - Type Conversion - Variable Declaration - Statements - Expressions - Input and Output - Conditional Expressions - Loop Statements - Breaking Control Statements.

Unit-V	ADVANCED C++ CONCEPTS	15 Hrs.
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Classes and objects, constructors and destructors, function and operator overloading, inheritance, Virtual Function, friend function, this pointer, dynamic type information and polymorphism. C++ streams, console stream classes, formatted and unformatted console I/O operations, manipulators, File streams, classes file modes file pointers and manipulations file I/O, Exception handling, dynamic memory allocation.

Text Book(s):

1. Programming in ANSI C, McGraw-Hill Education.
2. Object Oriented Programming with C++, McGraw-Hill Education.
3. Programming with C, Schaum's Outline Series.

Reference Book(s):

1. The C Programming Language, Pearson Education.
2. Let Us C, BPB Publications.
3. C++: The Complete Reference, McGraw-Hill Education.
4. The C++ Programming Language, Addison-Wesley.
5. Object-Oriented Programming in C++, SAMS Publishing.

e Resources:

1. Microsoft Learn – <https://learn.microsoft.com>
2. Microsoft 365 Training – <https://support.microsoft.com/training>
3. Google Workspace Learning Center – <https://support.google.com/a/users>
4. LinkedIn Learning – <https://www.linkedin.com/learning>
5. NPTEL – <https://nptel.ac.in>
6. SWAYAM – <https://swayam.gov.in>

Relationship Matrix for COs, POs and PSOs

Semester	Course code			Title of the course								Hours		Credit
I	PCC26102			PROGRAMMING LANGUAGES USING C AND C++ (THEORY)								5		4
Course Outcomes (COs)	Programme Outcomes(POs)											Programme Specific Outcomes (PSOs)		Mean Score of COs
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	
CO1	3	2	1	1	2	-	-	-	1	1	1	2	2	2
CO2	3	3	2	2	2	-	-	-	1	1	1	3	2	2.15
CO3	3	3	2	2	3	-	-	-	1	1	1	3	3	2.31
CO4	3	3	2	3	3	-	-	-	1	2	1	3	3	2.46
CO5	3	3	3	3	3	-	-	-	1	3	2	3	3	2.69
Mean Overall Score	3	2.8	2	2.2	2.6	-	-	-	1	1.6	1.2	2.8	2.6	2.32

Sem	Course Code	Title of the Course	Course Category	L	T	P	Credits
I	PCO26S01	Office Automation and Digital Productivity	Skill Enhancement Course	3	0	0	3
Pre-Requisite: Basic computer literacy, familiarity with operating systems.							
Co- Requisite: Business Communication, Information Technology for Business.							
Progressive Course : Advanced Office Applications, Business Analytics, Data Visualization.							
Course Objectives:							
1. Understand the concepts and applications of office automation in business organizations.							
2. Develop professional business documents using advanced word processing tools.							
3. Analyze and manage business data using spreadsheet applications.							
4. Design effective business presentations and digital communication materials.							
5. Utilize cloud-based collaboration tools and digital productivity applications for organizational efficiency.							
Course Outcomes:							
CO1: Explain the concepts and importance of office automation and digital productivity tools. (K1)							
CO2: Apply advanced word processing techniques to prepare professional business documents.(K2)							
CO3: Use spreadsheet applications for business calculations, data analysis, and reporting. (K3)							
CO4: Analyze the use of professional presentation techniques and cloud-based office applications to enhance collaboration, communication, and productivity. (K4)							
CO5:Evaluate digital productivity solutions for improving organizational efficiency and communication. (K5)							
Unit-I	FUNDAMENTALS OF OFFICE AUTOMATION					9 Hrs.	
Introduction to Office Automation - Evolution of Digital Offices - Components of Office Automation Systems - Computer Hardware and Software for Office Use – Operating Systems and File Management - Digital Workplace Environment - Office Information Systems - Business Communication Technologies - Cloud Computing Fundamentals - Cyber Ethics and Digital Citizenship							
Unit-II	ADVANCED WORD PROCESSING					9 Hrs.	
Professional Document Creation - Document Formatting and Styles -Templates and Themes -Tables and Charts -Mail Merge - Labels and Envelopes -SmartArt and Graphics - References and Citations -Table of Contents -Headers and Footers - Forms and Fillable Documents - Document Review Tools -Track Changes and Comments - Document Protection and Security							
Unit-III	SPREADSHEET APPLICATIONS FOR BUSINESS					9 Hrs.	

Workbook Management - Cell Referencing - Advanced Formulas - Logical Functions -Financial Functions - Statistical Functions - Lookup and Reference Functions - Data Validation - Conditional Formatting - Sorting and Filtering - Pivot Tables - Pivot Charts - What-if Analysis - Goal Seek - Scenario Manager - Data Visualization - Dashboard Design

Unit-IV	PRESENTATION AND DIGITAL COMMUNICATION	9 Hrs.
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Professional Presentation Design -Presentation Templates -Themes and Layouts – SmartArt - Charts and Graphs - Multimedia Integration - Animation Effects - Slide Transitions - Presenter View - Infographics - Business Storytelling - Video Conferencing Tools - Online Meeting Management - Digital Communication Etiquette

Unit-V	CLOUD COLLABORATION AND DIGITAL PRODUCTIVITY	9 Hrs.
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Microsoft 365 - Google Workspace - Cloud Storage Services - File Sharing -Real-time Collaboration - Online Forms - Calendar Management - Task Management Tools - Project Collaboration Platforms - Digital Workflow Management -Electronic Signatures - Data Backup and Recovery -Cybersecurity Best Practices - Future Trends in Office Automation - Artificial Intelligence in Office Productivity

Unit-VI	RECENT TRENDS AND CONTEMPORARY DEVELOPMENTS
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This unit is designed for academic enrichment and will be covered during classroom instruction. It is excluded from the University Examination, and no questions will be asked from this unit.

Text Book(s):

1. Joan Lambert, Microsoft Office 365 Step by Step, Microsoft Press.
2. Peter Weverka, Office 365 All-in-One for Dummies, Wiley.
3. Jennifer Reed, Business Productivity Using Microsoft Office, Cengage Learning.

Reference Book(s):

1. Stephen L. Nelson, Excel Data Analysis, Microsoft Press.
2. Joan Lambert, Microsoft Word Step by Step, Microsoft Press.
3. Faithe Wempen, PowerPoint Bible, Wiley.
4. Nita Rutkosky, Microsoft Office Professional Series, Paradigm Education.
5. V. Rajaraman, Fundamentals of Computers, PHI Learning.

Relationship Matrix for COs, POs and PSOs

Semester	Course code			Title of the course								Hours		Credit
I	PCO26S01			Office Automation and Digital Productivity								3		3
Course Outcom es (COs)	Programme Outcomes (POs)											Programme Specific Outcomes (PSOs)		Mean Score of COs
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	
CO1	3	2	2	3	2	2	2	2	2	3	2	3	3	2
CO2	3	3	2	3	2	2	2	3	2	3	2	3	3	3
CO3	3	3	3	3	2	2	3	3	2	3	2	3	3	3
CO4	2	3	2	3	3	2	3	3	3	3	2	2	3	3
CO5	3	2	2	3	3	3	3	3	2	3	3	3	3	3
Mean Overall Score	2.8	2.6	2.2	3	2.4	2.2	2.6	2.8	2.2	3	2.2	2.8	3	2.8

Sem	Course Code	Title of the Course	Course Category	L	T	P	Credits
I	PCO26S02	Office Automation and Digital Productivity Lab	Core	0	0	4	2

Pre-Requisite: Basic Computer Fundamentals and Digital Literacy.

Co- Requisite: Advanced Office Applications and Business Information Systems

Progressive Course: Develops the knowledge and practical skills required to effectively use advanced digital productivity

Course Objectives:

1. Develop proficiency in office productivity software.
2. Create professional documents, spreadsheets, and presentations.
3. Apply digital tools for business communication and collaboration.
4. Organize and manage files using cloud-based applications.
5. Improve workplace productivity through automation features.

Course Outcomes:

CO1: Explain the features and applications of office automation tools for creating professional business documents. (K2)

CO2: Apply spreadsheet applications to perform data analysis and solve business problems. (K3)

CO3: Create effective business presentations using presentation software and digital design principles. (K3)

CO4: Analyze the use of cloud-based collaboration and digital communication tools for improving workplace efficiency. (K4)

CO5: Evaluate the effectiveness of digital productivity techniques, AI-assisted applications, and document management tools in enhancing office efficiency and business productivity. (K5)

Program 1: Create a professional business letter with proper formatting, header, footer, and page numbers.

Program 2: Prepare a resume using templates, tables, and formatting features in a word processor.

Program 3: Create a Mail Merge document to generate personalized invitation letters for 20 recipients.

Program 4: Prepare an employee salary sheet using spreadsheet formulas (SUM, AVERAGE, MAX, MIN).

Program 5: Create a monthly sales report and represent the data using column and pie charts.

Program 6: Apply sorting, filtering, and conditional formatting to a student marks database.

Program 7: Design a 10-slide business presentation using themes, animations, transitions, and SmartArt.

Program 8: Create an online feedback form using a digital forms application and collect sample responses.

Program 9: Store documents in cloud storage, share files with collaborators, and assign viewing/editing permissions.

Program 10: Convert a Word document into PDF, merge multiple PDF files, and apply password protection to the final document.

Relationship Matrix for COs, POs and PSOs

Semester	Course code			Title of the course								Hours		Credit
I	PCO26S02			Office Automation and Digital Productivity Lab								3		3
Course Outcomes (COs)	Programme Outcomes(POs)											Programme Specific Outcomes (PSOs)		Mean Score of COs
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	
CO1	3	3	2	2	2	1	2	2	2	2	2	3	2	2
CO2	3	3	2	2	2	1	3	2	2	2	2	3	3	2
CO3	3	3	3	2	3	1	2	3	2	2	3	3	3	2
CO4	3	3	3	2	3	1	2	2	2	2	3	3	3	2
CO5	3	3	3	3	3	1	3	2	3	3	3	3	3	2
Mean Overall Score	3	3	2.6	2.2	2.6	1	2.4	2.2	2.2	2.2	2.6	3	2.8	2

Sem	Course Code	Title of the Course	Course Category	L	T	P	Credits
I	PCO26001	Entrepreneurship Development	Disciplinary Elective Course	4	0	0	4

Pre-Requisite: Basic knowledge of Business Studies.

Co- Requisite: Business Environment, Financial Management.

Progressive Course: Startup Management, Small Business Management.

Course Objectives:

1. Explain the concepts, theories, characteristics, and significance of entrepreneurship and its contribution to economic growth and employment generation.
2. Examine entrepreneurial competencies, opportunity identification techniques, creativity, innovation, and the entrepreneurial ecosystem required for venture creation.
3. Apply the principles of business opportunity assessment, project formulation, business plan preparation, and enterprise establishment to develop entrepreneurial ventures.
4. Analyze various sources of entrepreneurial finance, institutional support, government policies, legal procedures, and startup promotion schemes for business development.
5. Apply entrepreneurial strategies, leadership skills, innovation, and risk management practices to establish, manage, and sustain successful business enterprises.

Course Outcomes:

CO1: Explain the concepts, characteristics, functions, and importance of entrepreneurship and its role in economic and social development. (K2)

CO2: Illustrate the entrepreneurial process, identify business opportunities, and explain the competencies required for successful entrepreneurs. (K2)

CO3: Apply the principles of project formulation, business plan preparation, and enterprise establishment in developing a business venture. (K3)

CO4: Analyze various sources of finance, institutional support, government schemes, and legal requirements for establishing and managing entrepreneurial ventures. (K4)

CO5: Evaluate Entrepreneurial strategies are plans and actions adopted by entrepreneurs to identify opportunities, gain competitive advantage, and achieve business growth.. (K5)

Unit-I	ENTREPRENEURSHIP	9 Hrs.
Definition of Entrepreneur - Internal and External Factors - Functions of an Entrepreneur - Entrepreneurial motivation and Barriers - Classification of Entrepreneurship - Theory of Entrepreneurship - Concept of Entrepreneurship - Development of entrepreneurship- Concept of entrepreneur - Manager and Intraprenuer (differences in their roles, responsibilities and Career Opportunities)		
Unit-II	CREATIVITY AND ENTREPRENEURIAL PLAN	9 Hrs.

The business plan as an entrepreneurial tool - Contents of a business plan, Idea Generation - Screening and Project Identification - Creative Performance - Feasibility Analysis: Economic - Marketing, Financial and Technical - Project Planning: Evaluation, Monitoring and Control segmentation - Creative Problem Solving: Heuristics, Brainstorming, Value Analysis, Innovation. - Project Feasibility and Project Appraisal.

Unit-III	CORPORATE ENTREPRENEURSHIP	9 Hrs.
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Introduction - Flavors of corporate entrepreneurship - Corporate venturing – Intrapreneurship - organizational transformation - Industry rule bending -Need for corporate entrepreneurship - domain of corporate entrepreneurship - conditions favorable for Corporate entrepreneurship, benefits of Corporate entrepreneurship, issues related to Corporate entrepreneurship.

Unit-IV	FAMILY AND NON FAMILY ENTREPRENEUR, WOMEN ENTREPRENEURS & PROJECT FINANCE	9 Hrs.
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Family and Non Family Entrepreneur & Women entrepreneurs: Role of Professionals -Professionalism vs family entrepreneurs - Role of Woman entrepreneur – Factors influencing women entrepreneur - Challenges for women entrepreneurs - Growth and development of women entrepreneurs in India

Project Finance: Need for finance, sources of finance, Venture capital, Nature and Overview, Venture capital process, locating venture capitalists.

Unit-V	INTERNATIONAL ENTREPRENEURSHIP OPPORTUNITIES	9 Hrs.
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International Entrepreneurship Opportunities: The nature of international entrepreneurship - Importance of international business to the firm - International versus domestic' entrepreneurship - Stages of economic development - Institutional support for new ventures: Supporting Organizations - Incentives and facilities -Financial Institutions and Small scale Industries - Govt. Policies for SSIs - Case studies on Indian Start ups

Unit-VI	RECENT TRENDS AND CONTEMPORARY DEVELOPMENTS	
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This unit is designed for academic enrichment and will be covered during classroom instruction. It is excluded from the University Examination, and no questions will be asked from this unit.

Text Book(s):

1. Vasant Desai, Dynamics of Entrepreneurship Development ,Himalaya Publication house
 2. David holt Entrepreneurship , New Venture Creation , Prentice Hall India.
 3. S.S. Khanka ,Entrepreneurial Development S.Chand & Company Ltd. New Delhi
 4. Peter F. Drucker , Innovation and Entrepreneurship
- Robert D. Hisrich, Michael P. Peters & Dean A. Shepherd – *Entrepreneurship*

Reference Book(s):

- Bruce R. Barringer & R. Duane Ireland – Entrepreneurship: Successfully Launching New Ventures
- Donald F. Kuratko – Entrepreneurship: Theory, Process and Practice
- E. Gordon & K. Natarajan – Entrepreneurship Development
- S. S. Khanka – Entrepreneurship Development
- Vasant Desai – Dynamics of Entrepreneurial Development and Management

e Resources:

1. <https://www.startupindia.gov.in>
2. <https://www.niesbud.nic.in>
3. <https://www.nimsme.gov.in>
4. <https://msme.gov.in>
5. <https://www.nsdcindia.org>

Relationship Matrix for COs, POs and PSOs

Semester	Course code		Title of the course										Hours	Credit
I	PCO26001		Entrepreneurship Development										5	4
Course Outcomes (COs)	Programme Outcomes (POs)											Programme Specific Outcomes (PSOs)		Mean Score of COs
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	
CO1	3	3	3	2	3	–	3	2	3	3	2	3	3	2.75
CO2	3	3	3	3	3	–	3	2	3	3	3	3	3	2.92
CO3	3	3	3	3	3	–	2	3	3	3	3	3	3	2.92
CO4	3	3	3	3	3	–	3	3	3	3	3	3	3	3
CO5	3	3	3	3	3	2	3	3	3	3	3	3	3	2.92
Mean Overall Score	3	3	3	2.8	3	2	2.8	2.6	3	3	2.8	3	3	2.9

Sem	Course Code	Title of the Course	Course Category	L	T	P	Credits
I	PCO26002	EXPORT & IMPORT MANAGEMENT	Disciplinary Elective Course	4	0	0	4

Pre-Requisite: Fundamentals of Business Management

Co- Requisite: Foreign Exchange Management

Progressive Course: International Business Management

Course Objectives:

1. To provide students with a comprehensive understanding of export-import trade and the international business environment.

2. To familiarize students with export-import documentation, procedures, and trade practices.

3. To develop knowledge of logistics, transportation, shipping, and containerization in international trade.

4. To understand customs procedures, export financing, payment mechanisms, and pricing practices in international business.

5. To examine India's EXIM policy and its role in promoting international trade and economic development.

Course Outcomes:

CO1: Explain the concepts, evolution, significance, and institutional framework of export-import trade and international business. (K2)

CO2: Describe export-import documentation, procedures, marketing strategies, incentive schemes, and risk management practices. (K2)

CO3: Analyze logistics systems, transportation modes, shipping operations, containerization, and leasing practices in global trade. (K4)

CO4: Evaluate Export–Import Procedures, Customs Regulations, Payment Methods, Pricing Terms, and Export Financing Techniques in Business Situations (K5)

CO5: Analyze the objectives, provisions, and impact of India's EXIM policy on international trade and economic growth. (K4)

Unit-I	FUNDAMENTALS OF INTERNATIONAL TRADE AND EXPORT–IMPORT MANAGEMENT	9 Hrs.
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International Trade: Meaning, Nature and Scope of International Trade – Importance of International Trade - Domestic Trade vs. International Trade - Globalization and Liberalization -International Business Environment - Balance of Trade and Balance of Payments Comparative Cost Theory - Absolute Advantage Theory - Heckscher–Ohlin Theory -International Trade Barriers - Tariff and Non-Tariff Barriers - Regional

<p>Trade Agreements - Economic Integration - Free Trade Agreements (FTAs) - Regional Comprehensive Economic Partnership (RCEP) - India's Export-Import Scenario</p> <p>Export Import Management: Meaning, Objectives and Functions - Role of Export-Import Manager- Export Business Planning - International Trade Institutions - WTO - IMF - World Bank - UNCTAD -International Chamber of Commerce (ICC)</p>		
Unit-II	EXPORT PROCEDURES, DOCUMENTATION AND FOREIGN TRADE POLICY	9 Hrs.
<p>Export Procedure : Export Business Process - Export Opportunities Identification - Product Selection- Export Market Research - Export Pricing - Export Quotations - Export Contracts -Incoterms (Latest Version) - Export Licensing - Iec Registration - Rcmc Registration - Ad Code Registration</p> <p>Export Documentation : Commercial Invoice - Packing List - Shipping Bill - Bill of Lading - Airway Bill- Certificate of Origin - Insurance Certificate - Inspection Certificate - Mate's Receipt Bill of Exchange - Export Declaration Forms - Electronic Documentation</p> <p>Foreign Trade Policy: Objectives - Export Promotion Measures - Export Promotion Councils - Special Economic Zones (SEZ) - Export Oriented Units (EOU) - Duty Drawback Scheme RoDTEP Scheme - Advance Authorization Scheme</p>		
Unit-III	IMPORT PROCEDURES, CUSTOMS CLEARANCE AND INTERNATIONAL LOGISTICS	9 Hrs.
<p>Import Management: Import Trade Procedure - Import Licensing - Import Documentation - Import Contracts - Customs Duty Structure - Customs Valuation - Customs Clearance Procedure - Customs Electronic Data Interchange (EDI) - Import Risk Management</p> <p>International Logistics: Meaning and Scope - International Transportation - Shipping Management - Air Cargo Management - Containerization - Multimodal Transport - Freight Forwarding Warehousing - Packaging for Export - Marine Insurance - Cargo Handling - Port Operations</p>		
Unit-IV	EXPORT FINANCE, INTERNATIONAL PAYMENTS AND RISK MANAGEMENT	9 Hrs.
<p>Export Finance: Need and Importance – Pre - shipment Finance – Post - shipment Finance - Export Credit - Packing Credit - Export Factoring - Forfaiting - Export Credit Insurance - ECGC Services</p> <p>International Payment Systems: Letter of Credit (LC) - Bank Guarantee - Documentary Collection - Open Account- Advance Payment - SWIFT System - International Banking</p> <p>Foreign Exchange Management: Exchange Rate Foreign Exchange Market - Hedging Techniques - FEMA - RBI Guidelines - Currency Risk Management</p>		
Unit-V	INTERNATIONAL MARKETING, TRADE PRACTICES AND EMERGING TRENDS	9 Hrs.

International Marketing: Export Marketing - International Market Selection - Export Promotion Strategies - Digital Marketing in International Business - Branding in International Markets - Product Adaptation - Pricing Strategies - International Distribution Channels

International Trade Practices: International Negotiation - Trade Fair Participation - International Business Communication - Cross-Cultural Management - Business Ethics in International Trade - Sustainable Export Practices

Emerging Trends: Digital Trade - Cross-Border E-Commerce - Blockchain in International Trade - Artificial Intelligence in Export Management - Green Logistics - Supply Chain Resilience - Global Value Chains - Trade Compliance - ESG in International Business

Unit-VI

RECENT TRENDS AND CONTEMPORARY DEVELOPMENTS

This unit is designed for academic enrichment and will be covered during classroom instruction. It is excluded from the University Examination, and no questions will be asked from this unit.

Text Book(s):

1. Francis Cherunilam, International Business: Text and Cases, Himalaya Publishing House.
2. Paras Ram, Export: What, Where and How, Anupam Publications.
3. C.B. Gupta, International Business, Sultan Chand & Sons.
4. Rathor B.S. & Rathor J.S., Export Management, Himalaya Publishing House.
5. T.A.S. Balagopal, Export Management, Himalaya Publishing House.

Reference Book(s):

1. Justin Paul & Rajiv Aserkar, Export Import Management, Oxford University Press.
2. P. Subba Rao, International Business, Himalaya Publishing House.
3. Khushpat S. Jain, Export Import Procedures and Documentation, Himalaya Publishing House.
4. Alan E. Branch, Export Practice and Management, Thomson Learning.
5. Rakesh Mohan Joshi, International Business, Oxford University Press.

e Resources:

1. Ministry of Commerce and Industry, Government of India – <https://www.commerce.gov.in>
2. Export Import Data Bank (Department of Commerce) – <https://tradestat.commerce.gov.in>
3. Central Board of Indirect Taxes and Customs (CBIC) – <https://www.cbic.gov.in>
4. World Trade Organization (WTO) – <https://www.wto.org>
5. International Trade Centre (ITC) – <https://www.intracen.org>

Relationship Matrix for COs, POs and PSOs

Semester	Course code			Title of the course								Hours		Credit
I	PCO26002			EXPORT IMPORT MANAGEMENT								5		4
Course Outcom es (COs)	Programme Outcomes (POs)											Programme Specific Outcomes (PSOs)		Mean Score of COs
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	
CO1	3	3	2	2	2	1	2	2	2	2	3	2	3	2
CO2	3	3	3	2	3	1	2	2	2	2	3	2	3	2
CO3	3	3	3	3	3	1	2	2	3	2	3	2	3	3
CO4	3	3	3	2	3	1	2	2	3	3	3	3	3	3
CO5	3	3	3	3	2	1	3	2	3	3	3	3	3	3
Mean Overall Score	3	3	2.8	2.4	2.6	1	2.2	2	2.6	2.4	3	2.4	3	2.6

Sem	Course Code	Title of the Course	Course Category	L	T	P	Credits
I	PCO26003	Services Marketing	Disciplinary Elective Course	4	0	0	4
Pre-Requisite: Principles of management, and consumer behaviour							
Co- Requisite: Knowledge of business communication, service operations, and customer relationship management							
Progressive Course: Advanced Marketing Management / Digital Marketing / Customer Relationship Management							
Course Objectives:							
1. To understand the fundamental concepts, characteristics, and importance of services marketing in the business environment.							
2. To analyze service consumer behaviour, service quality dimensions, and customer expectations for effective service delivery.							
3. To apply marketing strategies related to service design, pricing, promotion, and distribution in service organizations.							
4. To evaluate customer relationship management practices and service performance improvement techniques.							
5. To develop an understanding of emerging trends, digital transformation, and innovative practices in services marketing.							
Course Outcomes:							
CO1: Explain the concepts, characteristics, scope, and significance of services marketing and its role in business growth. (K2)							
CO2: Analyze service consumer behaviour, service quality dimensions, and customer expectations for effective service management. (K4)							
CO3: Apply marketing strategies related to service design, pricing, promotion, and distribution to improve service delivery. (K3)							
CO4: Evaluate customer relationship management practices, service recovery strategies, and methods for enhancing customer satisfaction. (K5)							
CO5: Assess emerging trends, digital technologies, and innovative approaches in services marketing for achieving competitive advantage (K4)							
Unit-I	INTRODUCTION TO SERVICES MARKETING					9 Hrs.	

Services: Concepts - Characteristics and Classification of Services - Goods vs. Services - Services Marketing Mix - Service Marketing Triangle - Factors responsible for Growth of Services Sector - Challenges faced by the Services Sector - Service and Technology - Impact of Technology on Service Firms - Emerging Service Sectors in India.

Unit-II	FOCUSING ON CONSUMER	9 Hrs.
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Consumer Behaviour in Services - Relevance of Consumer Behaviour - Consumer Expectations in Service - Consumer Perceptions of Service - Customer Satisfaction - Understanding Consumer Requirements: Listening to Customers Through Research - Building Customer Relationships - Customer Feedback - Service Failure - Service Recovery and Recovery Strategies.

Unit-III	INNOVATION AND QUALITY	9 Hrs.
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Service Innovation: Design – Challenges - Mapping Patterns of Service Innovation - Types of Service Innovation - Stages in Service Innovation and Development - Service Quality - Gap model of Service Quality: Customer Gap and Provider Gaps - Closing Gaps - Service Excellence - Service Standards: Factors & Types - Physical Evidence: Managing Physical Evidence - Servicescape and Designing the Servicescape.

Unit-IV	MANAGING SERVICE OPERATIONS	9 Hrs.
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Service Process - Service Blueprinting - Managing Demand and Supply - Participants in Service Delivery - Employee's role & Customer's role. Mass Production and Delivery - Service Guarantee - Ethics in Service Firms.

Unit-V	MANAGING SERVICE PROMISES	9 Hrs.
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Managing Distribution Channels in Service Industry - Strategies for Distribution - Managing People in Service Industry and its Challenges - Pricing Strategies for Services and its Methods - Promotion Strategies for Services - Need for Coordination in Marketing Communication - Strategies to match Service Promises with Delivery.

Unit-VI	RECENT TRENDS AND CONTEMPORARY DEVELOPMENTS	
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This unit is designed for academic enrichment and will be covered during classroom instruction. It is excluded from the University Examination, and no questions will be asked from this unit.

Text Book(s):

1. Valarie A. Zeithaml, Mary Jo Bitner and Dwayne D. Gremler – Services Marketing: Integrating Customer Focus Across the Firm, McGraw-Hill Education.
2. Christopher Lovelock and Jochen Wirtz – Services Marketing: People, Technology, Strategy, Pearson Education.
3. Harsh V. Verma – Services Marketing: Text and Cases, Pearson Education.
4. K. Douglas Hoffman and John E.G. Bateson – Services Marketing: Concepts, Strategies and Cases, Cengage Learning.
5. Ravi Shanker – Services Marketing: The Indian Perspective, Excel Books.

Reference Book(s):

1. Adrian Payne – The Essence of Services Marketing, Prentice Hall.

2. Christian Grönroos – Service Management and Marketing: Customer Management in Service Competition, Wiley.
3. A.K. Rai – Service Marketing, PHI Learning.
4. Nimit Chowdhary and Monika Chowdhary – Textbook of Marketing of Services: The Indian Experience, Macmillan India.
5. Helen Woodruffe – Services Marketing, Macmillan Education.

e Resources:

1. [NPTEL – Services Marketing Course- https://nptel.ac.in](https://nptel.ac.in)
2. [SWAYAM Online Courses - https://swayam.gov.in](https://swayam.gov.in)
3. [e-PG Pathshala – Marketing Management Resources - https://epgp.inflibnet.ac.in](https://epgp.inflibnet.ac.in)
4. [National Digital Library of India \(NDLI\) - https://ndl.iitkgp.ac.in](https://ndl.iitkgp.ac.in)
5. Google Scholar- <https://scholar.google.com>

Relationship Matrix for COs, POs and PSOs

Semester	Course code			Title of the course								Hours		Credit
I	PCO26003			Services Marketing								5		4
Course Outcomes (COs)	Programme Outcomes (POs)											Programme Specific Outcomes (PSOs)		Mean Score of COs
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	
CO1	3	2	1	1	2	—	1	1	2	2	2	3	2	1.69
CO2	3	3	2	2	2	—	2	1	2	2	2	3	3	2.08
CO3	2	3	2	3	2	—	1	2	2	3	2	2	3	2.08
CO4	2	3	2	2	2	—	3	2	3	2	2	2	3	2.15
CO5	2	3	2	3	3	1	1	2	2	3	3	2	3	2.31
Mean Overall Score	2.4	2.8	1.8	2.2	2.2	1	1.6	1.6	2.2	2.4	2.2	2.4	2.8	2.06

Sem	Course Code	Title of the Course	Course Category	L	T	P	Credits
I	PCO26004	Banking Operations & Services	Disciplinary Elective Course	4	0	0	4
Pre-Requisite: Basic knowledge of Banking, Commerce, and Financial Systems							
Co- Requisite: Principles of Banking / Financial Management / Banking Laws							
Progressive Course ; Advanced Banking Management / Investment Management.							
Course Objectives:							
1. To understand the concepts, structure, and functions of commercial banking.							
2. To acquire knowledge of deposit, lending, and customer service operations in banks.							
3. To familiarize students with banking regulations, risk management, and financial inclusion.							
4. To develop an understanding of digital banking, electronic payment systems, and modern banking technologies.							
5. To analyze emerging trends and innovations in the banking sector.							
Course Outcomes:							
CO1: Explain the structure, functions, products, and services of commercial banks. (K2)							
CO2: Demonstrate knowledge of deposit mobilization, lending operations, and customer relationship management.(K3)							
CO3: Analyze banking regulations, risk management practices, and non-performing assets. (K4)							
CO4: Evaluate digital banking services, electronic payment systems, and cybersecurity in banking.(K5)							
CO5: Assess emerging technologies, FinTech innovations, and future trends in banking operations and services.(K5)							
Unit-I	INTRODUCTION TO BANKING OPERATIONS					12 Hrs.	
Evolution of Banking – Meaning and Functions of Commercial Banks – Structure of Indian Banking System – Types of Banks – Banking Regulation Act – Reserve Bank of India (RBI): Functions and Role – Banking Sector Reforms – Banking Products and Services – Principles of Banking – Challenges in Modern Banking.							
Unit-II	DEPOSIT AND LENDING OPERATIONS					12 Hrs.	
Deposit Accounts – Types of Deposits – Savings Bank Account – Current Account – Fixed Deposit – Recurring Deposit – Account Opening Procedure – KYC Norms – Customer Identification Process – Lending Principles – Types of Loans and Advances – Credit Appraisal – Loan Documentation – Priority Sector Lending – Recovery of Loans.							
Unit-III	BANKING SERVICES AND CUSTOMER RELATIONSHIP MANAGEMENT					12 Hrs.	

Customer Relationship Management (CRM) – Customer Service in Banks – Banking Ombudsman – Grievance Redressal Mechanism – Retail Banking – Corporate Banking – Merchant Banking – Investment Banking – Bancassurance – Agency Services – Utility Services – Financial Inclusion – Microfinance.

Unit-IV	RISK MANAGEMENT AND REGULATORY FRAMEWORK	12 Hrs.
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Risk Management in Banks – Credit Risk – Market Risk – Operational Risk – Liquidity Risk – Basel Norms – Capital Adequacy – Asset Liability Management (ALM) – Non-Performing Assets (NPAs) – RBI Prudential Norms – Anti-Money Laundering (AML) – Prevention of Money Laundering Act (PMLA) – Banking Ethics and Corporate Governance.

Unit-V	DIGITAL BANKING AND EMERGING BANKING SERVICES	12 Hrs.
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Digital Banking – Electronic Banking (E-Banking) – Internet Banking – Mobile Banking – Core Banking Solutions (CBS) – Automated Teller Machine (ATM) – Debit Cards and Credit Cards – Electronic Payment Systems: NEFT, RTGS, IMPS, UPI, BHIM and Mobile Wallets – Cyber Security in Banking – Digital Fraud Prevention – FinTech – Artificial Intelligence (AI) in Banking – Blockchain Technology – Open Banking – Digital Lending – Future Trends in Banking Services.

Unit-VI	RECENT TRENDS AND CONTEMPORARY DEVELOPMENTS
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This unit is designed for academic enrichment and will be covered during classroom instruction. It is excluded from the University Examination, and no questions will be asked from this unit.

Text Book(s):

- 1.Principles and Practices of Banking Indian Institute of Banking and Finance (IIBF),2024 Edition
2. Banking Theory, Law and PracticeE. Gordon & K. Natarajan, 2023 Edition
3. Banking Law and Practice P. N. Varshney, 2023 Edition
4. Modern Banking R. K. Uppal & Rimpi Kaur,2022 Edition
5. Financial Services M. Y. Khan, 2022 Edition

Reference Book(s):

1. Gordon & Natarajan – **Banking Theory, Law and Practice.**
2. S. N. Maheshwari – **Banking Law and Practice.**
3. Indian Institute of Banking & Finance (IIBF) – **Principles and Practices of Banking.**

e Resources:

1. <https://nptel.ac.in/courses/110104073>
2. <https://nptel.ac.in/courses/110106062>
3. <https://ocw.mit.edu/courses/15-053-optimization-methods-in-management-science-spring-2013>
4. <https://www.khanacademy.org/math/statistics-probability>
5. [Institute for Development and Research in Banking Technology \(IDRBT\)](#) – Resources on banking technology, cybersecurity, and digital banking.

Relationship Matrix for COs, POs and PSOs

Semester	Course code			Title of the course								Hours		Credit
I	PCO26004			Banking Operations & Services								5		4
Course Outcom es (COs)	Programme Outcomes (POs)											Programme Specific Outcomes (PSOs)		Mean Score of COs
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	
CO1	3	2	2	1	2	1	2	2	2	2	2	3	2	2
CO2	3	3	2	2	2	1	3	2	2	3	2	3	2	2
CO3	3	3	3	2	2	2	3	2	2	3	3	3	3	2
CO4	3	3	3	3	3	2	3	2	3	3	3	3	3	3
CO5	3	3	3	3	3	2	3	2	3	3	3	3	3	3
Mean Overall Score	3	2.8	2.6	2.2	2.4	1.6	2.8	2	2.4	2.8	2.6	3	2.6	2.4

Sem	Course Code	Title of the Course	Course Category	L	T	P	Credits
I	PCO26005	Insurance & Risk Management	Disciplinary Elective Course	4	0	0	4

Pre-Requisite: Basic knowledge of Commerce, Finance, Economics, and Business Environment

Co- Requisite: Financial Management / Banking Operations and Services

Progressive Course: Advanced Insurance Management and Financial Risk Management

Course Objectives:

1. To Understand the basic concepts, principles, characteristics, and significance of insurance and its role in economic development.
2. To Explain the various types of life insurance products, contracts, principles, and operations of life insurance business.
3. To Apply the principles of general insurance and analyze different insurance products, claim procedures, and risk coverage mechanisms.
4. To Analyze risk management processes, risk identification, evaluation, mitigation techniques, and risk financing approaches for individuals and organizations.
5. To Evaluate the regulatory framework of insurance in India, including the role, powers, and functions of IRDA and policyholder protection measures.

Course Outcomes:

CO1: Recall the basic concepts, principles, characteristics, types, and significance of insurance and its contribution to economic development. (K1)

CO2: Explain the fundamentals of life insurance business, life insurance contracts, products, policies, pension plans, annuities, reinsurance, and double insurance concepts. (K2)

CO3: Apply the principles of insurance to identify and analyze suitable life and general insurance products, including fire, marine, motor, personal accident, and liability insurance. (K3)

CO4: Analyze various risk management approaches, including risk identification, risk assessment, risk reduction, risk transfer, retention, and risk financing techniques. (K4)

CO5: Evaluate the regulatory role of IRDA under the IRDA Act 1999, including its functions, operations, prudential norms, and policyholder protection provisions. (K5)

Unit-I	INTRODUCTION TO INSURANCE	12 Hrs.
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Definition and Meaning of Insurance, Meaning, nature, and scope of insurance, Concept of risk protection and risk transfer, Importance of insurance in personal and business life, Basic elements of an insurance contract: insurer, insured, premium, policy, risk, and claim - Characteristics of Insurance, Insurance as a risk

transfer mechanism, Pooling of risks and sharing of losses, Contractual nature of insurance, Payment of premium for protection, Uncertainty of events, Compensation and financial security, Legal and regulatory nature of insurance - Principles of Contract of Insurance- General Concepts of Insurance- Insurance and Hedging - Types of Insurance - Insurance Intermediaries - Role of Insurance in Economic Development , Mobilization of savings, Capital formation and investment., Promotion of trade and commerce, Business risk protection, Employment generation, Contribution to financial stability and economic growth.		
Unit-II	LIFE INSURANCE	12 Hrs.
Life Insurance Business, Meaning, nature, and scope of life insurance, Importance and growth of life insurance business, Functions of life insurance companies, Life insurance as protection and investment - Fundamental Principles of Life Insurance- Basic Features of Life Insurance Contracts- Life Insurance Products- Traditional and Unit Linked Policies, Traditional Policies, Unit Linked Insurance Plans (ULIPs) - Individual and Group Policies, Individual Policies, Group Policies- With Profit and Without Profit Policies- Types of Life Insurance Policies- Pension and Annuities- Retirement planning, Types of annuities, Role in financial security after retirement - Reinsurance and Double Insurance, Reinsurance, Double Insurance:		
Unit-III	GENERAL INSURANCE	12 Hrs.
General Insurance Business- Features of general insurance. - Role of general insurance in economic activities -Fundamental Principles of General Insurance - Types of General Insurance, Fire Insurance, Marine Insurance, Motor Insurance, Personal Accident Insurance, Liability Insurance, Miscellaneous Insurance - Claims Settlement, Meaning and importance of claims - Claim procedure - Documentation requirements - Role of surveyors - Settlement process - Reasons for claim rejection.		
Unit-IV	RISK MANAGEMENT	12 Hrs.
Introduction to Risk Management- Meaning and importance of risk management -Relationship between risk and uncertainty- Role of risk management in organizations.-Objectives of Risk Management- Identification and control of risks - Minimizing losses - Ensuring business continuity. Protecting assets and resources - Risk Management Process - Identification and Evaluation of Potential Losses, Sources of risk, Financial losses, Operational losses, Human and environmental risks, Risk assessment techniques - Risk Reduction, Risk avoidance, Risk prevention, Risk control methods, Safety and loss prevention measures - Risk Retention and Risk Transfer - Risk Retention, Risk Transfer - Risk Financing- Meaning and importance, Insurance financing, Self-financing, Captive insurance - Levels of Risk Management - Corporate Risk Management- Personal Risk Management, Personal risk identificationLife and health protection, Asset protection, Retirement and financial planning.		
Unit-V	IRDA ACT, 1999	12 Hrs.

Introduction to IRDA- Establishment of Insurance Regulatory and Development Authority- Need for insurance regulation-Role in development of insurance sector-Purpose of IRDA- Protect policyholder interests. - Regulate insurance companies - Promote orderly growth of insurance business - Ensure fair practices - Duties, Powers, and Functions of IRDA - Registration and regulation of insurers. - Licensing of intermediaries - Protection of policyholders. Regulation of insurance products - Monitoring insurance companies. - Operations of IRDA - Insurance company supervision. - Market development activities. - Regulatory guidelines - Consumer protection mechanisms - Insurance Policyholders' Protection under IRDA- Disclosure of policy information- Fair claim settlement - Grievance redressal mechanism - Policyholder rights and responsibilities.- Exposure and Prudential Norms - Solvency requirements. Investment regulations- Financial reporting standards - Risk management guidelines- Insurance Act, 1938 - IRDA Act, 1999 - Contract-related provisions - Regulatory framework governing insurance operations.

Unit-VI

RECENT TRENDS AND CONTEMPORARY DEVELOPMENTS

This unit is designed for academic enrichment and will be covered during classroom instruction. It is excluded from the University Examination, and no questions will be asked from this unit.

Text Book(s):

1. 1. M. N. Mishra and S. B. Mishra – *Insurance Principles and Practice*, S. Chand Publishing, New Delhi.
2. P. K. Gupta – *Insurance and Risk Management*, Himalaya Publishing House, Mumbai.
3. Nalini Prava Tripathy and Prabir Pal – *Insurance Theory and Practice*, PHI Learning, New Delhi.
4. Dr. K. C. Mishra and C. S. Kumar – *Life Insurance: Principles and Practice*, Cengage Learning.
5. George E. Rejda and Michael J. McNamara – *Principles of Risk Management and Insurance*,

Reference Book(s):

1. 1. C. Arthur Williams Jr., Michael L. Smith and Peter C. Young – *Risk Management and Insurance*, McGraw Hill Education.
2. Mark S. Dorfman and David A. Cather – *Introduction to Risk Management and Insurance*, Pearson Education.
3. Harold D. Skipper Jr. and W. Jean Kwon – *Risk Management and Insurance: Perspectives in a Global Economy*, Wiley.
4. Kenneth Black Jr. and Harold D. Skipper Jr. – *Life and Health Insurance*, Pearson Education.

5. P. S. Palande, R. S. Shah and M. L. Lunawat – *Insurance in India: Changing Policies and Emerging Opportunities*, Response Books.

e Resources:

1. Insurance Regulatory and Development Authority of India (IRDAI) – Insurance regulations, guidelines, reports, and policyholder protection.
[IRDAI Official Website](#)
2. Insurance Institute of India (III) – Insurance education, study materials, and professional resources.
[Insurance Institute of India](#)
3. National Insurance Academy (NIA) – Insurance research, training, and publications.
[National Insurance Academy](#)
4. SWAYAM – Online courses related to insurance, finance, and risk management.
[SWAYAM Online Learning Platform](#)
5. National Digital Library of India (NDLI) – Digital learning resources and reference materials.
[National Digital Library of India](#)

Relationship Matrix for COs, POs and PSOs

Semester	Course code			Title of the course								Hours		Credit
I	PCO26005			Insurance & Risk Management								5		4
Course Outcom es (COs)	Programme Outcomes (POs)											Programme Specific Outcomes (PSOs)		Mean Score of COs
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	
CO1	3	3	2	2	2	1	2	2	3	3	2	3	2	2
CO2	3	3	2	2	2	1	2	2	3	3	3	3	3	2
CO3	3	3	3	2	3	1	2	2	3	3	3	3	3	3
CO4	3	3	3	3	3	2	3	2	3	3	3	3	3	3
CO5	3	3	3	3	3	2	3	2	3	3	3	3	3	3
Mean Overall Score	3	3	2.6	2.4	2.6	1.4	2.4	2	3	3	2.8	3	2.8	2.6

Sem	Course Code	Title of the Course	Course Category	L	T	P	Credits
I	PCO26005	Forensic Accounting & Fraud Detection	Multi Disciplinary Course	4	0	0	4
Pre-Requisite: Basic understanding of accounting concepts and financial transactions.							
Co- Requisite: : Understanding of business environment and financial reporting.							
Progressive Course: Advanced studies in Forensic Accounting, Fraud Investigation, and Risk Management.							
Course Objectives:							
1. To understand the concepts, scope, and importance of forensic accounting in fraud prevention and investigation..							
2. To familiarize students with various types of financial frauds and fraud detection techniques.							
3. To develop knowledge of forensic audit procedures, evidence collection, and investigation methods.							
4. To understand legal, ethical, and regulatory aspects related to forensic accounting and fraud examination.							
5. To analyze emerging technologies and digital tools used in forensic accounting and fraud detection.							
Course Outcomes:							
CO1: Explain the concepts, scope, principles, and objectives of forensic accounting and fraud detection. (K2)							
CO2: Identify different types of financial frauds and apply appropriate fraud detection techniques (K3)							
CO3: Analyze forensic audit procedures, investigation methods, and evidence collection techniques. (K4)							
CO4: Evaluate digital banking services, electronic payment systems, and cybersecurity in banking.(K5)							
CO5: Assess the application of digital forensic tools, data analytics, artificial intelligence, and emerging technologies in fraud detection..(K5)							
Unit-I	INTRODUCTION TO FORENSIC ACCOUNTING					9 Hrs.	
Meaning and Scope of Forensic Accounting – Objectives and Importance – Evolution of Forensic Accounting – Difference between Auditing, Investigation and Forensic Accounting – Role of Forensic Accountant – Professional Skills and Ethics – White Collar Crimes – Financial Crimes – Corporate Governance – Fraud Triangle – Fraud Diamond Theory..							
Unit-II	FINANCIAL FRAUDS AND FRAUD DETECTION					9 Hrs.	
Meaning and Types of Fraud – Occupational Fraud – Financial Statement Fraud – Asset Misappropriation – Corruption – Payroll Fraud – Procurement Fraud – Banking Frauds – Insurance Frauds – Credit Card Frauds – Cyber Frauds – Fraud Risk Assessment – Red Flags of Fraud – Fraud Prevention and Detection Techniques.							
Unit-III	FORENSIC INVESTIGATION AND EVIDENCE COLLECTION					9 Hrs.	

Forensic Audit Process – Planning and Conducting Investigation – Interview Techniques – Evidence Collection – Documentary Evidence – Digital Evidence – Chain of Custody – Data Analysis – Report Writing – Expert Witness – Litigation Support Services – Case Documentation.

Unit-IV	LEGAL AND REGULATORY FRAMEWORK FOR FORENSIC ACCOUNTING AND FRAUD PREVENTION	9 Hrs.
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Companies Act – Indian Penal Code (IPC) – Bharatiya Nyaya Sanhita (BNS) (Overview) – Prevention of Corruption Act – Prevention of Money Laundering Act (PMLA) – Information Technology Act – SEBI Regulations – Whistleblower Policy – Corporate Governance – Professional Ethics – Role of Regulatory Authorities

Unit-V	TECHNOLOGY IN FORENSIC ACCOUNTING AND EMERGING TRENDS	9 Hrs.
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Computer Assisted Audit Techniques (CAATs) – Data Analytics – Artificial Intelligence in Fraud Detection – Machine Learning Applications – Blockchain Technology – Cryptocurrency Frauds – Digital Forensics – Cybersecurity – Continuous Auditing – Forensic Accounting Software – Future Trends in Forensic Accounting.

Unit-VI	RECENT TRENDS AND CONTEMPORARY DEVELOPMENTS
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This unit is designed for academic enrichment and will be covered during classroom instruction. It is excluded from the University Examination, and no questions will be asked from this unit.

Text Book(s):

1. Forensic Accounting and Fraud Examination, John Wiley & Sons, Latest Edition.
2. Principles of Fraud Examination, John Wiley & Sons, Latest Edition.
3. Forensic Accounting, McGraw Hill Education (India), Latest Edition.
4. Forensic Accounting and Financial Fraud, Himalaya Publishing House, Latest Edition.
5. Corporate Frauds and Forensic Accounting, Vikas Publishing House, Latest Edition.

Reference Book(s):

1. Crumbley, D. Larry, Lester E. Heitger & G. Stevenson Smith – *Forensic and Investigative Accounting*.
2. Hopwood, Leiner & Young – *Forensic Accounting and Fraud Examination*.
3. Bologna, Lindquist & Wells – *The Accountant's Handbook of Fraud and Commercial Crime*.

e Resources:

1. <https://www.icaai.org>
2. <https://www.acfe.com>
3. <https://www.ifac.org>
4. <https://nfra.gov.in>
5. <https://www.mca.gov.in>

Relationship Matrix for COs, POs and PSOs

Semester	Course code		Title of the course									Hours		Credit
I	PCO26006		Forensic Accounting & Fraud Detection									5		4
Course Outcomes (COs)	Programme Outcomes (POs)											Programme Specific Outcomes (PSOs)		Mean Score of COs
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	
CO1	3	3	2	2	2	1	2	2	2	2	2	3	2	2
CO2	3	3	2	2	2	1	3	2	2	2	2	3	3	2
CO3	3	3	3	2	3	1	2	3	2	2	3	3	3	3
CO4	3	3	3	2	3	1	2	2	2	2	3	3	3	2
CO5	3	3	3	3	3	1	3	2	3	3	3	3	3	3
Mean Overall Score	3	3	2.6	2.2	2.6	1	2.4	2.2	2.2	2.2	2.6	3	2.8	2.4

Sem	Course Code	Title of the Course	Course Category	L	T	P	Credits
II	PCO26203	ADVANCED CORPORATE ACCOUNTING	Core	3	1	0	4

Pre-Requisite: Basic knowledge of Financial Accounting, Corporate Accounting, and Accounting Principles.

Co- Requisite: Financial Reporting, Company Law, Cost and Management Accounting, and Business Finance.

Progressive Course: Advanced Financial Reporting, Corporate Financial Analysis.

Course Objectives:

1. To provide an in-depth understanding of advanced concepts and practices in corporate accounting and financial reporting.
2. To develop knowledge of accounting procedures relating to company final accounts, valuation, and corporate restructuring.
3. To familiarize students with accounting treatment for amalgamation, absorption, external reconstruction, and liquidation of companies.
4. To enable students to apply relevant accounting standards and legal provisions in the preparation and presentation of corporate financial statements
5. To enhance analytical and problem-solving skills in interpreting corporate accounting information for decision-making and financial evaluation.

Course Outcomes:

CO1: Explain the advanced concepts, principles, and legal provisions relating to corporate accounting and financial reporting.(K2)

CO2: Prepare and present company financial statements in accordance with accounting standards and statutory requirements.(K2)

CO3: Apply accounting procedures for corporate restructuring, including amalgamation, absorption, reconstruction, and liquidation.(K3)

CO4: Analyze and solve complex corporate accounting problems involving valuation, share capital transactions, and financial statement adjustments.(K4)

CO5: Evaluate corporate financial information and interpret accounting reports to support business decisions and professional practice.(K4)

Unit-I	CORPORATE FINANCIAL REPORTING FRAMEWORK	9 Hrs.
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Corporate Financial Reporting: Concepts and Objectives - Regulatory Framework of Corporate Accounting - Companies Act, 2013 – Schedule III Indian Accounting Standards (Ind AS) - International Financial Reporting Standards (IFRS) - Preparation and Presentation of Corporate Financial Statements - Statement of Changes in Equity - Cash Flow Statement (Ind AS 7) - Earnings Per Share (Ind AS 33) - Related Party Disclosures (Ind AS 24)

Unit-II	BUSINESS COMBINATIONS AND CORPORATE RESTRUCTURING	9 Hrs.
Accounting for Business Combinations (Ind AS 103) - Purchase Consideration - Merger and Amalgamation - Acquisition Accounting - Internal Reconstruction - External Reconstruction - Demerger - Corporate Restructuring - Fair Value Measurement - Goodwill and Capital Reserve		
Unit-III	CONSOLIDATED FINANCIAL STATEMENTS	9 Hrs.
Holding and Subsidiary Companies - Preparation of Consolidated Financial Statements - Non-Controlling Interest (Minority Interest) - Goodwill on Consolidation - Cost of Control - Associate Companies - Joint Arrangements Equity Method of Accounting - Consolidated Balance Sheet - Consolidated Statement of Profit and Loss.		
Unit-IV	SPECIALIZED CORPORATE ACCOUNTING	9 Hrs.
Banking Company Accounts - Insurance Company Accounts - NBFC Accounting - Liquidation of Companies - Insolvency and Bankruptcy Accounting - Corporate Valuation - Accounting for Financial Instruments - Share-Based Payments Accounting for Employee Stock Option Plans (ESOPs)		
Unit-V	EMERGING TRENDS IN CORPORATE ACCOUNTING	9 Hrs.
Environmental, Social and Governance (ESG) Reporting - Sustainability Accounting - Integrated Reporting (<IR>) - Business Responsibility and Sustainability Reporting (BRSR) - XBRL Financial Reporting - Artificial Intelligence in Accounting – Blockchain Technology in Accounting - Data Analytics for Financial Reporting - Cloud Accounting - Digital Financial Reporting and Corporate Governance		
Unit-VI	RECENT TRENDS AND CONTEMPORARY DEVELOPMENTS	
This unit is designed for academic enrichment and will be covered during classroom instruction. It is excluded from the University Examination, and no questions will be asked from this unit.		

Text Book(s):

1. Shukla, M.C., Grewal, T.S. & Gupta, S.C. – Advanced Accounts, Vol. II, S. Chand Publishing.
2. Jain, S.P. & Narang, K.L. – Advanced Accountancy (Corporate Accounting), Kalyani Publishers.
3. Maheshwari, S.N. & Maheshwari, S.K. – Corporate Accounting, Vikas Publishing House.
4. Gupta, R.L. & Radhaswamy, M. – Advanced Accountancy, Sultan Chand & Sons.
5. Arulanandam, M.A. & Raman, K.S. – Advanced Accountancy, Himalaya Publishing House.

Reference Book(s):

1. Tulsian, P.C. & Tulsian, Bharat – Corporate Accounting, S. Chand Publishing.
2. Sehgal, Ashok & Sehgal, Deepak – Advanced Accounting, Taxmann Publications.

3. Mukherjee, A. & Hanif, M. – Modern Accountancy, McGraw Hill Education.
4. Gupta, R.K. – Corporate Accounting, Atlantic Publishers.
5. Monga, J.R. – Fundamentals of Corporate Accounting, Mayur Paperbacks.

e Resources:

1. [Institute of Chartered Accountants of India \(ICAI\) Knowledge Portal](https://www.icai.org) - <https://www.icai.org>
2. [Ministry of Corporate Affairs \(MCA\)](https://www.mca.gov.in) - <https://www.mca.gov.in>
3. [National Digital Library of India \(NDLI\)](https://ndl.iitkgp.ac.in) - <https://ndl.iitkgp.ac.in>
4. [e-PG Pathshala](https://epgp.inflibnet.ac.in) - <https://epgp.inflibnet.ac.in>
5. [SWAYAM](https://swayam.gov.in)- <https://swayam.gov.in>

Relationship Matrix for COs, POs and PSOs

Semester	Course code		Title of the course										Hours		Credit
II	PCO26203		ADVANCED CORPORATE ACCOUNTING										5		4
Course Outcomes (COs)	Programme Outcomes(POs)											Programme Specific Outcomes (PSOs)		Mean Score of COs	
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2		
CO1	3	2	2	1	2	-	2	-	2	2	2	3	2	2	
CO2	3	3	2	1	3	-	2	1	2	3	2	3	3	2	
CO3	3	3	2	2	2	-	2	2	2	3	2	3	3	2	
CO4	3	3	3	2	2	-	2	2	2	3	3	3	3	3	
CO5	3	3	2	2	3	1	3	2	3	3	3	3	3	3	
Mean Overall Score	3	2.8	2.2	1.6	2.4	1	2.2	1.75	2.2	2.8	2.4	3	2.8	2.4	

Sem	Course Code	Title of the Course	Course Category	L	T	P	Credits
II	PCC26204	PROGRAMMING LANGUAGES USING C AND C++ (PRACTICAL)	CORE	0	0	4	2

Pre-Requisite: Nil

Co- Requisite: Nil

Progressive Course: Nil

Course Objectives:

1. To develop problem-solving skills by implementing fundamental C programming concepts such as operators, decision-making, and looping constructs.
2. To provide practical experience in modular programming using functions, recursion, pointers, and arrays for solving computational problems.
3. To enable students to apply object-oriented programming concepts including classes, constructors, destructors, function overloading, and inheritance using C++.
4. To develop programming skills in implementing real-world applications using exception handling, file processing, and dynamic programming techniques.
5. To enhance logical thinking, debugging skills, and coding proficiency through hands-on laboratory exercises involving C and C++ programming.

Course Outcomes:

- CO1: Develop C programs using variables, operators, conditional statements, loops, functions, recursion, and pointers to solve basic computational problems. (K3)
- CO2: Design and implement modular programs using arrays, pointers, and user-defined functions to perform data processing tasks efficiently. (K4)
- CO3: Apply object-oriented programming principles by developing C++ programs using classes, constructors, destructors, function overloading, and inheritance. (K3)
- CO4: Build real-world applications incorporating exception handling and object-oriented features to solve practical problems such as payroll and electricity billing systems. (K5)
- CO5: Demonstrate programming competency by designing, testing, debugging, and executing efficient C and C++ programs that meet specified functional requirements. (K5)

LIST OF EXPERIMENTS

1. Write a Program to convert temperature from degree Centigrade to Fahrenheit.
2. Write a Program to find whether given number is Even or Odd.
3. Write a Program to find greatest of Three numbers.
4. Write a Program to display first Ten Natural Numbers and their sum.
5. Write a Program to reverse a number using pointer .

6. Write a Program to find factorial of a number using Recursion.
7. Constructor & Destructor : Write a program to read an integer and find the sum of all the digits until it reduces to a single digit using constructor, destructor and default constructor.
8. Default & Reference Argument : Write a program using function overloading to read two matrices of different data types such as integers and floating point numbers. Find out the sum of the above matrices separately and display the total sum of these arrays individually.
9. Inheritance : Prepare Pay Roll of an employee using Inheritance
10. Exception Handling : Prepare Electricity Bill for customers generating and handling any two Exceptions. Prepare Pay Roll of an employee using Inheritance.

Relationship Matrix for COs, POs and PSOs

Semester	Course code		Title of the course										Hours	Credit
II	PCC26204		Programming Languages Using C and C++ (Practical)										5	2
Course Outcomes (COs)	Programme Outcomes (POs)											Programme Specific Outcomes (PSOs)		Mean Score of COs
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	
CO1	3	3	1	1	3	-	-	-	1	1	2	2	3	2
CO2	3	3	2	2	3	-	-	1	1	2	2	3	3	2
CO3	3	3	2	3	3	-	1	1	1	2	2	3	3	2
CO4	3	3	2	3	3	-	2	2	2	3	2	3	3	3
CO5	3	3	3	2	3	-	2	2	2	3	3	3	3	3
Mean Overall Score	3	3	2	2.2	3	-	1.67	1.5	1.4	2.2	2.2	2.8	3	2.4

Sem	Course Code	Title of the Course	Course Category	L	T	P	Credits
II	PCO26S03	Artificial Intelligence and Digital Commerce Applications	Skill Enhancement Course	3	0	0	3

Pre-Requisite: Digital technologies, and fundamentals of commerce/business.

Co- Requisite: Data Analytics / E-Commerce / Digital Marketing (if offered concurrently).

Progressive Course: Business Analytics, FinTech, Digital Business Strategy,

Course Objectives:

1. To provide knowledge of Artificial Intelligence and its applications in commerce and business.
2. To develop an understanding of AI-driven digital transformation in accounting, banking, finance, marketing, and human resource management.
3. To familiarize students with digital commerce technologies, enterprise applications, and automation tools.
4. To introduce emerging technologies that enhance business efficiency, decision-making, and customer experience.
5. To enable students to evaluate ethical, legal, and security issues associated with AI and digital commerce.

Course Outcomes:

CO1: Explain the concepts and significance of Artificial Intelligence and Digital Commerce. (K2)

CO2: Apply AI tools and digital technologies in various business functions.(K3)

CO3: Analyze AI-enabled business processes and digital commerce platforms.(K4)

CO4: Evaluate automation technologies and emerging digital innovations in commerce.(K5)

CO5: Design AI-enabled business solutions considering ethical and security aspects.(K3)

Unit-I	ARTIFICIAL INTELLIGENCE FUNDAMENTALS	9 Hrs.
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Introduction to Artificial Intelligence - Evolution and History of AI - AI Concepts and Characteristics - Machine Learning Fundamentals - Supervised, Unsupervised and Reinforcement Learning - Deep Learning Concepts - Neural Networks -Natural Language Processing (NLP) -Computer Vision - Generative AI and Large Language Models - Prompt Engineering Basics - AI Applications in Business - AI Ethics, Bias, Transparency and Responsible AI - Challenges and Future Scope of AI

Unit-II	AI TOOLS FOR COMMERCE	9 Hrs.
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AI in Accounting and Auditing - AI-assisted Financial Statement Analysis - AI in Taxation and GST Compliance - AI for Fraud Detection and Risk Assessment - AI in Banking and Digital Lending - AI in

Financial Services and Investment Analysis - AI in Marketing and Customer Relationship Management - AI-powered Customer Segmentation - Recommendation Systems - Predictive Analytics for Sales Forecasting AI in Human Resource Management - AI-based Recruitment and Resume Screening Employee Performance Analytics - AI Chatbots and Virtual Assistants - AI Productivity Tools for Business - AI-assisted Report Writing and Business Communication

Unit-III	DIGITAL COMMERCE TECHNOLOGIES	9 Hrs.
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Introduction to Digital Commerce - Digital Business Models - Business-to-Business (B2B) - Business-to-Consumer (B2C) - Consumer-to-Consumer (C2C) - Consumer-to-Business (C2B) - E-Commerce Platforms - Online Payment Systems - Payment Gateways - Digital Wallets and UPI - Customer Relationship Management (CRM) Enterprise Resource Planning (ERP) - Supply Chain Management Systems - Inventory Management Technologies - Logistics and Warehouse Automation - Cloud Computing in Commerce - Mobile Commerce (M-Commerce) - Social Commerce -Omnichannel Retailing

Unit-IV	AUTOMATION TECHNOLOGIES	9 Hrs.
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Business Process Automation - Robotic Process Automation (RPA) - Workflow Automation - Intelligent Document Processing - AI Chatbots - Virtual Customer Support Systems - Optical Character Recognition (OCR) - Digital Document Management - Business Process Reengineering - Low-Code and No-Code Platforms Workflow Design - Automation in Finance and Accounting - Automation in Human Resource Management -Automation in Customer Service -Automation in Inventory and Supply Chain - Case Studies on Digital Transformation

Unit-V	EMERGING TECHNOLOGIES IN COMMERCE	9 Hrs.
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Blockchain Technology - Smart Contracts - Cryptocurrency Fundamentals - Internet of Things (IoT) - Industrial IoT Applications - FinTech Innovations - Digital Banking Technologies - Open Banking - Cyber Security Fundamentals - Data Privacy and Protection -Cyber Threats and Risk Management -Business Intelligence -Big Data Analytics - Cloud Security - Green Computing - Sustainable Digital Business - Industry 4.0 - Industry 5.0 - Future Trends in AI and Digital Commerce

Unit-VI	RECENT TRENDS AND CONTEMPORARY DEVELOPMENTS	
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This unit is designed for academic enrichment and will be covered during classroom instruction. It is excluded from the University Examination, and no questions will be asked from this unit.

Text Book(s):

1. Stuart Russell & Peter Norvig – Artificial Intelligence: A Modern Approach, Pearson.
2. Bernard Marr – Artificial Intelligence in Practice, Wiley.
3. Dave Chaffey – Digital Business and E-Commerce Management, Pearson.
4. C.S.V. Murthy – E-Commerce: Concepts, Models and Strategies, Himalaya Publishing House

Reference Book(s):

1. Elaine Rich & Kevin Knight – Artificial Intelligence.
2. Ian Goodfellow, Yoshua Bengio & Aaron Courville – Deep Learning.
3. Kenneth C. Laudon & Carol G. Traver – E-Commerce: Business, Technology, Society.
4. Alex Castrounis – AI for People and Business.
5. Thomas H. Davenport & Rajeev Ronanki – Artificial Intelligence for the Real World.

e Resources:

1. Microsoft Learn
2. Google AI Learning Resources
3. IBM SkillsBuild
4. Coursera
5. edX
6. OpenLearn
7. National Digital Library of India (NDLI)

Relationship Matrix for COs, POs and PSOs

Semester	Course code			Title of the course								Hours		Credit
II	PCO26S03			Artificial Intelligence and Digital Commerce Applications								3		3
Course Outcom es (COs)	Programme Outcomes (POs)											Programme Specific Outcomes (PSOs)	Mean Score of COs	
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	
CO1	3	2	2	1	2	-	2	-	2	2	2	3	2	2
CO2	3	3	2	1	2	-	3	1	2	3	2	3	3	2
CO3	3	3	2	2	3	-	2	1	2	3	3	3	3	2
CO4	3	3	2	2	3	-	3	2	2	3	3	3	3	3
CO5	3	3	3	2	3	1	3	2	3	3	3	3	3	3
Mean Overall Score	3	2.8	2.2	1.6	2.6	1	2.6	1.5	2.2	2.8	2.6	3	2.8	2.4

Sem	Course Code	Title of the Course	Course Category	L	T	P	Credits
I	PCO26S03	Artificial Intelligence and Digital Commerce Lab	Skill Enhancement Course	0	0	4	2
Pre-Requisite: Digital technologies, and fundamentals of commerce/business.							
Co- Requisite: Data Analytics / E-Commerce / Digital Marketing (if offered concurrently).							
Progressive Course: Business Analytics, FinTech, Digital Business Strategy,							
Course Objectives:							
<ul style="list-style-type: none"> To provide practical exposure to Artificial Intelligence tools and digital commerce platforms used in modern business environments. 							
<ul style="list-style-type: none"> To develop skills in applying AI-based applications for business decision-making, customer engagement, and process automation. 							
<ul style="list-style-type: none"> To familiarize students with digital commerce technologies, online business platforms, and AI-enabled marketing tools. 							
<ul style="list-style-type: none"> To enhance competency in data handling, AI-assisted content creation, and business analytics through hands-on laboratory exercises. 							
<ul style="list-style-type: none"> To equip students with practical knowledge to implement AI and digital commerce solutions for improving business efficiency and competitiveness. 							
Course Outcomes:							
CO1: Explain the fundamentals of Artificial Intelligence, digital commerce applications, and AI tools used in business environments.(K2)							
CO2: Demonstrate the use of AI-powered applications for content creation, customer support, data analysis, and business communication.(K3)							
CO3: Apply digital commerce platforms and AI-based tools to create, manage, and optimize online business operations.(K3)							
CO4: Analyze business data using AI-enabled analytical tools to support decision-making and improve organizational performance.(K4)							
CO5: Evaluate AI-driven digital commerce solutions and recommend appropriate technologies to enhance customer experience and business growth.(K4)							
Program 1: Use an AI tool to prepare a professional business report on a selected commerce topic with proper formatting and citations.							

Program 2: Analyze the financial statements of a company using AI-assisted spreadsheet or analytics tools and prepare an interpretation report.

Program 3: Import sales data into Microsoft Excel or Power BI and use AI features to identify trends, patterns, and sales forecasts.

Program 4: Analyze customer data and classify customers into different segments based on purchasing behavior using AI-assisted analytics tools.

Program 5: Design a simple AI chatbot using an online chatbot platform to answer frequently asked customer queries for an e-commerce business.

Program 6: Generate AI-assisted promotional content, product descriptions, email campaigns, and social media posts for an online business and evaluate the generated content.

Program 7: Develop an interactive business dashboard using Excel or Power BI to visualize sales performance, inventory status, and customer insights.

Program 8: Create a simple automated workflow for invoice approval, leave management, or customer enquiry processing using Microsoft Power Automate or a similar workflow automation tool.

Program 9: Use AI tools to collect information on an emerging digital commerce topic and prepare a professional presentation with charts, images, and speaker notes.

Program 10: Develop a mini project demonstrating the application of Artificial Intelligence in a commerce domain such as accounting, banking, finance, marketing, taxation, human resource management, inventory management, or digital commerce. Prepare a project report and present the findings through a seminar.

Relationship Matrix for COs, POs and PSOs

Semester	Course code			Title of the course								Hours		Credit
II	PCO26S03			Artificial Intelligence and Digital Commerce Lab								3		2
Course Outcom es (COs)	Programme Outcomes(POs)											Programme Specific Outcomes (PSOs)		Mean Score of COs
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	
CO1	3	2	1	1	—	—	2	2	2	2	2	3	1	1
CO2	3	2	1	1	—	—	2	2	2	2	2	3	1	2
CO3	3	3	2	2	1	—	3	3	3	3	2	3	2	2
CO4	3	3	2	1	1	—	3	2	2	3	2	3	2	2
CO5	3	3	2	3	2	1	3	3	3	3	3	3	3	3
Mean Overall Score	3	2.6	1.6	1.6	1.33	1	2.6	2.4	2.4	2.6	2.2	3	1.8	2

Sem	Course Code	Title of the Course	Course Category	L	T	P	Credits
II	PCO26007	INVESTMENT MANAGEMENT	Disciplinary Elective Course	4	0	0	4

Pre-Requisite: Basic knowledge of Financial Management, Accounting, Business Economics, and Financial Markets.

Co- Requisite:. Security Analysis and Portfolio Management

Progressive Course : Advanced Investment Analysis, Portfolio Management, Wealth Management,

Course Objectives:

1. Understand the concepts, scope, evolution, significance, and functions of industrial relations in modern organizations.
2. Explain the role of trade unions, collective bargaining, workers' participation, and other mechanisms in maintaining effective employee relations.
3. Develop knowledge about industrial disputes, grievance handling procedures, negotiation processes, and conflict resolution techniques.
4. Analyze labour laws, industrial policies, and regulatory frameworks governing employer–employee relationships.
5. Enable students to formulate strategies for promoting harmonious industrial relations, employee welfare, and improved organizational productivity in a changing business environment.

Course Outcomes:

CO1: Explain the concepts, scope, evolution, and significance of industrial relations and its role in maintaining harmonious workplace relationships.(K2)

CO2: Analyze the role of trade unions, collective bargaining, and workers' participation in management for effective employee relations.(K4)

CO3: Apply knowledge of industrial disputes, grievance handling mechanisms, and conflict resolution techniques in organizational situations.(K3)

CO4: Evaluate labour laws, industrial policies, and regulatory frameworks related to employer–employee relationships.(K4)

CO5: Develop strategies for promoting positive industrial relations, employee welfare, and organizational productivity in changing business environments.(K3)

Unit-I	INVESTMENT ENVIRONMENT AND FOUNDATIONS OF INVESTMENT MANAGEMENT	9 Hrs.
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Meaning and Scope of Investment - Nature and Characteristics of Investment Objectives of Investment - Investment Process - Investment Decision-Making Process - Investment Policy Statement (IPS) - Investment Environment - Investment versus Speculation - Investment versus Gambling - Financial Assets

and Real Assets - Investment Life Cycle - Time Value of Money - Risk and Return Concepts - Types of Investment Risk - Systematic Risk - Unsystematic Risk - Risk Measurement Techniques - Risk-Return Trade-off - Inflation and Investment Decisions - Wealth Creation and Wealth Maximization - Personal Financial Planning - Investment Ethics - Behavioural Finance - Investor Psychology - Investor Protection Measures - Financial Literacy - Role of Financial Advisors- Investment Regulations in India - Financial Intermediaries - Digital Investment Platforms - Emerging Trends in Investment Management .		
Unit-II	FINANCIAL MARKETS AND INVESTMENT AVENUES	9 Hrs.
Indian Financial System - Structure of Financial Markets - Money Market - Capital Market - Primary Market - Secondary Market - Stock Exchanges - Securities Trading Mechanism - Listing of Securities - Depository System - Clearing and Settlement Process - Securities Market Indices - Securities and Exchange Board of India (SEBI) - Equity Shares - Preference Shares - Debentures - Corporate Bonds - Government Securities -Treasury Bills - Commercial Papers - Certificates of Deposit - Mutual Funds - Exchange Traded Funds (ETFs) - Index Funds Sovereign Gold Bonds Gold ETFs - Public Provident Fund (PPF) - National Pension System (NPS) - Insurance-Based Investments - Real Estate Investments - Real Estate Investment Trusts (REITs) - Infrastructure Investment Trusts (InvITs) - Commodity Investments - Precious Metal Investments - Alternative Investment Funds (AIFs) - Foreign Portfolio Investments - Global Investment Opportunities - Sustainable Investment Options -ESG Investments - Cryptocurrency – Concept and Risks		
Unit-III	SECURITY ANALYSIS AND VALUATION	9 Hrs.
Security Analysis - Investment Research Process -Economic Analysis - Macroeconomic Indicators - Business Cycle Analysis - Industry Analysis - Company Analysis - Financial Statement Analysis - Ratio Analysis - Cash Flow Analysis - Earnings Analysis - Dividend Policy Analysis - Equity Valuation - Bond Valuation - Intrinsic Value - Dividend Discount Model - Discounted Cash Flow Model - Free Cash Flow Valuation - Relative Valuation Models - Fundamental Analysis - Technical Analysis - Dow Theory - Efficient Market Hypothesis - Random Walk Theory - Chart Analysis - Candlestick Patterns -Trend Analysis - Support and Resistance - Moving Averages - Relative Strength Index (RSI)- MACD - Bollinger Bands - Fibonacci Retracement - Elliott Wave Theory Volume Analysis - AI-Based Stock Prediction - Machine Learning in Investment Analysis- Financial Data Analytics		
Unit-IV	PORTFOLIO MANAGEMENT	9 Hrs.
Portfolio Management - Portfolio Management Process - Portfolio Objectives - Asset Allocation - Portfolio Diversification - Portfolio Risk - Portfolio Return - Portfolio Construction - Efficient Frontier - Modern Portfolio Theory - Markowitz Model -Capital Market Theory - Capital Asset Pricing Model (CAPM) - Arbitrage Pricing Theory (APT) - Security Market Line (SML) - Beta Analysis -Portfolio Optimization Strategic Asset Allocation -Tactical Asset Allocation -Active Portfolio Management -Passive Portfolio Management -Portfolio Revision -Portfolio Rebalancing - Portfolio Performance Evaluation - Sharpe Ratio -Treynor Ratio -Jensen's Alpha -Information Ratio - Sortino Ratio - International Portfolio Diversification		

- Behavioural Portfolio Management - Quantitative Portfolio Management - Robo-Advisory - AI-Based Portfolio Optimization - Investment Risk Management -Stress Testing - Scenario Analysis		
Unit-V	ADVANCED INVESTMENT MANAGEMENT AND EMERGING TRENDS	9 Hrs.
Mutual Fund Industry - Classification of Mutual Funds - Net Asset Value (NAV) -Systematic Investment Plan (SIP) - Systematic Withdrawal Plan (SWP) - Systematic Transfer Plan (STP) - Exchange Traded Funds - Index Investing - Hedge Funds -Venture Capital - Private Equity - Angel Investing - Futures Contracts - Options Contracts - Forward Contracts - Swaps - Derivatives Trading - Hedging Strategies -Arbitrage Strategies - Commodity Derivatives - Currency Derivatives - Wealth Management - Retirement Planning - Estate Planning - Family Office Management Tax Planning for Investors - International Investment Management - Foreign Portfolio Investment - Sustainable Finance - Green Finance - Green Bonds - ESG Investing Socially Responsible Investing - Climate Finance - Carbon Credit Markets -FinTech in Investment Management - Blockchain Technology - Tokenized Securities -Digital Assets - Decentralized Finance (DeFi) - Algorithmic Trading -High-Frequency Trading - Artificial Intelligence in Investment Management - Machine Learning for Portfolio Management - Big Data Analytics - Predictive Analytics - Financial Fraud Detection -Cybersecurity in Financial Markets -Regulatory Technology (RegTech) Ethical Investing - Future Trends in Investment Management		
Unit-VI	RECENT TRENDS AND CONTEMPORARY DEVELOPMENTS	
This unit is designed for academic enrichment and will be covered during classroom instruction. It is excluded from the University Examination, and no questions will be asked from this unit.		
Text Book(s): <ol style="list-style-type: none"> 1. Investment Analysis and Portfolio Management – Prasanna Chandra, McGraw Hill Education. 2. Security Analysis and Portfolio Management – Punithavathy Pandian, Vikas Publishing House. 3. Investment Management – V.K. Bhalla, S. Chand Publishing. 4. Mutual Funds in India: Emerging Issues – H.S. Sadhak, Sage Publications. 5. Investment Management: Security Analysis and Portfolio Management – V.A. Avadhani, Himalaya Publishing House. 		
Reference Book(s): <ol style="list-style-type: none"> 1. Security Analysis and Portfolio Management – Fisher & Jordan, Pearson Education. 2. Investment Management – R.P. Rustagi, Sultan Chand & Sons. 3. Portfolio Management – Kevin, PHI Learning. 4. Mutual Funds: Concepts and Applications – K.G. Shah, New Age International Publishers. 5. Financial Markets and Services – Gordon & Natarajan, Himalaya Publishing House. 		

e Resources:

1. [Securities and Exchange Board of India \(SEBI\) Official Website](#)
2. [Reserve Bank of India \(RBI\) Official Website](#)
3. [Association of Mutual Funds in India \(AMFI\) Official Website](#)
4. [National Stock Exchange of India \(NSE\) Learning Resources](#)
5. [BSE India Official Website](#)

Relationship Matrix for COs, POs and PSOs

Semester	Course code			Title of the course								Hours		Credit
II	PCO26007			INVESTMENT MANAGEMENT								5		4
Course Outcomes (COs)	Programme Outcomes (POs)											Programme Specific Outcomes (PSOs)		Mean Score of COs
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	
CO1	3	2	1	1	1	—	2	2	2	2	2	3	2	3
CO2	3	3	2	2	1	—	3	3	3	2	2	3	2	3
CO3	3	3	2	2	1	—	3	3	3	3	2	3	2	3
CO4	3	3	2	2	1	1	3	2	2	3	2	3	2	3
CO5	3	3	3	3	2	1	3	3	3	3	3	3	3	3
Mean Overall Score	3	2.8	2	2	1.2	1	2.8	2.6	2.6	2.6	2.2	3	2.2	3

Sem	Course Code	Title of the Course	Course Category	L	T	P	Credits
II	PCO26008	ORGANISATIONAL BEHAVIOUR	Disciplinary Elective Course	4	0	0	4

Pre-Requisite: Basic knowledge of Principles of Management

Co- Requisite:. Apply behavioural theories to improve organizational effectiveness

Progressive Course: Human Resource Analytics

Course Objectives:

1. Understand the fundamental concepts, nature, scope, and importance of organisational behaviour and its impact on workplace effectiveness.
2. Explain individual behaviour, personality, perception, attitudes, motivation, and learning processes in organisational settings.
3. Analyze group behaviour, leadership styles, communication processes, and team dynamics for effective organisational performance.
4. Develop knowledge of organisational culture, organisational change, conflict management, and decision-making processes.
5. Apply organisational behaviour concepts and techniques to improve employee performance, job satisfaction, organisational effectiveness, and workplace relationships.

Course Outcomes:

CO1: Explain the concepts, nature, scope, and significance of organisational behaviour and its role in improving organisational effectiveness.(K2)

CO2: Analyze individual behaviour factors such as personality, perception, attitudes, learning, and motivation in organisational situations.(K4)

CO3: Apply knowledge of group behaviour, leadership, communication, and team-building techniques for effective workplace management.(K3)

CO4: Evaluate organisational culture, conflict management approaches, decision-making processes, and change management strategies.(K4)

CO5: Develop strategies to enhance employee performance, job satisfaction, organisational effectiveness, and positive workplace relationships.(K3)

Unit-I	FOUNDATIONS OF ORGANISATIONAL BEHAVIOUR	9 Hrs.
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Introduction to Organisational Behaviour - Nature, Scope and Importance -Evolution of Organisational Behaviour - Emerging Trends in OB - Behavioural Science Disciplines - Challenges of Modern Organizations -Models of Organisational Behaviour - Individual Behaviour in Organizations - Organizational Goals and Individual Goals - Learning Theories - Learning Process -Reinforcement Theory Behaviour Modification - Attitude Formation - Job Satisfaction - Organizational Commitment - Employee

Engagement - Organizational Citizenship Behaviour (OCB) Emotional Intelligence - Positive Organizational Behaviour - Ethics and Behaviour in Organizations		
Unit-II	INDIVIDUAL BEHAVIOUR, PERSONALITY AND MOTIVATION	9 Hrs.
Personality - Determinants of Personality - Personality Theories - Big Five Personality Model - MBTI Framework - Perception Process - Attribution Theory Perceptual Errors - Decision Making Process - Behavioural Decision Making Bounded Rationality - Creativity and Innovation - Values and Beliefs - Work Attitudes - Stress Management - Burnout - Work-Life Balance - Employee Well-being -Motivation - Maslow's Need Hierarchy Theory - Herzberg's Two Factor Theory -McClelland's Need Theory - Alderfer ERG Theory - Vroom's Expectancy Theory -Equity Theory - Goal Setting Theory - Self-Determination Theory -Employee Empowerment		
Unit-III	GROUP BEHAVIOUR, LEADERSHIP AND COMMUNICATION	9 Hrs.
Foundations of Group Behaviour - Types of Groups - Group Development - Team Building - Team Effectiveness - Virtual Teams - Cross Functional Teams -Communication Process - Barriers to Communication - Organizational Communication - Digital Communication - Business Communication Networks- Leadership Concepts - Leadership Traits - Behavioural Theories - Contingency Theory - Situational Leadership - Transformational Leadership - Transactional Leadership - Servant Leadership - Authentic Leadership - Emotional Leadership -Power and Politics - Organizational Politics - Conflict Management - Negotiation Skills - Employee Participation - Quality Circles		
Unit-IV	ORGANIZATIONAL STRUCTURE, CULTURE AND CHANGE MANAGEMENT	9 Hrs.
Organizational Structure - Organizational Design - Departmentation - Centralization and Decentralization - Organizational Culture - Types of Organizational Culture -Organizational Climate - Corporate Values - Organizational Socialization -Organizational Change - Need for Change - Resistance to Change - Managing Resistance - Lewin's Change Model - Kotter's Eight Step Change Model Organizational Development - OD Interventions - Learning Organization -Knowledge Management - Innovation Management - Digital Transformation - Diversity, Equity and Inclusion (DEI) - Employee Wellness Programs - Psychological Safety		
Unit-V	CONTEMPORARY ORGANISATIONAL BEHAVIOUR AND STRATEGIC APPLICATIONS	9 Hrs.
Organizational Effectiveness - Employee Performance Management - High Performance Work Systems - Talent Management - Employee Retention Strategies -Employer Branding - Organizational Justice - Employee Experience Management -Behavioural Economics in Organizations - Artificial Intelligence and Organizational Behaviour - People Analytics - HR Analytics - Digital Workplace - Hybrid Work Culture - Remote Workforce Management - Green Organizational Behaviour -Sustainable Organizations - Corporate Social Responsibility and Employee Behaviour Workplace Ethics - Business Resilience - Organizational Agility - Crisis Management -Future of Work - Behavioural Competencies for Managers - Case Studies on Contemporary Organizational Behaviour		

Unit-VI**RECENT TRENDS AND CONTEMPORARY DEVELOPMENTS**

This unit is designed for academic enrichment and will be covered during classroom instruction. It is excluded from the University Examination, and no questions will be asked from this unit.

Text Book(s):

1. Organisational Behaviour – Stephen P. Robbins & Timothy A. Judge, Pearson Education.
2. Organisational Behaviour – L.M. Prasad, Sultan Chand & Sons.
3. Organisational Behaviour: Text and Cases – V.S.P. Rao, Excel Books.
4. Organisational Behaviour – Fred Luthans, McGraw Hill Education.
5. Essentials of Organisational Behaviour – Stephen P. Robbins, Pearson Education.

Reference Book(s):

1. Organisational Behaviour – K. Aswathappa, Himalaya Publishing House.
2. Human Behaviour at Work: Organisational Behaviour – Keith Davis & John W. Newstrom, McGraw Hill.
3. Organisational Behaviour: Concepts, Controversies, Applications – Debra L. Nelson & James C. Quick, Cengage Learning.
4. Organisational Behaviour and Management – Ivancevich, Konopaske & Matteson, McGraw Hill.
5. Management and Organisational Behaviour – Laurie J. Mullins, Pearson Education.

e Resources:

1. NPTEL – Organisational Behaviour Courses
<https://nptel.ac.in/courses>
2. National Digital Library of India (NDLI)
<https://ndl.iitkgp.ac.in>
3. MIT OpenCourseWare – Management and Organizational Studies
<https://ocw.mit.edu/search/?d=Management>
4. SAGE Journals – Organisational Behaviour Research
<https://journals.sagepub.com>
5. Google Scholar – Organisational Behaviour Research Articles
<https://scholar.google.com>

Relationship Matrix for COs, POs and PSOs

Semester	Course code			Title of the course								Hours		Credit
II	PCO26008			ORGANISATIONAL BEHAVIOUR								5		4
Course Outcom es (COs)	Programme Outcomes (POs)											Programme Specific Outcomes (PSOs)		Mean Score of COs
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	
CO1	3	3	2	2	3	2	3	2	3	3	3	3	2	2
CO2	3	3	3	3	3	2	2	3	3	3	3	3	3	3
CO3	3	3	3	3	3	2	3	3	2	3	3	3	3	3
CO4	3	3	2	3	3	2	3	3	3	3	3	3	3	3
CO5	3	3	3	2	2	3	3	3	3	3	3	3	3	3
Mean Overall Score	3	3	2.6	2.6	2.8	2.2	2.8	2.8	2.8	3	3	3	2.8	2.8

Sem	Course Code	Title of the Course	Course Category	L	T	P	Credits
II	PCO26009	Management Information System	Disciplinary Elective Course	4	0	0	4

Pre-Requisite: Basic knowledge of Computer Fundamentals, Business Management, and Information Technology.

Co- Requisite:. Database Management Systems / Business Analytics / Enterprise Resource Planning (ERP)

Progressive Course : Business Intelligence, Data Analytics, Decision Support Systems, Digital Business Management, Information Systems Audit.

Course Objectives:

1. Understand the basic concepts, structure, and components of Management Information Systems and their role in business organizations.
2. Explain the importance of information, data processing, and information flow for effective managerial decision-making.
3. Analyze various types of information systems such as Transaction Processing Systems (TPS), Decision Support Systems (DSS), and Executive Information Systems (EIS).
4. Develop knowledge of database management systems, system analysis, system design, and information technology infrastructure.
5. Apply MIS concepts to improve organizational efficiency, communication, coordination, and strategic decision-making in business environments.

Course Outcomes:

CO1: Explain the concepts, structure, components, and importance of Management Information Systems in organizations.(K2)

CO2: Analyze the role of information, data processing, and information flow in managerial decision-making.(K4)

CO3: Apply knowledge of different information systems such as TPS, MIS, DSS, and EIS in business scenarios.(K3)

C04: Evaluate database management systems, system analysis, system design, and IT infrastructure for business applications.(K4)

C05: Develop MIS-based solutions to improve organizational efficiency, communication, control, and strategic decision-making.(K3)

Unit-I	CONCEPTUAL FRAMEWORK FOR MANAGEMENT INFORMATION SYSTEMS	9 Hrs.
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An Overview of Management Information Systems- Concept of Management Information Systems - Types of Information Systems - Information Systems Architecture - Need for an Effective Information System - Strategic Role of Management Information Systems - Core Capabilities of Information Systems -

Challenges in Building and Using Information Systems - Constraints in MIS Operation - Pre-requisites for Effective MIS		
Unit-II	INFORMATION AND SYSTEM CONCEPTS	9 Hrs.
<p>Information: Information as Organizational Resource - Dimensions of Information - Types of Information - Sources of Information</p> <p>System: Types of Systems - System Boundary - System Environment – Subsystems - Preventing System Entropy - System Stress and Change</p>		
Unit-III	ORGANIZATION AND INFORMATION SYSTEMS	9 Hrs.
<p>Concept of Organization- Organizational Information Requirements - Information Requirements for Management Functions, Information Requirements at Different Management Levels - Decision Making and Information Systems - Types of Decisions, Decision-making Process - Methods of Deciding among Alternatives - Behavioural Models of Decision Maker - Behavioural Models of Organizational Decision Making -Implications of Decision-making Concepts for Information System Design</p>		
Unit-IV	NATURE AND IMPLICATIONS OF INFORMATION TECHNOLOGY	9 Hrs.
<p>Concept of Information Technology- Information Technology Architecture- Contemporary Development in Information Technology - Functions of Information Technology - Role of Information Technology - Organization-Information Technology Relationship - Impact of Information Technology on Organization - Impact of Organization on Information Technology - Implications of IT for Information System Design</p>		
Unit-V	COMPUTER HARDWARE	9 Hrs.
<p>Computer System : Computer Configuration- Data Representation - Processing Speed - Evolution of Computers - Types of Computers</p> <p>Central Processing Unit : Primary Storage - Arithmetic-Logic Unit - Control Unit</p> <p>Secondary Storage : Magnetic Tape - Magnetic Disk - Optical Disk</p> <p>Input Devices : Keyboard - Pointing Devices - Source Data Automation</p> <p>Output Devices : Monitor – Printer – Plotter - Audio Output Device - Computer Output Microfilm</p>		
Unit-VI	RECENT TRENDS AND CONTEMPORARY DEVELOPMENTS	
<p>This unit is designed for academic enrichment and will be covered during classroom instruction. It is excluded from the University Examination, and no questions will be asked from this unit.</p>		

Text Book(s):

1. Management Information Systems – Kenneth C. Laudon & Jane P. Laudon, Pearson Education.
2. Management Information Systems – Gordon B. Davis & Margrethe H. Olson, McGraw Hill.
3. Management Information Systems – C.S.V. Murthy, Himalaya Publishing House.
4. Management Information Systems – James A. O'Brien & George M. Marakas, McGraw Hill.
5. Management Information Systems – W.S. Jawadekar, Tata McGraw Hill.

Reference Book(s):

1. Management Information Systems: Managing the Digital Firm – Kenneth C. Laudon & Jane P. Laudon, Pearson.
2. Management Information Systems – M.P. Gupta, Tata McGraw Hill.
3. Management Information Systems – Jawadekar W.S., Tata McGraw Hill.
4. Information Systems for Managers – Ashok Arora, Excel Books.
5. Management Information Systems – Davis & Olson, McGraw Hill.

e Resources:

1. NPTEL – Management Information System Courses
<https://nptel.ac.in/courses>
2. National Digital Library of India (NDLI)
<https://ndl.iitkgp.ac.in>
3. MIT Open Course Ware – Information Systems and MIS
<https://ocw.mit.edu/search/?q=information%20systems>
4. Coursera – Management Information Systems Courses
<https://www.coursera.org/browse/business/information-systems>
5. Google Scholar – MIS Research Articles
<https://scholar.google.com>

Relationship Matrix for COs, POs and PSOs

Semester	Course code			Title of the course								Hours		Credit
II	PCO26009			Management Information System								5		4
Course Outcom es (COs)	Programme Outcomes (POs)											Programme Specific Outcomes (PSOs)	Mean Score of COs	
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	
CO1	3	2	1	1	2	-	1	-	2	2	2	3	2	2
CO2	3	2	1	1	3	-	1	1	2	3	2	3	2	2.15
CO3	3	3	2	2	3	-	2	1	2	3	3	3	3	2.54
CO4	3	3	2	2	3	1	2	2	2	3	3	3	3	2.62
CO5	3	3	2	2	3	1	3	2	3	3	3	3	3	2.77
Mean Overall Score	3	2.6	1.6	1.6	2.8	1	1.8	1.5	2.2	2.8	2.6	3	2.6	2.33

Sem	Course Code	Title of the Course	Course Category	L	T	P	Credits
II	PCO26010	Blockchain Applications in Business	Disciplinary Elective Course	4	0	0	4

Pre-Requisite: Commerce, Accounting, and Information Technology.

Co- Requisite: Digital Business, Financial Technology (FinTech)

Progressive Course : Blockchain for Supply Chain Management

Course Objectives:

1. To Understand the fundamental concepts, architecture, and working principles of blockchain technology and distributed ledger systems.
2. To Explain the role of cryptography, consensus mechanisms, smart contracts, and decentralized applications in blockchain-based systems.
3. To Analyze the applications of blockchain technology across various business domains, including banking, supply chain, healthcare, insurance, retail, and e-commerce.
4. To Evaluate enterprise blockchain platforms, blockchain-enabled business models, and their integration with emerging technologies such as IoT, Artificial Intelligence, and cloud computing.
5. To Assess the legal, ethical, security, regulatory, and scalability challenges associated with blockchain adoption, and examine emerging trends and future opportunities in business.

Course Outcomes:

CO1: Describe the fundamental concepts, architecture, types, and consensus mechanisms of blockchain technology.(K1)

CO2: Explain the principles of cryptography, blockchain transactions, smart contracts, decentralized applications (DApps), and enterprise blockchain platforms.(K2)

CO3: Apply blockchain concepts to solve business problems and identify blockchain applications in banking, finance, supply chain management, healthcare, insurance, retail, and e-commerce.(K3)

CO4: Analyze enterprise blockchain solutions, blockchain-based business models, and the integration of blockchain with emerging technologies such as the Internet of Things (IoT), Artificial Intelligence (AI), and cloud computing.(K4)

CO5: Evaluate the legal, ethical, security, regulatory, scalability, and interoperability issues associated with blockchain technology and assess emerging trends and future opportunities in business (K5)

Unit-I	FUNDAMENTALS OF BLOCKCHAIN TECHNOLOGY	9 Hrs.
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Introduction to Blockchain: Concepts, Characteristics, and Evolution .Distributed Ledger Technology (DLT)
 .Blockchain Architecture: Blocks, Transactions, Nodes, and Networks.Types of Blockchain: Public, Private,

Consortium, and Hybrid .Consensus Mechanisms: Proof of Work (PoW), Proof of Stake (PoS), and Byzantine Fault Tolerance (BFT)		
Unit-II	BLOCKCHAIN TECHNOLOGIES AND SMART CONTRACTS	9 Hrs.
Fundamentals of Cryptography: Hash Functions, Digital Signatures, and Public Key Infrastructure .Blockchain Transactions and Wallets .Smart Contracts: Concepts, Features, and Applications .Ethereum and Hyperledger Platforms .Decentralized Applications (DApps) and Blockchain-as-a-Service (BaaS)		
Unit-III	BLOCKCHAIN APPLICATIONS IN BUSINESS	9 Hrs.
Blockchain in Banking and Financial Services .Blockchain in Supply Chain and Logistics Management .Applications in Healthcare, Insurance, and Real Estate .Digital Identity Management and E-Governance .Blockchain in Retail, E-Commerce, and Digital Payments		
Unit-IV	ENTERPRISE BLOCKCHAIN AND BUSINESS MODELS	9 Hrs.
Enterprise Blockchain Solutions and Platforms .Blockchain-Based Business Models and Digital Transformation .Tokenization of Assets and Digital Tokens .Integration of Blockchain with IoT, Artificial Intelligence, and Cloud Computing .Benefits, Challenges, and Adoption Strategies for Organizations		
Unit-V	LEGAL, ETHICAL, AND EMERGING TRENDS IN BLOCKCHAIN	9 Hrs.
Legal, Regulatory, and Compliance Issues .Security, Privacy, and Risk Management in Blockchain .Scalability and Interoperability Challenges .Emerging Trends: Decentralized Finance (DeFi), Non-Fungible Tokens (NFTs), Central Bank Digital Currency (CBDC), and Web3 .Business Case Studies and Future Prospects of Blockchain Technology		
Unit-VI	RECENT TRENDS AND CONTEMPORARY DEVELOPMENTS	
This unit is designed for academic enrichment and will be covered during classroom instruction. It is excluded from the University Examination, and no questions will be asked from this unit.		

Text Book(s):

1. **Imran Bashir**, *Mastering Blockchain*, 4th Edition, Packt Publishing, 2023.
2. **Arshdeep Bahga and Vijay Madisetti**, *Blockchain Applications: A Hands-On Approach*, VPT Publications, 2020.
3. **Melanie Swan**, *Blockchain: Blueprint for a New Economy*, O'Reilly Media, 2015.
4. **Bettina Warburg and Bill Wagner**, *Basics of Blockchain: A Guide for Building Literacy in the Economics, Technology, and Business of Blockchain*, O'Reilly Media, 2021.
5. **Andreas M. Antonopoulos**, *Mastering Bitcoin: Programming the Open Blockchain*, 3rd Edition, O'Reilly Media, 2023.

Reference Book(s):

1. **Narayanan, A., Bonneau, J., Felten, E., Miller, A., and Goldfeder, S.,** *Bitcoin and Cryptocurrency Technologies*, Princeton University Press, 2016.
2. **Campbell R. Harvey, Ashwin Ramachandran, and Joey Santoro,** *DeFi and the Future of Finance*, Wiley, 2021.
3. **Chris Dannen,** *Introducing Ethereum and Solidity*, 2nd Edition, Apress, 2022.
4. **Daniel Drescher,** *Blockchain Basics: A Non-Technical Introduction in 25 Steps*, 2nd Edition, Apress, 2020.
5. **William Mougayar,** *The Business Blockchain: Promise, Practice, and Application of the Next Internet Technology*, Wiley, 2016.

e Resources:

1. **NPTEL – Blockchain Architecture Design and Use Cases**
<https://nptel.ac.in>
2. **IBM Blockchain Learning Resources**
<https://www.ibm.com/topics/blockchain>
3. **Hyperledger Foundation Documentation**
<https://www.hyperledger.org>
4. **Ethereum Developer Documentation**
<https://ethereum.org/en/developers/>
5. **Coursera – Blockchain Specialization (University at Buffalo)**
<https://www.coursera.org/specializations/blockchain>

Relationship Matrix for COs, POs and PSOs

Semester	Course code			Title of the course								Hours		Credit
II	PCO26010			Blockchain Applications in Business								5		4
Course Outcom es (COs)	Programme Outcomes (POs)											Programme Specific Outcomes (PSOs)		Mean Score of COs
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	
CO1	3	2	2	2	3	1	2	1	2	2	2	3	3	2
CO2	3	3	2	2	3	1	2	2	2	2	2	3	3	2
CO3	3	3	3	3	3	2	2	2	2	3	2	3	3	3
CO4	3	3	3	3	3	2	2	2	2	3	3	3	3	3
CO5	3	3	3	3	3	2	3	2	3	3	3	3	3	3
Mean Overall Score	3	2.8	2.6	2.6	3	1.6	2.2	1.8	2.2	2.6	2.4	3	3	2.6

Sem	Course Code	Title of the Course	Course Category	L	T	P	Credits
II	PCO26011	Green Finance	Disciplinary Elective Course	4	0	0	4
Pre-Requisite: Economics, Environmental Studies, and Business Management.							
Co- Requisite:. Sustainable Development, Environmental Economics.							
Progressive Course : Green Banking							
Course Objectives:							
CO1: To provide students with a comprehensive understanding of the concepts, principles, and importance of green finance in achieving sustainable economic development.							
CO2: To familiarize students with green financial instruments, sustainable investment practices, ESG (Environmental, Social, and Governance) frameworks, and climate finance initiatives.							
CO3: To develop the ability to evaluate the role of financial institutions, governments, and international organizations in promoting environmentally responsible financing.							
CO4: To enable students to analyze green banking practices, carbon markets, renewable energy financing, and corporate sustainability reporting.							
CO5: To equip students with the knowledge and analytical skills required to assess green finance policies, sustainable investment opportunities, and emerging trends in environmental finance.							
Course Outcomes:							
CO1: Apply the principles and concepts of green finance to evaluate sustainable business practices and environmentally responsible financial decisions. (K3)							
CO2: Analyze green financial instruments, ESG frameworks, climate finance initiatives, and sustainable investment strategies in different business sectors.(K4)							
CO3: Examine the role of financial institutions, regulatory bodies, and government policies in promoting green finance and sustainable economic development.(K4)							
CO4: Evaluate green banking practices, renewable energy financing, carbon markets, and corporate sustainability reporting for their effectiveness in achieving sustainability goals.(K5)							
CO5: Assess emerging trends, challenges, and opportunities in green finance and recommend suitable sustainable financial solutions for organizations and investors.(K5)							
Unit-I	FUNDAMENTALS OF GREEN FINANCE					9 Hrs.	
Introduction to Green Finance: Concepts, Definition, Evolution, Scope, Importance, and Role in Sustainable Economic Development - Evolution of Sustainable Finance: Transition from Traditional Finance to Green and Climate-Aligned Financial Systems - Sustainable Development Goals (SDGs): Role							

of Finance in Achieving Global Sustainability Targets - Green Economy: Concepts, Principles, Green Growth Strategies, and Low-Carbon Development - Climate Change and Environmental Challenges: Causes, Impacts, Climate Risks, and Financial Implications - Principles of Sustainable Finance: Environmental Sustainability, Social Responsibility, Governance, and Long-Term Value Creation - Green Finance Ecosystem: Stakeholders, Institutions, Regulators, Investors, Governments, and International Organizations - Global Green Finance Frameworks: Paris Agreement, Kyoto Protocol, Net Zero Economy, and Carbon Neutrality.		
Unit-II	GREEN FINANCIAL INSTRUMENTS AND POLICIES	9 Hrs.
Green Bonds: Concept, Features, Types, Issuance Process, Certification Standards, and Market Development - Green Loans: Principles, Frameworks, Sustainability-Linked Loans, and Applications in Green Projects - Sustainable Investment Funds: ESG Mutual Funds, Green ETFs, Impact Funds, and Responsible Investment Strategies - Carbon Finance: Carbon Credits, Carbon Pricing, Carbon Trading, and Carbon Market Mechanisms - Climate Finance: Adaptation Finance, Mitigation Finance, Climate Investment Funds, and International Climate Funds - Green Banking Policies: Sustainable Lending, Green Credit Assessment, Green Deposits, and Environmental Risk Management - Green Finance Regulations: Green Taxonomy, ESG Guidelines, Disclosure Standards, and Sustainable Finance Policies.		
Unit-III	GREEN FINANCE IN BUSINESS AND FINANCIAL INSTITUTIONS	9 Hrs.
Green Banking Practices: Sustainable Banking Models, Green Credit Systems, Digital Green Banking, and Environmental Banking Services - Sustainable Corporate Finance: Green Capital Budgeting, Sustainable Capital Structure, Green Cost of Capital, and Corporate Climate Strategy - ESG Investing: Environmental, Social, and Governance Factors, ESG Integration, ESG Ratings, and Responsible Investment Decisions - Corporate Sustainability Reporting: Sustainability Reporting, Integrated Reporting, GRI Standards, SASB Standards, and IFRS Sustainability Standards - Green Insurance and Risk Management: Climate Insurance, Environmental Liability Insurance, and Sustainable Risk Management - Role of Financial Institutions: Contribution of Banks, Insurance Companies, Investment Firms, and Development Institutions towards Sustainability.		
Unit-IV	GREEN INVESTMENT AND RISK ASSESSMENT	9 Hrs.
Sustainable Investment Strategies: Responsible Investment, Impact Investing, Socially Responsible Investment (SRI), and Long-Term Investment Approaches - Climate Risk Assessment: Physical Risk, Transition Risk, Litigation Risk, and Reputational Risk - Climate Risk Management: Stress Testing, Scenario Analysis, Risk Mitigation Strategies, and Financial Resilience - Environmental and Social Impact Assessment (ESIA): Principles, Processes, and Applications in Green Projects - Renewable Energy Financing: Solar Energy, Wind Energy, Hydrogen Economy, and Clean Energy Investment Models - Green Infrastructure Finance: Sustainable Transport, Smart Cities, Water Management, and Waste Management		

Financing - Circular Economy Financing: Circular Supply Chains, Resource Efficiency, Waste Reduction, and Sustainable Business Models.		
Unit-V	EMERGING TRENDS AND FUTURE OF GREEN FINANCE	9 Hrs.
FinTech for Sustainable Finance: Digital Platforms, Artificial Intelligence (AI), Machine Learning, Big Data Analytics, and Green Financial Innovation - Blockchain in Green Finance: Carbon Markets, Green Tokenization, Smart Contracts, and Transparency in Sustainable Finance - Sustainable Stock Exchanges: Responsible Investing, ESG Disclosure Practices, and Sustainable Market Development - Green Taxonomy: Concept, Objectives, Classification of Sustainable Activities, and Global Frameworks - Sustainability Reporting and Disclosure: ESG Reporting, Climate Disclosure, Carbon Disclosure Project (CDP), and Corporate Transparency - Green Finance Case Studies: Indian and Global Green Finance Initiatives and Best Practices - Challenges and Opportunities in Green Finance: Market Barriers, Regulatory Issues, Investment Opportunities, and Future Growth Prospects - Future of Green Finance: Climate-Tech Investments, Biodiversity Finance, Nature-Based Finance, Digital Sustainability, and Net-Zero Financial Systems.		
Unit-VI	RECENT TRENDS AND CONTEMPORARY DEVELOPMENTS	
This unit is designed for academic enrichment and will be covered during classroom instruction. It is excluded from the University Examination, and no questions will be asked from this unit.		

Text Book(s):

1. **Richard A. Ferri**, *The Green Investor: How to Make Money by Investing in Renewable Energy, Sustainability and the New Green Economy*, McGraw-Hill Education, 2008.
2. **Moorad Choudhry**, *The Principles of Banking*, 3rd Edition, Wiley, 2022. (*Chapters on sustainable and green banking*)
3. **Simon Thompson**, *Green and Sustainable Finance: Principles and Practice*, Kogan Page, 2021.
4. **Marcel Jeucken**, *Sustainable Finance and Banking: The Financial Sector and the Future of the Planet*, Earthscan Publications, 2010.
5. **Paul G. Fisher**, *The Economics of Climate Change and Sustainable Finance*, Palgrave Macmillan, 2023.

Reference Book(s):

1. **OECD**, *Green Finance and Investment: Mobilising Bond Markets for a Low-Carbon Transition*, OECD Publishing, 2017.
2. **World Bank Group**, *Green Bond Impact Report*, World Bank Publications, Latest Edition.

3. **United Nations Environment Programme Finance Initiative (UNEP FI)**, *Principles for Responsible Banking Guidance Document*, Latest Edition.
4. **Malgorzata Burchard-Dziubińska and Tomasz Bernat (Eds.)**, *Sustainable Finance and Green Investments*, Routledge, 2022.
5. **Jeffrey D. Sachs**, *The Age of Sustainable Development*, Columbia University Press, 2015.

e Resources:

1. **United Nations Environment Programme Finance Initiative (UNEP FI)**
<https://www.unepfi.org>
2. **Climate Bonds Initiative**
<https://www.climatebonds.net>
3. **World Bank – Climate Change and Green Finance**
<https://www.worldbank.org/en/topic/climatechange>
4. **Reserve Bank of India (RBI) – Sustainable Finance and Green Banking**
<https://www.rbi.org.in>
5. **International Finance Corporation (IFC) – Green Finance**
<https://www.ifc.org>

Relationship Matrix for COs, POs and PSOs

Semester	Course code		Title of the course										Hours		Credit
II	PCO26011		Green Finance										5		4
Course Outcomes (COs)	Programme Outcomes (POs)											Programme Specific Outcomes (PSOs)		Mean Score of COs	
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2		
CO1	3	2	2	1	1	3	2	1	2	2	2	3	2	2	
CO2	3	3	2	2	2	3	2	2	2	2	2	3	2	2.31	
CO3	3	3	3	3	2	3	2	2	2	3	2	3	3	2.62	
CO4	3	3	3	3	3	3	3	2	2	3	3	3	3	2.85	
CO5	3	3	3	3	3	3	3	2	3	3	3	3	3	2.92	
Mean Overall Score	3	2.8	2.6	2.4	2.2	3	2.4	1.8	2.2	2.6	2.4	3	2.6	2.54	

Sem	Course Code	Title of the Course	Course Category	L	T	P	Credits
II	PCO26012	Global Business Trends	Disciplinary Elective Course	4	0	0	4

Pre-Requisite: Fundamentals of Business Management

Co- Requisite:. Business Environment and Trade Policies

Progressive Course : International Marketing Management

Course Objectives:

1. To understand the fundamental concepts, principles, and evolution of green finance, sustainable finance, ESG, climate change finance, and sustainable development frameworks.
2. To apply knowledge of green financial instruments, sustainable investment products, carbon markets, and climate finance mechanisms in practical financial contexts.
3. To analyze the role of sustainable banking, ESG practices, corporate sustainability, and climate risk management in financial decision-making.
4. To evaluate green policies, sustainable business models, climate finance strategies, and environmental risk management approaches for achieving sustainable growth.
5. To create innovative approaches and solutions using emerging technologies and trends in green finance, including FinTech, AI, blockchain, and digital sustainability tools.

Course Outcomes:

CO1: Describe the fundamental concepts, principles, evolution, and global frameworks of green finance, sustainable finance, ESG, climate change finance, and sustainable development.(K1)

CO2: Explain and apply the concepts of green financial instruments, sustainable investment products, carbon markets, green banking practices, and climate finance mechanisms.(K3)

CO3: Analyze ESG practices, climate risks, environmental risks, social risks, governance risks, and sustainability challenges affecting financial institutions and organizations. (K4)

CO4: Evaluate green investment strategies, sustainable business models, climate finance policies, and responsible financial practices for achieving sustainable development. (K5)

CO5: Assess emerging trends and innovations in green finance, including Artificial Intelligence, blockchain, FinTech, digital green banking, and sustainable financial solutions. (K5)

Unit-I	FOUNDATIONS OF GREEN FINANCE	9 Hrs.
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Concept and Evolution of Green Finance – Principles of Sustainable Finance – Green Economy – Circular Economy – Blue Economy – Environmental Economics – Climate Change and Finance – Sustainable Development Goals (SDGs) – Paris Agreement – Kyoto Protocol – Net Zero Economy – Carbon Neutrality – Triple Bottom Line – ESG Fundamentals – Corporate Sustainability – Sustainable Business Models –

Green Growth Strategy – Climate Risk – Environmental Risk – Social Risk – Governance Risk – Green Financial System – Sustainable Banking – Responsible Investment – Climate Governance – Biodiversity Conservation Finance – Natural Capital Accounting – Ecological Footprint – Sustainable Consumption – Green Development Policies.		
Unit-II	GREEN FINANCIAL INSTRUMENTS AND SUSTAINABLE INVESTMENT	9 Hrs.
Green Bonds – Blue Bonds – Climate Bonds – Sustainability Bonds – Sustainability-Linked Bonds – Transition Bonds – Green Loans – Sustainability-Linked Loans – Green Deposits – ESG Mutual Funds – Green Exchange Traded Funds (ETFs) – Green Real Estate Investment Trusts (REITs) – Infrastructure Investment Trusts (InvITs) – Carbon Credits – Carbon Trading – Carbon Markets – Carbon Pricing – Renewable Energy Certificates – Voluntary Carbon Markets – Compliance Carbon Markets – Climate Investment Funds – Impact Investing – Social Impact Bonds – Green Venture Capital – Sustainable Private Equity – Green IPOs – Sustainable Stock Exchanges – Green Derivatives – Environmental Commodities – Green Crowdfunding.		
Unit-III	SUSTAINABLE BANKING, ESG AND CORPORATE GREEN FINANCE	9 Hrs.
Green Banking – Sustainable Banking Models – Green Credit Assessment – ESG Investing – ESG Ratings – ESG Scorecards – ESG Reporting – ESG Auditing – Business Responsibility and Sustainability Reporting (BRSR) – Integrated Reporting – Sustainability Reporting – Global Reporting Initiative (GRI) Standards – Sustainability Accounting Standards Board (SASB) – IFRS Sustainability Standards – Responsible Lending – Ethical Finance – Sustainable Insurance – Climate Insurance – Sustainable Corporate Governance – Sustainable Capital Budgeting – Green Cost of Capital – Sustainable Working Capital Management – Green Dividend Policy – Green Capital Structure – Corporate Carbon Accounting – Carbon Disclosure Project (CDP) – Sustainable Supply Chain Finance – Responsible Procurement – Green Procurement – Corporate Climate Strategy.		
Unit-IV	CLIMATE FINANCE, RISK MANAGEMENT AND GREEN PUBLIC POLICY	9 Hrs.
Climate Finance – Adaptation Finance – Mitigation Finance – Climate Resilience – Disaster Risk Finance – Green Fiscal Policy – Green Taxation – Carbon Tax – Green Subsidies – Green Budgeting – Sustainable Public Finance – Environmental Public Expenditure – Climate Stress Testing – Green Risk Assessment – Physical Climate Risk – Transition Risk – Litigation Risk – Reputational Risk – Climate Scenario Analysis – Sustainable Infrastructure Finance – Renewable Energy Finance – Water Resource Finance – Waste Management Finance – Biodiversity Finance – Forest Finance – Sustainable Agriculture Finance – Urban Green Finance – Smart City Financing – Public-Private Partnership (PPP) for Green Projects – International Climate Finance Institutions.		
Unit-V	EMERGING TRENDS IN GREEN FINANCE	9 Hrs.

Artificial Intelligence in Green Finance – Machine Learning for ESG Analytics – Big Data Analytics – Green FinTech – Blockchain in Green Finance – Digital Green Banking – Green Digital Payments – Sustainable Cryptocurrency – Green Tokenization – Blockchain-based Carbon Markets – Internet of Things (IoT) for Environmental Monitoring – Smart Contracts for Green Bonds – Satellite Data in Climate Finance – Green Financial Innovation – Green Startups – Sustainable Entrepreneurship – Green Unicorn Companies – Hydrogen Economy Finance – Electric Vehicle Financing – Circular Supply Chain Finance – Green Logistics Finance – Sustainable Tourism Finance – Ocean Finance – Biodiversity Credits – Nature-based Finance – Green Taxonomy – Sustainable Investment Strategies – Global ESG Trends – Climate-Tech Investments – Future of Green Finance.

Unit-VI

RECENT TRENDS AND CONTEMPORARY DEVELOPMENTS

This unit is designed for academic enrichment and will be covered during classroom instruction. It is excluded from the University Examination, and no questions will be asked from this unit.

Text Book(s):

1. Green Finance: A Guide to Green Finance and Sustainable Investing – Simon Thompson, Routledge.
2. Sustainable Finance: A Research Handbook – Marcel Jeucken, Edward Elgar Publishing.
3. Climate Finance: Theory and Practice – Sonia Labatt and Rodney R. White, Wiley.
4. Environmental Finance: A Guide to Environmental Risk Assessment and Financial Products – Sonia Labatt and Rodney R. White, Wiley.
5. Sustainable Banking: Managing the Social and Environmental Impact of Financial Activities – Olaf Weber and Sven Remer, University of Toronto Press.

Reference Book(s):

1. Principles of Sustainable Finance – Dirk Schoenmaker and Willem Schramade, Oxford University Press.
2. Green Finance and Sustainable Development Goals – Muhammad S. Hossain and related academic contributions, Springer.
3. Corporate Sustainability, Social Responsibility and Environmental Management – Markus J. Milne and other contributors, Springer.
4. Sustainable Investing: Revolutions in Theory and Practice – Cary Krosinsky and Nick Robins, Routledge.
5. The Handbook of Climate Finance – J. D. Sachs and related contributors, Springer.

e Resources:

1. [United Nations Sustainable Development Goals \(SDGs\)](#) – Information on SDGs, sustainable development frameworks, and global sustainability initiatives.

2. [UN Framework Convention on Climate Change \(UNFCCC\)](#) – Resources on climate change agreements, climate finance, and international climate policies.
3. [Climate Bonds Initiative](#) – Research reports and data on green bonds, climate bonds, and sustainable finance markets.
4. [Global Reporting Initiative \(GRI\)](#) – Standards and resources for sustainability reporting and ESG disclosures.
5. [International Finance Corporation \(IFC\) Sustainable Finance Resources](#) – Resources on sustainable finance, green investments, and private-sector climate solutions.

Relationship Matrix for COs, POs and PSOs

Semester	Course code		Title of the course									Hours		Credit
II	PCO26012		GLOBAL BUSINESS TRENDS									5		4
Course Outcom es (COs)	Programme Outcomes (POs)											Programme Specific Outcomes (PSOs)	Mean Score of COs	
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	
CO1	3	2	1	1	1	3	2	1	1	1	2	2	1	1.62
CO2	3	3	2	2	2	3	2	1	1	3	2	3	2	2.23
CO3	3	3	3	1	2	3	3	2	2	2	2	3	2	2.38
CO4	3	3	2	3	2	3	3	2	2	3	2	3	3	2.62
CO5	2	3	2	3	3	2	2	2	2	3	3	3	3	2.54
Mean Overall Score	2.8	2.8	2	2	2	2.8	2.4	1.6	1.6	2.4	2.2	2.8	2.2	2.28
	Mean Overall Score													2.2

Sem	Course Code	Title of the Course	Course Category	L	T	P	Credits
I	PCO26901	Cyber Security for Business	Multi Disciplinary Course	3	0	0	3

Pre-Requisite: Fundamentals of Computer Applications

Co- Requisite:. Nil

Progressive Course : Information Security Management / Cyber Law / Digital Business Management / IT Governance

Course Objectives:

1. To Understand the fundamental concepts, principles, and importance of cyber security in business organizations.
2. To Identify common cyber threats, vulnerabilities, and risks affecting digital business environments.
3. To Examine the role of cyber security policies, governance, and risk management in protecting organizational assets.
4. To Analyze the legal, ethical, and regulatory aspects of cyber security, including data privacy and compliance requirements.
5. To Apply appropriate cyber security practices and controls to safeguard business information systems and support secure digital operations.

Course Outcomes:

CO1: Apply fundamental cyber security principles and best practices to protect business information systems and digital assets. (K3)

CO2: Analyze common cyber threats, vulnerabilities, and attack methods to assess risks in business environments. (K4)

CO3: Examine organizational cyber security policies, governance frameworks, and regulatory requirements for effective security management. (K4)

CO4: Evaluate cyber security strategies, risk mitigation measures, and incident response plans to enhance organizational resilience. (K5)

CO5: Recommend appropriate cyber security solutions and controls to address business security challenges and support secure digital transformation. (K5)

Unit-I	INTRODUCTION TO CYBER SECURITY	9 Hrs.
Meaning and Importance of Cyber Security - Information Security and Cyber Security - Cyber Threats and Cyber Attacks - Types of Malware - Phishing - Ransomware - Social Engineering - CIA Triad (Confidentiality, Integrity and Availability) - Cyber Security Frameworks - Need for Cyber Security in Business.		
Unit-II	BUSINESS CYBER RISKS AND DATA PROTECTION	9 Hrs.

Business Information Assets - Risk Assessment And Risk Management - Data Privacy And Data Protection - Identity Theft - Password Management - Access Control - Cloud Security - Network Security - Secure Digital Transactions - Data Backup And Disaster Recovery.

Unit-III	CYBER LAWS AND REGULATORY COMPLIANCE	9 Hrs.
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Information Technology Act, 2000 (India) - Digital Signatures - Electronic Records - Cyber Crimes and Investigation - Intellectual Property Rights in Cyberspace - Privacy Laws - Cyber Ethics - GDPR Overview - Business Compliance Requirements - Role of CERT-In.

Unit-IV	CYBER SECURITY IN DIGITAL BUSINESS	9 Hrs.
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E-Commerce Security - Online Banking Security - Digital Payment Security - Mobile and Internet Banking Risks - Security in FinTech - Social Media Security - Internet of Things (IoT) Security - Artificial Intelligence in Cyber Security - Business Continuity Planning

Unit-V	EMERGING TRENDS AND BEST PRACTICES	9 Hrs.
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Cyber Security Governance - Security Policies and Standards - Employee Cyber Awareness - Incident Response and Cyber Forensics - Ethical Hacking - Blockchain Security - Zero Trust Security Model - Future Trends in Cyber Security - Case Studies on Major Business Cyber Attacks.

Unit-VI	RECENT TRENDS AND CONTEMPORARY DEVELOPMENTS
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This unit is designed for academic enrichment and will be covered during classroom instruction. It is excluded from the University Examination, and no questions will be asked from this unit.

Text Book(s):

1. Cybersecurity for Business – Harold F. Tipton & Micki Krause.
2. Cybersecurity Essentials – Charles J. Brooks, Christopher Grow, Philip Craig & Donald Short.
3. Principles of Information Security – Michael E. Whitman & Herbert J. Mattord.
4. Information Security: Principles and Practice – Mark Stamp.
5. Cybersecurity and Cyberwar: What Everyone Needs to Know – P. W. Singer & Allan Friedman.

Reference Book(s):

1. Computer Security: Principles and Practice – William Stallings & Lawrie Brown.
2. Network Security Essentials: Applications and Standards – William Stallings.
3. Security Engineering – Ross Anderson.
4. Cybersecurity for Executives – Greg Foss.
5. The CERT Guide to Insider Threats – Dawn Cappelli, Andrew Moore & Randall Trzeciak.

e Resources:

1. <https://www.cisa.gov>
2. <https://www.iso.org>
3. <https://www.isc2.org>
4. <https://www.ibm.com/training/security>

Relationship Matrix for COs, POs and PSOs

Semester	Course code		Title of the course										Hours	Credit
II	PCO26901		Cyber Security for Business										5	3
Course Outcomes (COs)	Programme Outcomes (POs)											Programme Specific Outcomes (PSOs)		Mean Score of COs
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	
CO1	3	2	1	1	1	—	2	2	2	2	2	3	2	3
CO2	3	3	2	2	1	—	3	3	3	2	2	3	2	3
CO3	3	3	2	2	1	—	3	3	3	3	2	3	2	3
CO4	3	3	2	2	1	1	3	2	2	3	2	3	2	3
CO5	3	3	3	3	2	1	3	3	3	3	3	3	3	3
Mean Overall Score	3	2.8	2	2	1.2	1	2.8	2.6	2.6	2.6	2.2	3	2.2	3

Sem	Course Code	Title of the Course	Course Category	L	T	P	Credits
II	PCO26902	Sustainability and Green Business	Multi Disciplinary Course	3	0	0	3
Pre-Requisite: Principles of Management							
Co- Requisite:. Corporate Social Responsibility (CSR)							
Progressive Course : Environmental Management							
Course Objectives:							
1. To Understand the concepts, principles, and importance of sustainability and green business practices in the modern business environment.							
2. To Examine environmental challenges, sustainable development goals (SDGs), and the role of businesses in promoting environmental responsibility.							
3. To Analyze green business models, circular economy practices, and sustainable supply chain management for organizational success.							
4. To Evaluate the significance of Environmental, Social, and Governance (ESG) principles, corporate sustainability, and ethical business practices.							
5. To Develop strategies for implementing sustainable and green business initiatives that create economic, social, and environmental value.							
Course Outcomes:							
CO1: Apply the principles of sustainability and green business practices to address environmental and social challenges in business organizations.(K3)							
CO2: Analyze the impact of sustainable development goals (SDGs), environmental regulations, and green policies on business operations and decision-making.(K4)							
CO3: Analyze green business models, circular economy concepts, and sustainable supply chain practices for improving organizational performance.(K4)							
CO4: Evaluate the effectiveness of Environmental, Social, and Governance (ESG) practices, corporate sustainability initiatives, and ethical business strategies.(K5)							
CO5: Evaluate and recommend sustainable business strategies that enhance environmental stewardship, social responsibility, and long-term organizational competitiveness.(K5)							
Unit-I	INTRODUCTION TO SUSTAINABILITY AND GREEN BUSINESS					9 Hrs.	
Meaning and concept of Sustainability - Sustainable Development - Principles of Sustainability - Triple Bottom Line (People, Planet and Profit) - Evolution of Green Business - United Nations Sustainable Development Goals (SDGs) - Business and Environmental Responsibility - Role of Sustainability in Economic Development.							
Unit-II	GREEN BUSINESS PRACTICES AND ENVIRONMENTAL MANAGEMENT					9 Hrs.	

Green Business Models - Green Marketing - Green Supply Chain Management - Circular Economy - Renewable Energy in Business - Resource Conservation - Waste Management - Carbon Footprint - Energy Efficiency - Eco-friendly Products and Services.		
Unit-III	CORPORATE SUSTAINABILITY AND ESG	9 Hrs.
Environmental, Social and Governance (ESG) Framework - Corporate Social Responsibility (CSR) and Sustainability - Stakeholder Engagement - Business Ethics - Sustainability Reporting - Global Reporting Initiative (GRI) - ESG Performance Measurement - Sustainable Investment Practices.		
Unit-IV	SUSTAINABLE BUSINESS STRATEGIES AND INNOVATION	9 Hrs.
Sustainable Business Strategy - Green Innovation - Eco-entrepreneurship - Sustainable Production and Consumption - Sustainable Finance - Green Bonds - Digital Technologies for Sustainability - Climate Risk Management - Case Studies of Sustainable Business Practices in India and Abroad.		
Unit-V	EMERGING TRENDS AND FUTURE OF SUSTAINABLE BUSINESS	9 Hrs.
Climate Change and Business - Net Zero and Carbon Neutrality - Sustainable Cities and Smart Businesses - Green Policies and Environmental Regulations - Challenges in Implementing Sustainable Business Practices - Future Trends in Sustainability - Role of Artificial Intelligence and Technology in Sustainable Development.		
Unit-VI	RECENT TRENDS AND CONTEMPORARY DEVELOPMENTS	
This unit is designed for academic enrichment and will be covered during classroom instruction. It is excluded from the University Examination, and no questions will be asked from this unit.		

Text Book(s):

1. The Business Guide to Sustainability Darcy E. Hitchcock & Marsha L. Willard
2. Natural Capitalism: Creating the Next Industrial Revolution Paul Hawken, Amory B. Lovins & L. Hunter Lovins
3. Cradle to Cradle: Remaking the Way We Make Things William McDonough & Michael Braungart
4. Sustainable Business: Key Issues, Helen Kopnina & John Blewitt
5. Sustainability Principles and Practice, Margaret Robertson

Reference Book(s):

1. Corporate Sustainability and Responsibility, Mark W. McElroy & J. M. van Engelen
2. The Ecology of Commerce, Paul Hawken
3. Green Marketing Management, Robert Dahlstrom
4. Sustainable Value: How the World's Leading Companies Are Doing Well by Doing Good, Chris Laszlo

e Resources:

1. United Nations Sustainable Development Goals (SDGs) – <https://sdgs.un.org/>
2. United Nations Environment Programme (UNEP) – <https://www.unep.org/>
3. Global Reporting Initiative (GRI) – <https://www.globalreporting.org/>
4. World Business Council for Sustainable Development (WBCSD) – <https://www.wbcsd.org/>
5. UN Global Compact – <https://unglobalcompact.org/>

Relationship Matrix for COs, POs and PSOs

Semester	Course code			Title of the course								Hours		Credit
II	PCO26902			Sustainability and Green Business								5		3
Course Outcomes (COs)	Programme Outcomes (POs)											Programme Specific Outcomes (PSOs)		Mean Score of Cos
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	
CO1	3	3	2	2	3	2	3	2	3	3	3	3	2	2.54
CO2	3	3	3	3	3	2	2	3	3	3	3	3	3	2.85
CO3	3	3	3	3	3	2	3	3	2	3	3	3	3	2.85
CO4	3	3	2	3	3	2	3	3	3	3	3	3	3	2.85
CO5	3	3	3	2	2	3	3	3	3	3	3	3	3	2.85
Mean Overall Score	3	3	2.6	2.6	2.8	2.2	2.8	2.8	2.8	3	3	3	2.8	2.79



