



Avinashilingam Institute for Home Science and Higher Education for Women

Deemed to be University Estd. u/s 3 of UGC Act 1956, Category A by MHRD

Re-accredited with 'A++' Grade by NAAC.CGPA 3.65/4, Category I by UGC

Coimbatore-641 043, Tamil Nadu, India

Department of Commerce

M.Com (Computer Applications)

Programme Outcomes:

- PO1.** Apply advanced knowledge and techniques in the emerging field of Commerce.
- PO2.** Acquire advanced cognitive and technical skills to analyse and synthesis complex information and problems.
- PO3.** Ability to apply the acquired advanced theoretical and technical knowledge to analyse real-time problems and formulate evidence-based solution in the field of business, industry and profession.
- PO4.** Capable to conduct systematic research with ethics by applying logical and analytical skills to solve problems and pursue self-paced and self –directed learning.
- PO5.** Embrace and practice constitutional, humanistic, ethical and moral values in life and profession and participate in action leading to development.
- PO6.** Demonstrate the acquired skills towards technology-assisted and rapidly changing work environment to excel as individual and team.

Programme Specific Outcomes:

- PSO1.** Emerge as ethical business leaders, professionals and software developers with the ability to navigate complexities of global markets
- PSO2.** Enrich research aptitude, analytical and technical skills to solve critical business problems
- PSO3.** Capable to apply and innovative technological tools in business to enhance operational Efficiency and proficient decision making



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Coimbatore-641 043, Tamil Nadu, India
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M.Com (Computer Applications)
Scheme of Instruction & Examinations
(For students admitted from 2025-2026 & onwards)

Part	Subject Code	Title of the Paper	Hours of Instruction/ week			Scheme of Examination				
			L	T	P	Duration of Exam (Hrs.)	CIA	CE	Total	Credit
Semester – I										
I	25MCCC01	Business and Human Resource Management	3	-	-	3	40	60	100	3
	25MCCC02	Managerial Economics	3	-	-	3	40	60	100	3
	25MCCC03	Financial Accounting and Reporting	3	1	-	3	40	60	100	4
	25MCCC04	Computerised Accounting	-	-	4	3 Practical	40	60	100	2
	25MCCC05	Object Oriented Programming with C++	3	-	-	3	40	60	100	3
	25MCCC06	Cost and Management Accounting	4	-	-	3	40	60	100	4
	25MCCC07	Computer Applications Practical I –Programming with C++	-	-	4	3 Practical	40	60	100	2
II	25MXCSS1/ 25MXAED1/ 25MXCSR1	CSS/Adult Education/ Community Engagement and Social Responsibility	2	-	-	-	-	-	-	
	25MCCPD1	Professional Development Course: Auditing Practices	3	-						Remarks
		Total	21	1	8					21
Semester – II										
I	25MCCC08	Financial Markets and Services	3	-		3	40	60	100	3
	25MCCC09	Business Research Methods	2	1		3	40	60	100	3
	25MCCC10	Quantitative Techniques for Business	3	-	-	3	40	60	100	3
	25MCCC11	Computer Applications Practical II : Data Analysis using Python	2	-	4	3 Practical	40	60	100	4
	25MCCC12	Income Tax Law and Practice	4	1	-	3	40	60	100	5
	25MCCC13	Computer Applications Practical III–Java Programming	-	-	4	3	40	60	100	2

II		Interdisciplinary Course	4	-	-	3	100		100	4
		Professional Certification Course	-			-	-	-	-	2
	25MXCSS1/ 25MXAED1/ 25MXCSR1	CSS/Adult Education/ Community Engagement and Social Responsibility	2	-	-	2	-	-	100	2
		Total	20	2	8					28
Internship during summer vacation for 30 days										
Semester – III										
I	25MCCC14	Security Analysis and Portfolio Management	3	-	-	3	40	60	100	3
	25MCCC15	Financial Management	3	-	-	3	40	60	100	3
	25MCCC16	Computer Applications Practical IV- Data Analytics using R Programming	2	-	4	3 Practical	40	60	100	4
	25MCCC17	International Business	3	-	-	3	40	60	100	3
	25MCCC18	Business Environment (Self Study)	2	-	-	3	100	-	100	2
	25MCCC19	Automated Data Processing for Business Analytics	2	-	2	3 Practical	40	60	100	3
	25MCCC20	Banking Operations and Management	3	-	-	3	40	60	100	3
	25MCCC21	Mini Project	1	-	-		100	-	100	2
	25MCCC22	Internship	-	-	-		100	-	100	2
II		Multidisciplinary Course	2	-	-	3	100	-	100	2
	25MCCPD2	Professional Development Course- Banking and Financial Institutions	3	-	-	-	100	-	100	Remarks
		Total	24	-	6					27
Semester – IV										
I	25MCCC23	Research/ Project / Thesis/ Patent	-	-	27	-	100	100	200	20
II	25MCCPD3	Professional Development Course- Introduction to Environment, Social and Governance	3	-	-	-	100	-	100	Remarks
		Total	30	-	-					20
Total Credits										96

*L- Lecture T-Tutorial, P- Practical

Other Course to be undergone by the students:

MOOC Course – 2 - 4 credits - Credit transfer may be claimed

Note: Maximum 96+ 2 credits to earn the degree.

**** Students who exit at the end of 1st year shall be awarded a Postgraduate Diploma.**

Courses offered to other Department Students

- **Interdisciplinary Courses offered to the students of School of Arts and Social Sciences and School of Commerce and Management.**

Inter-Disciplinary Course	Subject Code	Semester	Hours of Instruction/ Week	Credit/ Course
1. Accounting with Computer Applications	25MCOI01	II	4	4
2. Commercial Banking Operations	25MCOI02	II	4	4

- **Multidisciplinary Courses offered to the students of other domains.**

Multi Disciplinary Course	Subject Code	Semester	Hours of Instruction/ Week	Credit/ Course
1. E-Commerce	25MCOM01	III	2	2
2. Micro and Small Enterprises	25MCOM02	III	2	2

- **Professional Certification Course offered to the students of any course including Commerce.**

Professional Certification Course	Subject Code	Semester	Total Hours of Instruction (Out of Working Hours)	Credit/ Course
1. Securities Market	25MCOPC1	II	40	2
2. Digital Marketing	25MCOPC2	II	40	2

- **Course offered to MCA students**

Course	Subject Code	Semester	Hours of Instruction/ Week	Credit/ Course
1. Accounting and Managerial Decisions	25MCAC15	III	4	3

Business and Human Resource Management

Semester: I
25MCCC01

Hours of Instruction/Week: 3-L: 3
No. of Credits: 3

Course Objectives:

1. To provide an comprehension of management principles, organisational structures and their applications in business.
2. To equip knowledge of human resource management functions, workforce planning and employee development.
3. To develop insights into leadership, motivation, performance appraisal and organisational behavior for effective people management.

9

Unit 1: Management and Organisation

Functions of Management - Levels of Management – Skills of Management- Scientific Management – Principles of Organisation - Formal and Informal Organisation- Mechanistic and Organic Structures – Main forms of Formal Organisation - **Span of Management - Meaning - Determining Span - Factors influencing the Span of Supervision(Self study).**

9

Unit 2: Authority and Leadership

Concept of Authority, Power, Responsibility and Accountability - Delegation of Authority - Decentralization of Authority. Motivation, Leadership – Concept and Theories. Leadership from the ancient scriptures. **Corporate Governance and Business Ethics(Self study).**

9

Unit 3: Human Resource Management (HRM) and Workforce Planning

Human Resource Management – Concept - Functions- Evolution and growth of HRM- Qualities of good HR Manager- Changing roles of a HR Manager- HRM Models-Environment of HRM- Challenges of a HR Manager- Planning the Human resources-Importance- Human Resource Planning (HRP) - Factors affecting HRP - Steps in HRP - **Job analysis- Job description- Job specification(Self study).**

9

Unit 4: Recruitment and Training

Recruitment and Selection: Nature- Factors- Procurement process- Evaluation and Control Placement- Induction- Objectives of recruitment sources- Internal and External recruitment - Testing- Interviews- Types- Barriers. Training and Development: Orientation-Nature- Process- Career Development- Management development- Assessment of training needs- On the Job training methods- Off the Job Training methods - Evolution of effectiveness of training programmes – **AI enabled recruitment and hiring(Self study).**

9

Unit 5: Compensation and Performance

Compensation Management: Job evaluation; Incentives and fringe benefits. Performance appraisal including 360-degree performance appraisal. Collective bargaining and workers' participation in management. Personality - Perception; Attitudes; Emotions; Group dynamics; Power and Politics; Conflict and negotiation; Stress management. **Organizational Culture: Organizational Development and Organizational Change(Self study).**

Total Hours 45

1. **Aswathappa K., Sadhna Dash (2023).** *Human Resource Management*. Tata McGraw Hill Education India Pvt. Ltd. New Delhi.

- ### Books for Reference:

- Course Outcomes:**

- ### CO – PO Mapping

[illegible]

Managerial Economics

Semester: I
25MCCC02

Hours of Instruction/Week: 3 L:3
No. of Credits: 3

Course Objectives:

1. To understand the market demand and techniques of demand forecasting.
2. To learn about production function and its application on cost.
3. To assess the pricing policies and practices to determine price.

Unit 1: Nature and Scope of Managerial Economics

9

Nature and Scope – Objectives of Business Firm- Business Decisions and Economic Analysis – Insights into Economics from Arthashastra - Gap between Theory and Practice and the Role of Managerial Economist. Fundamental Economic Concepts and Principles – Time Perspective – Managerial Economist – Role and Responsibility. Theory of Consumer Choice : Cardinal Utility Approach- Law of Diminishing Marginal Utility ; Applications and Uses – Principle of Equi-marginal Utility- Consumers Equilibrium- Indifference Curve Analysis of Demand, Properties, – Effects – Giffen Paradox - Marshall's Cardinal Utility Analysis vs. Indifference Curve Analysis – **Application and Uses of Indifference Curve (Self-study).**

Unit 2: Demand Analysis

9

Demand Analysis - Determinants of Market Demand - Demand Distinctions - Demand Estimation for Consumer and Non-consumer Durable Products- Demand Forecasting- Techniques of Demand Forecasting - Recent Trends – Control of Demand. Law of Demand- Exceptions to the Law of Demand - Demand Functions and Demand Curve - Changes in Demand- Elasticity of Demand – Meaning and Importance - **Price Elasticity of Demand - Income Elasticity and Cross Elasticity- Using Elasticity in Managerial Decisions (Self-study).**

Unit 3: Production Theory

9

Factors of Production- Theory of Production – Importance – Production Function – Law of Variable Proportions – Law of Diminishing Returns – Production Function with Two Variable Factors- Isoquants – Types – Production function with all Variable Inputs – Cost of Production and Cost Curves : Concept of Cost – Accounting cost and Economic cost – Short run and long run cost – Fixed and Variable cost – Marginal cost – Average cost - Determinants of cost – Relationship between Average and Marginal cost curves – Cost Output relationship in the short run and in the long run – **Cost functions – Economies and Diseconomies of scale (Self-study).**

Unit 4: Price Determination under Market Conditions

9

Classification of Market – Characteristics of Different Market Structures – Concept of Average and Marginal Revenue – Equilibrium of the Firm and Industry under Perfect Competition – Perfect Competition – Price Determination under Perfect Competition – Pricing Under Imperfect Competitions: Price Determination under Pure Monopoly – Monopoly. Pricing and Output Decisions in the long run and in the short run – Price Discrimination under Monopoly – **Pricing and Output Decisions under Monopolistic Competition – Pricing and Output Decisions under Oligopoly– Kinked Demand Curve Analysis (Self-study).**

Unit 5: Pricing Practices and Business Cycles**9**

Pricing Practices: Pricing policies – Methods of price determination in practice – Pricing of multiple products – Price determination- International price discrimination and dumping, Transfer pricing – Problems in pricing – Price forecasting. Business Cycles: Nature and phases of a Business Cycle: Theories of Business Cycle – Psychological, Profits monetary, Innovation, Cobweb, Samuelson and Hicks Theories. Inflation Definition, Characteristics and Types: Inflation in terms of Demand – Pull and Cost-push Factors; **Effects of Inflation (Self-study).**

Total Hours 45

Discuss relevant case studies

Text Books:

1. **Sankaran S.(2023).** *Managerial Economics*, Margham Publications, Chennai.
2. **Varshney R.L and Maheshwari K.L. (2021).** *Managerial Economics*, Sultan Chand & Sons, New Delhi.

Books for Reference:

1. **Andrew Ashwin, Mark Taylor and N. Gregory Mankiw(2021).** *Managerial Economic*. Cengage Learning.
2. **Baya, Michael R.(2024).** *Managerial Economics and Business Strategy*, McGraw Hill Inc., Newyork.
3. **Baumol William J.(2022).** *Economic Theory and Operations Analysis*, Prentice Hall, London.
4. **Chopra O.P. (2022).** *Managerial Economics*, Tata McGraw Hill, Delhi.
5. **Jain T.R. and Ohri(2022).** *Introductory Macroeconomics and Indian Economic Development*, VK Global Publications Pvt. Ltd.

Course Outcomes:

1. Knowledge about economic theories and principles and their applications in managerial decision making.
2. Understand law of demand and techniques of demand forecasting.
3. Knowledge on production function and its application on cost determination.
4. Knowledge on pricing policies and practices under different market conditions
5. Cognise on theories of business cycles.

CO – PO Mapping

CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3
CO1	H	H	H	M	M	L	H	M	M
CO2	M	M	M	M	M	H	M	H	H
CO3	H	M	H	H	L	H	H	L	M
CO4	H	H	M	M	H	H	M	H	L
CO5	H	M	H	L	H	M	H	M	L

Financial Accounting and Reporting

Semester: I
25MCCC03

Hours of Instruction/Week: 4-L: 3, T: 1
No. of Credits: 4

Course Objectives:

1. To acquire the ability to apply specific accounting standard and legislation to different Transactions and events in preparation and presentation of financial statements.
2. To gain knowledge on valuation of assets and liabilities and economic value added and market value added
3. To get insights on inflation accounting, human resources accounting, environmental accounting, forensic accounting and green accounting

Unit 1: Accounting Standards

10

Accounting Standards : Introduction-Importance–Application of Specific Standards: Contingencies and events occurring after the balance sheet date (Ind AS4) - Net profit or loss for the period, prior period items and changes in accounting policies (Ind AS5) –Construction contracts (Ind AS7) –Revenue recognition (Ind AS9) –Accounting for amalgamations (Ind AS14) – – Related party disclosures (Ind AS18) –Leases (Ind AS19) –Earnings per share (Ind AS20) –Accounting for taxes on income (Ind AS22) –Discontinuing operations (Ind AS24) – Intangible assets (Ind AS26) – **Provisions, contingent liabilities and contingent assets (Ind AS29) (Self study).**

Unit 2: Accounting for Assets and Liabilities and Intangible assets

5

Accounting for Fixed Assets-Components of Cost of Fixed Assets - Recording of Fixed assets of Special types - Depreciation of Fixed assets-Disclosure of Fixed assets in the Financial statements- Valuation of Fixed assets and Current assets - Valuation of Investment-Classification, Measurement and Valuation of Liabilities - **Nature and Features of Intangible assets-Amortization of Intangible Assets-Retirements and Disposals of Intangible assets (Self study).**

Unit 3: Inflation Accounting and Human Resources Accounting

10

Accounting for Price level changes (Inflation Accounting)-Meaning-Approaches to Price Level Accounting-Current Purchasing Power Accounting, Current Cost Accounting, Specific and General Price Level Accounting-Advantages and Disadvantages of Accounting for Price Level changes. Human Resource Accounting-Meaning-Need-Benefits and Limitations-Valuation of Human Resources- Recording and Disclosure in Financial Statements. **Social Responsibility of business-CSR-Meaning of Social Accounting-Approaches-Measurement of Social Cost Benefit (Self study).**

Unit 4: Environmental Accounting, Forensic Accounting and Green Accounting

10

Environment accounting –Concept – Need - Approaches to environment - Elements - Mechanism of Environment accounting - Reporting requirements of Environment Accounting; Forensic Accounting - Forensic Accounting-Frauds in Accounting-Meaning of Forensic Accounting-Difference between Traditional Accounting and Forensic Accounting-Techniques of Forensic Accounting-Detection Techniques used in Forensic Accounting. **Green Accounting-Meaning-Importance-Need for adoption of Green Accounting-Steps for adoption of Green accounting (Self study).**

Unit 5: Economic Value added and Market Value added

Measuring Business Income-Difference between Accounting Income concept and Economic Income concept - Popularity and Limitations of Accounting concept - EVA, MVA Concepts--Need, Evolution- Advantages and drawbacks of EVA - Calculation of EVA, MVA, NOPAT, Calculation of Capital employed - Calculation of Weighted Average Cost of Capital; Concept of Value added statement-Advantages - Distinctions between Value added and EVA-Classification - **Methods of Calculating Value added - Value added statement - Report form - Account form(Self study).**

Total Hours 45**List of Tutorial:**

- | | | |
|----|---|---|
| 1 | Take any five companies and apply Generally Accepted Accounting Principles in recording financial transactions and preparing financial statements. | 2 |
| 2 | Identify any five Public Limited Company and carry out valuation of Fixed assets, current assets and liabilities and make recordings. | 2 |
| 3 | Prepare the treatment of Retirement and disposal of Intangible assets of any hypothetical company. | 2 |
| 4 | Find out any Public Limited Company, prepare Human Resource Income statement to show the contribution of human resources to the organization's profitability. | 2 |
| 5 | Prepare Social accounting of a company using various approaches. | 2 |
| 6 | Prepare inflation-adjusted financial statements of a Public Limited company using CPP method. | 1 |
| 7 | Identify any hypothetical company, analyse EVA of a company over time, find out the trends and factors. | 1 |
| 8 | Prepare Value added statements of a company in different forms. | 1 |
| 9 | Analyse environment disclosure of company using different Environment accounting approaches. | 1 |
| 10 | Conduct a forensic accounting investigation into a company's financial statements. | 1 |

Total Hours 15**Text Books:**

1. Jain S.P. Narang. K.L. Simmi Agrawal and Monika Sehgal (2024). *Advanced Accountancy*, Kalyani Publishers, New Delhi.

Books for Reference:

1. Gupta R.L. (2018). *Advanced Accountancy*, Sultan Chand and Sons, New Delhi.
2. Mukherjee A. (2019). *Modern Accountancy*, Mc.Graw Hill Education. New Delhi.
3. Shukla M.C, Grewal.T.A., Gupta.S.C (2020). *Advanced Accountancy*, S.Chand and Sons, New Delhi.

Course Outcomes:

1. Ability to prepare Financial Statements as per the Indian Accounting Standards.
2. Obtain insight into valuation of assets and liabilities.
3. Acquires skills for preparation of inflation accounting and human resources accounting
4. Understand environmental Accounting, Forensic Accounting and Green Accounting
5. Acquire practical knowledge in determining economic value added and market value added.

CO-PO Mapping

CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3
CO1	H	H	H	H	M	M	M	H	H
CO2	M	H	H	M	M	H	M	H	H
CO3	H	H	H	H	M	H	H	H	M
CO4	H	H	H	M	M	H	H	H	M
CO5	H	M	H	H	H	M	H	H	H

Computerised Accounting

Semester: I
25MCCC04

Hours of Instruction/Week: 4: P:4
No. of Credits: 2

Course Objectives:

1. To expose the students to computer application in the field of accounting
2. To impart knowledge and skill in accounting software.
3. To cater the students on concurrent accounting needs of the industry

List of Practical

1. Creation of new Company-Altering and deleting of companies	4
2. Data and Security Management in Tally.	4
3. Creating Groups and Ledger Types	4
4. Recording transactions in Accounting Vouchers.	4
5. Create and Post Adjusting Journal Entries	4
6. Creation of Stock Group, Category, Items, and Units of Measures	4
7. Distribution of Stock items to different godowns	4
8. Preparation of Bill Wise Purchase and Sale Entries.	4
9. Setting and Enforcing Credit Limit and display of out standings	4
10. Perform Bank Reconciliation Statement.	4
11. Creating and posting GST Transactions	4
12. Display of Profit and Loss Account, Balance Sheet, Inventory Reports and Stock Summary	4
13. Payroll processing of an employee	4
14. Generate a Cash Flow Statement	4
15. Analyze the Performance of an Organization by using Ratio	4
Total Hours	60

Text Books:

1. **Shraddha Singh (2021).** *Tally ERP 9.0*, V&S Publishers, New Delhi.
2. **Tulsian and Bharat Tulsian,P C (2023).** *Fundamentals of Accounting*, McGraw Hill Education (India) Pvt Ltd, New Delhi.

Books for Reference:

1. **Ashok K Nadhani (2022).** *Tally.ERP 9 Made Simple Basic Financial Accounting*, BPB Publication, New Delhi.
2. **Kogent Learning Solutions Inc. (2021)** *Tally.ERP 9 in Simple Steps*, Wiley India Private Limited, New Delhi.
3. **Nadhani (2021),** *Mastering Tally.ERP 9*, BPB Publication, New Delhi.

Course Outcomes:

1. Obtain Advanced Bookkeeping Skills
2. Able to Perform Bank Reconciliations and Maintain Financial Accuracy
3. Competent to Generate Key Financial Reports
4. Capable to Create and Manage Payroll Systems
5. Ability to Interpret and Analyze Financial Statements and Reports to Support Business Decision-Making.

CO-PO Mapping

CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3
C01	H	H	H	L	M	H	H	M	H
C02	H	H	H	L	M	H	H	M	H
C03	H	H	H	L	M	H	H	M	H
C04	H	H	H	L	M	H	H	M	H
C05	H	H	H	L	M	H	H	M	H

Object Oriented Programming with C++

Semester: I
25MCCC05

Hours of Instruction/Week:3:3L
No. of Credits:3

Course Objectives:

1. To understand the advanced features of OOPs
2. To learn the syntax and semantics of the C++ programming language.
3. To impart the skill on file management techniques

Unit 1: Concepts of OOP

9

Evaluation of Programming Paradigm – Elements of Object-Oriented Programming - Merits and Demerits of OOP – Popular OOP Languages – C++ at a Glance – Applications of C++ - C++ Statements – Structure of C++ Program. Data Types – Character Set: Token, Identifiers and Keywords – Variables – **Operators and Expressions (Self Study).**

Unit 2: Control Flow Statements and Functions

9

Control Flow Statements: IF, IF... Else, Nested If... Else, Switch Statement, For loop, While..loop, do.. while loop, Break Statement, Continue Statement and Go to Statement. Arrays: Operations on Arrays – Multidimensional Arrays – Strings – String Manipulations. **Functions: Function Components – Library Functions – Inline Functions – Function Parameter Passing (Self Study).**

Unit 3- Classes and Objects

9

Classes and Objects – Class Specification – Declaring Class Objects– Defining Member Functions – Data Hiding – Friend Functions and Friend Classes. Constructor – Parameterized Constructors – Constructor Overloading – Destructors –**Order of Constructor and Destructor – Copy Constructor (Self Study).**

Unit 4: Inheritance and Polymorphism

9

Operator Overloading – Over Loadable Operators – Rules for Overloading Operators – Data Type Conversion - Inheritance: Types of Inheritance– Benefits of Inheritance- Pointers – **Virtual Functions – Abstract Classes –Polymorphism (Self Study).**

Unit 5: File Management

9

Data File Operations: Opening of File – Closing of File – Reading/Writing from a File – Structures – Errors: logical error and Syntactic error - Exception : Synchronous Exception and Asynchronous Exception - Exception handling: try, throw, catch- **Classes and File Operations (Self Study).**

Total Hours 45

Text Book:

1. **Balagurusamy. E (2021).** *Object Oriented Programming with C++*. Tata McGraw Hill Publishing Company Ltd.

Books for Reference:

1. **Bjarne Stroustrup(2022)**C++ Programming Language, Pearson Education.
- 2.**Dinesh Veerma (2019), C++ Programming - BCS-031** Gully baba Publishing House.

Course Outcomes:

1. Demonstrate the concepts of object-oriented programming.
2. Define control flow statements to construct a program.
3. Impart knowledge on dynamic memory management.
4. Employ code reusability knowledge for application-based software.
5. Define the modules to handle large volume of data by applying management techniques

CO-PO Mapping

CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3
CO1	H	H	H	H	H	M	H	H	M
CO2	H	H	H	H	M	H	M	H	H
CO3	H	H	H	H	H	H	H	H	M
CO4	H	H	H	M	H	H	M	H	H
CO5	H	H	H	M	H	H	H	M	H

Cost and Management Accounting

Semester: I
25MCCC06

Hours of Instruction/Week: 4-L: 4
No. of Credits: 4

Course Objectives:

1. To provide knowledge of cost accounting principles and recording systems.
2. To develop skills in financial analysis, budgeting and cost volume profit analysis for effective decision-making.
3. To equip students with cost and management techniques.

Unit 1: Accounting System

12

Accounting system for recording costs - Cost ledger accounting - Overview of Cost and Management Accounting- Role of Cost and Management in decision-making- Cost Category - Preparation of cost sheet- Integral accounting. Specific order costs - Job costing - Batch costing - Contract costing.

Unit 2: Cost Management Techniques

12

Operation is costing - Unit or output costing - Uniform Costing- Process costing - Service Costing. Need for cost management; Cost control and cost reduction; Balance Scorecard, Total Quality Management, Just in Time(JIT), Supply Chain Management, Enterprise Resource planning (ERP), Theory of Constraints, Bench Marking, **Business Process Re-engineering, Management Control System (Self-study).**

Unit 3: Ratio Analysis, Fund Flow and Cash Flow Analysis

12

Ratio Analysis - Nature and significance - Analysis of liquidity, efficiency, profitability, and solvency of the concern - Limitations of ratio analysis. Funds Flow and Cash Flow Analysis: Meaning and Concept - Significance - Schedule of changes in working capital - Statement of sources and application of funds - Meaning and classification of cash flows - Uses and significance of cash flow statement - **Preparation of cash flow statement (IndAs 3) - Comparison between funds flow and cash flow statement - Limitations of cash flow statement (Self-study).**

Unit 4: Marginal Costing and Cost Volume Profit Analysis

12

Marginal costing - Characteristics and Assumptions of marginal costing - Marginal costing vs. absorption costing - Profit-Volume ratio - Cost-Volume- Profit analysis - Break-even analysis - Break-even charts - Managerial applications of marginal costing - Advantages and limitations of marginal costing. Budgeting and Budgetary Control : Nature - Objectives of Budgeting and Budgetary control - Determination of key factors - Classification of budgets - Preparation of functional, fixed, flexible and master budget - **Advantages and limitations of budgetary control - Performance budgeting - Zero-base budgeting - Activity based budgeting - Rolling over budgets (Self-study).**

Unit 5: Standard Costing and Variance Analysis

12

Meaning of standard cost and standard costing - Steps involved in standard costing - Type of Standards - Setting of standards - Analysis of variances - Direct material, direct labour and overhead variances - Sales variances - Accounting treatment of variances. Responsibility Accounting: meaning - Features - Steps involved in responsibility accounting - **Responsibility Centres - Types of Responsibility Centres (Self-study)** - Transfer pricing - Importance - Methods of transfer pricing.

Total Hours 60

Text Books:

1. **Arora M.N. (2024).** *A Textbook of Cost and Management Accounting*, Vikas Publishing House Pvt. Ltd, New Delhi.
2. **Jain S.P., Narang K.L. Simmi Agarwal and Monika Sehgal (2024).** *Cost and Management Accounting*, Kalyani Publishers, New Delhi.

Books for Reference:

1. **Maheshwari S.N. and Mittal S.N. (2024).** *Cost Accounting: Theory and Problems*, Shree Mahavir Book Depot, New Delhi.
2. **Manoj Trivedhi R. P. (2025).** *Cost Control and Management Accountings*, Pankaj Publishers, New Delhi.
3. **Reddy T.S. and Reddy Y.H.P (2020).** *Cost and Management Accounting*, Margham Publishers, New Delhi

Course Outcomes:

1. Apply various costing methods to determine and control costs effectively.
2. Apply advanced cost management techniques to enhance organizational efficiency
3. Analyze financial statements using ratio analysis, fund flow and cash flow analysis for better decision making.
4. Utilize marginal costing and cost-volume-profit analysis for business planning and strategy
5. Implement variance analysis to monitor and improve financial performance.

CO – PO Mapping

[illegible]

Computer Applications Practical I – Programming with C++

Semester: I

25MCCC07

Hours of Instruction/Week: 4- P: 4

No. of Credits: 2

Course Objectives:

1. To identify the Evaluation of Programming Paradigm and Inheritance. Learn the Applications of C++.
2. To learn the Data types of character sets and variables Else, for loop, While. Loop, while loop, break statement, switch statement, continue statement and go to statement.
3. To identify the Classes and objects its objects, specifications and data hiding.

List of Practical:

1. I/O and Looping Statement	5
2. Function Pointers	5
3. Class and objects	5
4. Constructor and Destructor	5
5. Operator Overloading	5
6. Function Overloading	5
7. Compute Simple Interest and Compound Interest	5
8. Friend Function	5
9. Cost Sheet using Inheritance	5
10. EOQ and Stock Level	5
11. Calculate Contribution, P/V Ratio, BEP, Margin of Safety	5
12. File I/O Stream	5
Total Hours	60

Text Book:

1. Balagurusamy. E (2021). *Object Oriented Programming with C++*. Tata McGraw Hill Publishing Company Ltd.

Books for Reference:

1. Bjarne Stroustrup(2022)C++ Programming Language, Pearson Education.
- 2.Dinesh Veerma (2019),C++ Programming - BCS-031 Gully baba Publishing House.

Course Outcomes:

- 1:Able to understand and apply various object oriented features.
- 2:Able to know concepts of operator overloading, function overloading & polymorphism.
- 3: Apply C++ features such as class, objects, constructors, destructors, inheritance and templates in program design and implementation.
- 4:Develop applications using stream I/O and file I/O.
- 5:Demonstrate the different File operations for storing and handling data.

CO-PO Mapping

CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3
CO1	H	H	H	H	H	M	H	H	M
CO2	H	H	H	H	M	H	M	H	H
CO3	H	H	H	H	H	H	H	H	M
CO4	H	H	H	M	H	H	M	H	H
CO5	H	H	H	M	H	H	H	M	H

Professional Development Course

Auditing Practices

Semester: I

25MCCPDI

Hours of Instruction/Week: 3, L: 3

No. of Credits: Remarks

Course Objectives:

1. To understand the importance of different types of audit.
2. To know the procedure of internal control and audit programme.
3. To acquire the knowledge on preparation of audit report.

Unit 1: Introduction

10

Auditing: Meaning and Definition– Distinction between Auditing and Accounting - Objectives - Advantages and Limitations of Audit - Scope of Audit - Classifications of Audit – Audit Planning - Meaning. Audit programme – Meaning – Objectives and Contents. Audit Note Book, contents, Usefulness of Audit Note Book - Audit working papers - meaning. Ownership and Custody – Test checking and Routine checking - Meaning. Internal control –Meaning – Definition – Objectives – Technique for evaluation of Internal Control System. **Internal check – Meaning - Objectives difference between Internal control, Internal check and Internal Audit(Self study).**

Unit 2: Vouching and Verification

10

Vouching – Meaning and Definitions - Objectives. Trading Transactions – Audit of Ledger Scrutinizing of ledgers – Vouching of cash Receipts and Payments - Vouching of outstanding Assets and Liabilities – Verification – Meaning - Objectives and Process – **Valuation of Assets and liabilities – Distinction between Verification and Valuation (Self study).**

Unit 3: Audit and Accounting Standards

10

Types of Audit – Statutory Audit – Concurrent Audit – Stock Audit – Cost Audit – Secretarial Audit – CAG Audit – Management Audit. Accounting Standards – Standards on Auditing Standards on Internal Audit – Penal Provisions – Role of National Financial Reporting- Authority (NFRA)(Self study).

Unit 4: Auditors and Audit Report

10

Auditor: Appointment – Procedures – Eligibility and Qualifications – Powers and Duties – Rotation and Removal of Auditors– Resignation of Auditors – Remuneration of Auditors - Audit report –Preparation and presentation. Auditor's Responsibilities and liabilities towards Shareholders, **Board and Audit Committee - Restriction on other Services (Self study).**

5

Unit 5: Recent Trends in Auditing

EDP Audit – Meaning – Division of auditing in EDP environment. Impact of Computerization.

Total Hours

45

Text Books:

1. **Dingar Pagare (2020).** *Auditing*, S.Chand& Sons, New Delhi.
2. **Tandon B.N., Sudarsanam and Sundharabahn. S. (2023).** *A Hand book of Practical Auditing*, S.Chand & Sons, New Delhi.

Books for Reference:

1. **Kumar R., & Sharma V. (2015).** *Auditing: Principles and practice*. PHI Learning Pvt. Ltd..
2. **Pratt, M., Van Peursem, K., & Garg, M. (2022).** *Auditing theory and practice*. Cengage AU.
3. **Saxana (2022).** *Principles of Auditing*, Himalaya publishing House, New Delhi.
4. **Sharma T.R. (2021).** *Auditing*, Sahitya Bhawan, New Delhi.

Course Outcomes:

1. Gain knowledge on different types of auditing in an organization.
2. Acquire knowledge on preparation and procedure of audit, audit programme and fundamental principles for internal check.
3. Acquire knowledge on the verification techniques of assets, liabilities and its valuation for internal and external audit.
4. Understand the law relating to appointment, rights, duties and liabilities of an auditor and preparation of audit reports.
5. To understand the general approach of audit in EDP environment.

CO-PO Mapping

CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3
CO1	H	H	H	H	H	M	H	H	M
CO2	H	H	H	H	M	H	M	H	H
CO3	H	H	H	H	H	H	H	H	M
CO4	H	H	H	M	H	H	M	H	H
CO5	H	H	H	M	H	H	H	M	H

Financial Markets and Services

Semester: II

Hours of Instruction/Week: 3 - L: 3

25MCCC08

No. of Credits: 3

Course Objectives:

1. To understand the Structure of Indian Financial System.
2. To learn the Operations of Financial Markets.
3. To get Familiarity on various Financial Services offered.

Unit 1: Financial System and Money Market

9

Indian Financial System: Meaning – Objectives – Structure – Functions – Classifications- Components- Role in the Indian Economic Development - Financial Sector Reform- Money Market - Significance-Instruments of Money Market including Call Money, Commercial Bills, Commercial Papers, Certificates of Deposits, Repo and Reverse Repo, Money Market Mutual Funds (MMMFs), **Money Market Derivatives and Primary Dealers. (Self-Study).**

Unit 2: Capital Market and SEBI

9

Capital Market – Meaning - Structure, Instruments of Capital Market; Primary Market: Functions – Methods of Floating New Issues – Intermediaries including Merchant Bankers, Underwriters, Bankers, Brokers and Registrars to the Issue, Debenture Trustees, and Portfolio Managers; Secondary Market: Listing and Online Trading of Securities – Categories of Shares – Primary Market Vs. Secondary Market – Central Depository Services Limited (CDSL) and National Securities Depository Limited (NSDL) - **Securities and Exchange Board of India (SEBI) –Functions – Powers.(Self-study).**

Unit 3: Merchant Banking

9

Origin and evolution – Scope – Functions – Commercial banking vs. Merchant banking- SEBI Regulations on Pre-issue and Post- Issue, **Obligations of Merchant Banker. (Self-Study).**

Unit 4: Credit Rating and Factoring

9

Credit Rating - Significance – Features – Process of credit rating – Advantages and drawbacks of credit rating- Rating Methodology of CRISIL, CARE, ICRA, FITCH; SEBI regulations on Credit Rating; Factoring -Mechanism – Functions – Types; Factoring Vs. Bills Discounting – **Legal Aspects of Factoring Agreement (Self-Study).**

Unit 5: Venture Capital Financing and Mutual Funds

9

Venture Capital Financing - Features – Stages of Venture Capital Financing (VCF) – Financial Analysis – Investment Nurturing - Types – Exit route –Management buy-ins and management buy-outs – Mezzanine Finance – VCF Scenario in India – SEBI Regulations on VCF; Mutual Funds: Concept – Classification of Mutual Funds – Organization and management – **Mutual Funds Evaluation – SEBI Guidelines on Mutual Funds (Self-study).**

Total Hours

45

Text Books:

1. **Bharathi V. Pathak (2023)**, *Indian Financial System*. Pearson Education. Bangalore,
2. **Bhole I. M (2022)**. *Financial Markets and Instructions*. Tata McGraw Hill. New Delhi.

Books for Reference:

1. **Khan M.Y (2023)**. *Indian Financial System*. Tata McGraw Hill. New Delhi.
2. **Manchi Raju H R (2023)**. *Merchant Banking*. Wiley Easter Ltd. New Delhi.
3. **Shanmugham (2023)**. *Financial Services*. Wiley India Private , Bangalore.

Course Outcomes:

1. Gain knowledge on Indian Financial System.
2. Obtained knowledge and application of capital market operations.
3. Impart knowledge on Merchant Banking.
4. Acquainted on Credit Rating and Factoring.
5. Familiarity and Operational Skill in Venture Capital Financing.

CO – PO Mapping

CO / PO	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3
CO 1	H	H	M	M	L	M	H	H	H
CO 2	H	H	M	M	L	M	H	H	H
CO 3	H	H	M	M	L	M	H	H	H
CO 4	H	H	M	M	L	M	H	H	H
CO 5	H	H	M	M	L	M	H	H	H

Business Research Methods

Semester: II
25MCCC09

Hours of Instruction/Week: 3 -L: 2, T: 1
No. of Credits: 3

Course Objectives:

1. To obtain knowledge of Business Research
2. To gain effective knowledge on Problem solving and the Statistical Tools
3. To gain knowledge on Publication Ethics and Citation Enhancement

Unit 1: Introduction of Research

6

Research- Meaning - Definition – Characteristics –Objectives – Criteria for a Good Research Problem – Types– Applied Research, Descriptive Research, Historical Research, Exploratory Research, Experimental Research, Case Study Research, Survey Research and Inter-disciplinary Research. Research Problem – Selecting and Defining the Problem – **Research in Functional Areas of Business – Production, Marketing, Finance(Self – Study).**

Unit 2: Research Design

6

Research Design – Factors affecting research design – Types, Sampling Design – Meaning – Types of Sampling Design – Probability and Non – Probability Sampling – **Sampling Design (Self – Study).**

Unit 3: Measurement and Scaling

6

Measurement Scales – Tests of Sound Measurement. Scaling – Important Scaling Techniques. Data Collection – Primary – Secondary. Personal and Public Documents – Tools for primary Data Collection – Questionnaire and Schedules – Contents Analysis, Steps in Framing Questionnaire. Interview – Types, Pilot Study – Pre– Testing, Secondary Data – Sources (Self – Study).

Unit 4: Processing of Data

6

Data Processing – Steps in Data Processing – Editing – Coding – Classification – Transcription and Tabulation. Measures of Central Tendency – Measures of Dispersion, – Trend– Correlation and Regression - Testing of Hypothesis: Hypothesis – Formulation of Hypothesis – Types of Hypothesis – Functions of Hypothesis - Parametric Test – Analysis of Variance (ANOVA) and T – Test - Non–Parametric Test – Chi-square test – Z test – Mann-Whitney U Test - The Kruskal – Wallis Test – WilCoxon Signed Rank Test using Statistical Analysis Software. Interpretation – Techniques Report Writing – Significance of Report Writing – **Types of Reports – Steps in Drafting Research Report(Self – Study).**

Unit 5: Publication Ethics

6

Introduction to Philosophy – Definition, Nature and Scope – Concept – Branches – Ethics: Definition – Moral Philosophy – Nature of Moral Judgments and Reactions – Ethics with Respect to Science and Research, Intellectual Honesty and Research Integrity – Scientific Misconducts: Falsifications – Fabrication, and Plagiarism (FFP), Redundant Publications: Duplicate and Overlapping Publications, Salami Slicing, Selective Reporting and Misrepresentation of Data, Open Access Publishing, Publication Misconduct, Databases and Research Metrics, Indexing Databases, Citation Databases: Web of Science, Scopus, Research Metrics, Impact Factor of Journal as Per Journal Citation Report, SNIP, SJR, IPP, Cite, **Score. Metrics: H–Index, G Index, I10–Index, Altmetrics (Self – Study).**

List of Tutorial:

- | | |
|---|---|
| 1. Conduct a case study on a successful business and identify key factors contributing to its success. | 1 |
| 2. How can businesses leverage research to strengthen their competitive edge in the industry? | 1 |
| 3. Develop a research proposal for investigating customer loyalty in an e-commerce platform. | 1 |
| 4. Analyse a company's production process and suggest research-based improvements for efficiency. | 1 |
| 5. Design a simple random sampling process for selecting 100 students from a school of 1000 students. | 1 |
| 6. A sociologist wants to study the lifestyle of street vendors in an urban area- Which sampling method would be most appropriate: stratified, quota, or snowball? Why? | 1 |
| 7. Design a market research study that incorporates multiple scaling techniques. | 1 |
| 8. Design a pilot study plan for researching public opinion on electric vehicles. | 1 |
| 9. Compare qualitative and quantitative methods of primary data collection with suitable examples. | 1 |
| 10. Perform data editing and coding on a small dataset and prepare a report. | 1 |
| 11. Discuss the ethical implications of falsification, fabrication, and plagiarism in academic research. | 1 |
| 12. How can you check if a journal is indexed in Scopus or Web of Science? Demonstrate the steps for verifying this information. | 1 |
| 13. Explore Scopus and find the top-cited journals in a specific discipline. | 1 |
| 14. Analyze a research article and summarize its key findings in a structured report format . | 1 |
| 15. Prepare a sample abstract for a research study on the impact of social media on students' academic performance. | 1 |

Total Hours 45

Text Books:

1. Kothari C. R. (2023). *Research Methodology*, Sultan Chand Publications, New Delhi.
2. Panneer selvam R. (2023). *Research Methodology*, PHI Learning Private Limited, New Delhi.

Books for Reference:

1. Michael. B.P (2023). *Research Methodology in Management*, Himalaya Publishing House, Mumbai.
2. Ranjitkumar (2023). *Research Methodology a Step-by-Step guide for beginners*, Sage Publication Private Limited, New Delhi.
3. Gupta Mukul, Gupta Deepa. (2023). *Research Methodology*, PHI Learning Private Limited, Delhi.
4. Gupta S.P (2023). *Statistical Methods*, Sultan Chand and Sons, New Delhi.

Course Outcomes:

1. Capable to implement the different types of research problems
2. Familiarity in developing research design and sampling techniques
3. Knowledge on measurement and scaling techniques and tools for data collection
4. Ability to process the collected data and Application of statistical tools for testing hypothesis and preparation of research report
5. Application of publication Ethics in Research

CO-PO Mapping

CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3
CO1	M	M	H	H	L	L	M	H	M
CO2	M	M	M	H	L	L	M	H	M
CO3	L	M	M	H	L	L	L	H	L
CO4	M	M	M	H	L	L	L	H	M
CO5	L	L	L	H	M	L	L	H	L

Quantitative Techniques for Business

Semester: II

25MCCC10

Hours of Instruction Per Week :3 –L:3

No. of Credits :3

Course Objectives:

1. To learn the different quantitative techniques for application in business.
2. To enable decision making in complex business situations.
3. To apply the appropriate techniques for the effective utilization of resources.

Unit 1:Quantitative Approach

9

Introduction – Quantitative Approach to Decision Making – Characteristics of Operational Research –Techniques of Operational Research –Operational Research Methodology – Models and Modeling in Operational Research . Probability - Definition – Rules of probability – Addition and Multiplication Rules – Simple Business Application Problems– Probability Distribution – Expected Value Concept - **Baye's Theorem and its applications (Self Study)**

Unit 2: Queuing and Decision Theory

9

Queuing Theory – Meaning – Objectives – Limitations – Elements of Queuing System – Queuing and Cost behaviour – Single Channel, Single Server Queuing Model – Multiple Channel Model – Queuing Models – Performance Measures of Queuing System – Decision Theory – Expected Value of Perfect Information (EVPI) – An Alternative Approach-Minimizing Expected Losses – Marginal Analysis – Utility as a Decision Criterion – **Decision Tree Approach to choose Optimal Course of Action (Self Study).**

Unit 3: Transportation Problems

9

Transportation problems – Methods of Finding Initial and Optimum Solutions – Northwest Corner Method – Least Cost Method – Vogels Approximation Method – Degeneracy – Unbalanced Transportation Test for Optimality – Modified Distribution (MODI) Method – Assignment problems – Unbalanced – Maximization problems – Least Time Transportation Model – **Transhipments Model(Self Study).**

Unit 4: Network Scheduling Techniques

9

Introduction – Drawing a Network – Critical Path Method(CPM) – Calculating Earliest Start Time – Calculating Latest Finish Time (LFT) - Resource Analysis in Network Scheduling : Control of project costs – Time Cost optimization – Programme Evaluation and Review Technique(PERT) – Network Crashing (Time-cost Trade-off) – **Graphical Evaluation and Review Technique (GERT) (Self Study).**

Unit 5: Linear Programming

Basic requirements of linear programming problems – Graphical solution to maximisation problems– Minimization problems – Basic assumptions of linear programming – Simplex method – Setting up the initial Solution – Simplex solution to a minimization problems – Dual simplex method – **Problems based on mixed constraints(Self Study).**

Total Hours 45

Text Books:

1. **Deepak Bansal (2023).** Quantitative Techniques for Business, Thakur Publication Pvt.Ltd., Lucknow.
2. **Gupta M.P. & Khanna R.B. (2022).** *Quantitative Techniques for Decision Making*, PHI Learning, Private Limited, New Delhi.

Books for Reference:

1. **Gupta P.K. & Manmohan (2022).** *Problems in Operations Research Methods and Solution*. Sultan Chand & Sons, New Delhi.
2. **Khanna R.B. (2022).** *Quantitative Techniques for Managerial Decisions*, PHI Learning Private Limited, New Delhi.
3. **Singh J.P. & Singh N.P. (2023).** *Quantitative Techniques and Operations Research*, Ane Books Pvt. Ltd., New Delhi.
4. **Vohara N.D. (2021).** *Quantitative Techniques in Management*, Tata McGraw Hill Publishers, New Delhi.

Course Outcomes:

1. Ability to apply the concepts of Quantitative Techniques & Probability theorem.
2. Capable to take decisions-based Queuing & Decision theory.
3. Builds strategies for the effective utilization of resources.
4. Acquire knowledge on optimum allocation of resources.
5. Use Linear Programming techniques to identify possible solution for a business problem.

CO-PO Mapping

CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	POS3
CO1	H	H	H	H	M	H	H	H	H
CO2	H	H	M	H	M	M	H	H	H
CO3	H	H	M	M	M	M	H	H	H
CO4	H	H	H	H	H	H	H	H	H
CO5	H	H	H	H	H	H	H	H	H

Computer Applications Practical II : Data Analysis Using Python

Semester: II

25MCCC11

Hours of Instruction/Week: 2(T); 4 (P)

No. of Credits: 4

Course Objectives:

1. To understand the basics of Python as a programming language
2. To apply data analysis oriented computation.
3. To implement machine learning methods using real-world data.

Unit 1: Introduction to Python

6

Python Programming Language – History – Features- Installing python–Running python program – Basic syntax.

Unit 2: Data types, Operators, Conditional and Looping Statements

6

Basic Data Types – Declaring Variables – Operators – Precedence of Operators– Type conversion conditional statements –Looping statements.

Unit 3: Arrays and Functions

6

Arrays –String – Slice – String Functions – Functions – Defining Function –Default Arguments – Recursive Function – Anonymous Functions – Lists– Tuples.

Unit 4: Dictionaries and Data Analysis

6

Dictionaries – Supervised Learning - Classification. Regression - Unsupervised learning- K-Means Clustering.

Unit 5: Neural Networks and Algorithms

6

Building a Neural Network from scratch- Implementation of K-Nearest Neighbours Algorithms.

Total Hours 30

List of Practical

1. Program using control flow statements. 5
2. Program using anonymous function and user defined function 5
3. Program to Implementing programs using string operations 5
Strings. (reverse, palindrome, character count, replacing characters)
4. Program Implementing real-time/technical applications using Lists, Tuples. 5
(Items present in a library/Components of a car/ Materials required for construction of a building –operations of list & tuples)
5. Program related to Dictionaries and Dictionary Comprehensions 5

6. Python Program to Display Calendar	5
7. Program for implementing Statistical Hypothesis Testing	5
8. Program using cluster Analysis techniques	5
9. program to implement Linear Regression Analysis.in python	5
10. Python Program to Merge Mails	5
11. Program for applying Decision tree.	5
12. Program to perform Time series analysis	5
Total Hours	60

Text Books:

1. **Reema Thareja (2023)** *Python Programming: using Problem solving Approach*, Oxford
2. **Rupesh Nasre (2022)** *Python Programming*, All India Council for Technical Education, New Delhi.

Books for Reference:

1. **De.Shaik Jumlesha, Jayabalaji, Farrukh Arslan & Susmitha.(2023).** *Data Analytics wi Python*, Book Rivers Publication.
2. **John Shovic & Alan Simpson (2020)***Python All-in-One for Dummies*, Wiley India Pvt Lt Noida.
3. **Pandey P K(2020)***Python Programming O Level Module M3*, T Balaji Publication

Course Outcome:

- 1:Appreciate the uniqueness of Python as a programming language.
- 2: Relate Python features as a data analysis tool.
- 3:Apply different machine learning algorithms
- 4:Experiment with Deep learning algorithms
- 5:Compare different types of plots and graphs

CO-PO Mapping

CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3
CO1	H	H	H	H	H	H	H	H	H
CO2	H	M	H	M	H	M	H	H	H
CO3	H	M	M	M	H	M	H	H	H
CO4	H	M	M	H	H	H	H	H	H
CO5	H	M	M	H	H	M	H	H	H

Income Tax Law and Practice

Semester: II
25MCCC12

Hours of Instruction/Week: 5 –L:4, T: 1
No. of Credits: 5

Course Objectives:

1. To understand the provisions of Indian Income Tax Act.
2. To familiarize with computation of taxable income under various heads and tax liability of individual and HUF.
3. To understand the Set off and Carry forward of Losses and filing of returns.

Unit I: Introduction

12

Tax: concept, types – direct and indirect; canons of taxation; Direct Tax- Need, features - basis of charges. Income Tax (as per Income Tax Act, 1961 and amendments): Basic Concepts- Residential status- Scope of Total Income, Heads of Income; Income which do not form a part of Total Income; Agriculture Income and its taxability.

Unit II: Income from Salary and House Property

12

Meaning of salary-Basis of charge- conditions of chargeability- Allowances- Perquisites- Deductions and exemptions- Computation of taxable Income from Salary. Income from House Property - Basis of charge, Determinants of Annual Value- Deductions and exemptions-computation of taxable income from House Property.

Unit III: Profits and Gains from Business or Profession, Capital Gains, and Income from Other Sources

12

Business income: Meaning- methods of accounting- Deductions and Disallowances under the Act- Computation of presumptive income under Income-Tax Act- Computation of taxable income from Business and profession. Capital Gains - Capital Asset – Meaning- Basis of Charge- Exemptions related to capital gains- Meaning of Transfer- Computation of taxable capital Gain. Income from Other Sources: Basis of charge - Dividend, Interest on securities - Winning from Lotteries - Crossword puzzles - Horse races, Card games etc. Permissible deductions- impermissible deductions.

Unit IV: Computation of Total Income and Tax Liability of Individual and HUF

12

Income of other persons included in assessee total income, Aggregation of income and Set-off and Carry Forward of Losses. Deductions from Gross Total Income- Rebates and relieves; Computation of total income and tax liability of individuals and HUF.

Unit V: Filing of Returns

12

Filing of returns: Manually and on-line filing of Returns of Income -Tax Deducted at Source- Provisions and Procedures of Compulsory On-line filing of Returns for specified assesses.

Total Hours 60

List of Tutorial

- | | | |
|-----|---|---|
| 1. | Identify the income tax slabs for different categories of taxpayers. | 1 |
| 2. | Identify the eligible savings scheme or investment for agricultural income and educate the Assessee on which one is beneficial to them. | 2 |
| 3. | Identify an assessee with a House Property and study how the incomes from house property are assessed. | 1 |
| 4. | Identify the Income from other sources and compute tax liability under Permissible deductions and impermissible deductions. | 2 |
| 5. | Compute the returns of individuals and HUF and educate some individuals for e-filing of returns | 1 |
| 6. | Educate an assessee on the documents required for filing income tax returns manually and Online. | 1 |
| 7. | Identify the common mistakes people make while filing returns manually and online and educate assessee on rectifying the mistakes. | 2 |
| 8. | Identify the challenges of manual filing compared to online filing. | 1 |
| 9. | Visit the website of Income Tax Department, Government of India and get to know the online ITR Forms with hypothetical data. | 2 |
| 10. | Compute the tax liability of an individual under old and new regime and educate the assessee on which one is beneficial to them. | 2 |

Total Hours 15

Text Books:

1. **Gaur V.P., Narang D.B., Puja Gaur and Rajeev Puri. (2023), *Income Tax Law and Practice*, Kalyani Publishers, New Delhi.**
2. **Ahuja, G., and Gupta, R. (2023), *Simplified Approach to Income Tax*. Flair Publications Pvt. Ltd, New Delhi.**

Books for Reference:

1. **Singhania V. K. and Singhania M. (2023)**, *Student's Guide to Income Tax including GST-Problems & Solutions*, Taxmann Publications Pvt. Ltd, New Delhi:
2. **Mehrotra H.C. (2023)**, *Income Tax Law and Accounts*, Sahitya Bhavan, Agra
3. **Dinkar Pagare (2023)**, *Income Tax Law and Practice*, Sultan Chand & Sons, New Delhi.
4. **Reddy T.S. and Hari Prasad Reddy Y. (2023)**, *Income Tax Law and Practice*, Margam Publication, Chennai.

Course Outcome:

- 1:Comprehend the concepts of taxation, including assessment year, previous year, assesses, personal income, total income, agricultural income and determine the residential status of persons.
- 2:Compute income under different heads, applying the charging provisions, deeming provisions, exemptions and deductions.
- 3:Apply the clubbing provisions and provisions relating to Set-off and Carry Forward of Losses to determine the Gross Total Income.
- 4:Calculate the tax liability of an individual and HUF as well as deductions from gross total income and determine the total income of an individual and HUF.
- 5:Comprehend the provisions relating to filing of return of income.

CO-PO Mapping

CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PSO1	PSO2	PSO3
CO1	H	H	H	H	L	H	H	M	M	H	H	H	H
CO2	H	H	H	H	L	H	H	M	M	H	H	H	H
CO3	H	H	H	H	L	H	H	M	M	H	H	H	H
CO4	H	H	H	H	L	H	H	M	M	H	H	H	H
CO5	H	H	H	H	L	H	H	M	M	H	H	H	H

Computer Applications Practical III- Java Programming

Semester II

Hours of Instruction/Week: 4 (P)

25MCCC13

No. of Credits:2

Course Objectives:

1. To learn Java syntax, data types, operators, and control structures
2. To Learn to interact with databases.
3. To enhance analytical thinking by solving real-world business problems using Java

List of Practical:

1. Program for Classes and Objects.	4
2. Program for Inheritance.	4
3. Program for Multithreading.	4
4. Program for Exceptions.	4
5. Program for String Manipulations.	4
6. Program for Counting the Number of Characters, Words, Lines in the File.	4
7. Program for Multiple Selection List-Box.	4
8. Program for Simple Applet and application.	4
9. Write a Java Program to Create a Frame with Three Text Fields for Name, Age and Qualification and a Text Field for Multiple Lines for Address.	4
10 Write a Java Program to Create Menu Bars and Pull Down Menus.	4
11 Write a Java Program to Draw Circle, Square, Ellipse and Rectangle at the Mouse Click Positions.	4
12 Write a Java Program for Encapsulation.	4
13 Write a Java Program to Calculate Simple and Compound Interest.	4
14 Write a Java Program to Calculate Income Tax.	4
15 Java Program to Prepare Budget.	4
Total Hours	60

Books for Reference:

1. **Balagurusamy.E(2023).** *Programming with Java.7th Edition.*.Mc Graw Hill Education, India
2. **Herbert Schildt (2022).***Java a Beginner's Guide. Ninth Edition.* McGraw-Hill Osborne Media
3. **Horstmann (2018).***Core Java Volume 1 – Fundamentals.12th edition.* Pearson Education
4. **Paul Deital & Harvey Deital (2015).***Java: How to Program, Tenth edition.* Pearson Education

Course Outcomes:

CO1.Ability to apply technical skill to develop a customized application

CO2.Ability to develop menu driven application by using GUI components

CO3.Acquire knowledge to import java utilities.

CO4.Identify platform portability for developing an application.

CO5.Learn to undertake web based application

CO-PO Mapping

CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3
CO1	H	M	M	H	H	H	H	H	H
CO2	H	M	M	H	H	H	H	H	H
CO3	H	M	M	H	H	H	H	H	H
CO4	M	M	M	H	H	H	H	H	H
CO5	M	M	M	H	H	H	M	M	M

Security Analysis and Portfolio Management

Semester: III

25MCCC14

Hours of Instruction/Week: 3-L: 3

No. of Credits: 3

Course Objectives:

1. To apply the basic concepts of investment
2. To use the tools and techniques of investment analysis
3. To acquire skills to construct a portfolio and evaluation

Unit 1: Investment

9

Basics of Investment – Nature and Scope of Investment Analysis – Elements of Investment - Approaches of Investment – Concepts of Risk & Return– Types of Risk– Measurement of Risk and Return– Measurement of Risk and Return through CAPM– Elements of the Model – **Financial Assets(Self – Study).**

Unit 2: Valuation of Equity Shares

9

Equity– Risk and Return– Capitalization of Dividend –Earning and Cash Flows – Profit Earning Approach (PE) (Simple Problems only) Valuation of Debt Securities, Types of Bonds –**Interest Rate Risk and Purchasing Power Risk- Yield Curves – Risk Management in Bonds – Bonds Duration** (Simple Problems only)(**Self – Study**).

Unit 3: Fundamental and Technical Analysis

9

Fundamental Analysis: Economic – Industry and Company Analysis – Sources of Information for Analysis. Technical Analysis – Types of Charts – Dow Theory, Elliott Wave Theory, **Odd Lot Theory– Moving Average Analysis –Efficient Market Hypothesis. (Self–Study)**

Unit 4: Portfolio Management

9

Portfolio – Basic Principles – An Overview – Planning and Implementation. Portfolio Objectives– Portfolio Monitoring – Constraints – Portfolio Types and Needs – Statement of Investment Policy. Portfolio Management: Portfolio Analysis – Traditional v/s Modern – Rationale of Diversification Markowitz Theory – Effect of Combining Two Securities – **Portfolio Selection Measurement of Risk and Return (Simple Problems only)(Self–Study).**

Unit 5: Portfolio Analysis

9

Sharpe the Single Index Model – Capital Market Line (CML) – Constructing Optimal Portfolio (Simple Problems only) –Evaluation of Portfolio Performance: Measures – Reward to Variability and Rewards to Volatility – Sharpe's, Trynor's, and Jenson's Performance Indices –**Portfolio Revision (Simple Problems only) (Self–Study).**

Total Hours 45

Text Books:

1. **Kevin S. (2022).** *Security Analysis and Portfolio Management*, PHI Learning Private Limited, New Delhi.
2. **Ranganatham M. and Madhumathi R. (2021).** *Investment Analysis and Portfolio Management*, Pearson Education (India) Private Limited, New Delhi.

Books for Reference:

1. **Avadhani V.A (2022).** *Investment Management*. Himalaya Publications, Mumbai.
2. **Bhalla V.K (2022).** *Investment Management, Security Analysis and Portfolio Management*. Sultan Chand and Company, New Delhi.
3. **Fisher, Donald E and Ronald J Jordan (2022).** *Security Analysis and Portfolio Management*, Prentice Hall, New Delhi.
4. **Pratap Giri S. (2021).** *Investment Banking*. Tata McGraw hill, New Delhi.
5. **Punithavathy Pandian (2021).** *Security Analysis and Portfolio Management*, Vikas Publishing House, New Delhi.
6. **Sudhindra Bhat (2022).** *Security Analysis and Portfolio Management*, Excel Books

Course Outcomes:

1. Able to apply, investment principles and risk return model
2. Acquire skills to manage risk and return
3. Capable to select securities based on fundamental and technical analysis
4. Able to construct portfolio, know-how in understanding modern portfolio management techniques and measures
5. Application of different techniques to evaluate the portfolio

CO-PO Mapping

CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3
CO1	H	H	H	H	H	H	H	H	H
CO2	H	H	H	H	M	H	H	H	H
CO3	H	H	H	H	M	H	H	H	H
CO4	H	H	H	H	H	H	H	H	H
CO5	H	H	H	H	H	H	H	H	H

Financial Management

Semester: III
25MCCC15

Hours of Instruction/Week: 3-L: 3
No. of Credits: 3

Course Objectives:

1. To implement and demonstrate the concepts and techniques of Financial Management.
2. To apply financial planning in the changing personal and financial environment.
3. To use the concepts of short-term and long-term investment decisions.

Unit 1: Financial Management

9

Financial Management: Meaning – Nature – Objectives and Scope of Finance – Agency Problem- **Financial Goals - Profit Vs Wealth Maximization – Functions of Finance Manager (Self-Study)** Time Value of Money – Rationale – Techniques: Risk and Return – Portfolio Selection – Capital Asset Pricing Model (CAPM).

Unit 2: Sources of Finance and Capital Budgeting

9

Sources of finance – Introduction - Equity Shares - Preference Shares - Deferred Shares - No Par Shares - Debentures- Types and Features of Debentures: Capital Budgeting – Meaning and Process - Methods of Capital Budgeting – Discounted Cash Flow Analysis – Payback Period- Net Present Value method, Internal Rate of Return, Profitability Index Methods – Project Selection Under Capital Rationing: **Cost of Capital – Importance and Concept (Self-Study)**– Measurement of Specific Cost – Computation of Overall Cost of Capital.

Unit 3: Leverage and Capital Structure

9

Introduction – Meaning and Types of Leverage – Operating Leverage – Financial Leverage - **Distinguish Between Operating Leverage and Financial Leverage (Self-Study)** - EBIT - EPS Break Even Chart - Combined Leverage and Working Capital Leverage: Capital Structure - Factors Determining Capital Structure - Theories of Capital Structure – Net Income Approach – Net Operating Income Approach – Modigliani-Miller Approach - Traditional Approach.

Unit 4: Dividend Decision

9

Dividend Decision - Meaning and Forms of Dividend – Dividend Theories - Irrelevance of Dividend - Relevance of Dividend - **Factors Determining Dividend Policy - Types of Dividend Policy (Self-Study)**– Bonus Shares (Stock Dividend) and Stock (Share) Splits Stock Repurchase - Buy-Back of Securities – Legal, Procedural and Tax Aspects.

Unit 5: Working Capital Management

9

Meaning and Concept of Working Capital – Types and Needs of Working Capital - Sources of Working Capital: Working Capital Management – Meaning and Definition - **Inventory Management - Techniques Based on the Classification of Inventories (Self-Study)**- Techniques on the Basis of Records – Cash and Receivable Management

Total Hours 45

Note: Questions of Theory and Problems to be distributed as to 40% and 60% Respectively

Text Books:

1. **Khan M Y & Jain P K (2018).**, *Financial Management.*, Tata McGraw Hill., New Delhi.
2. **Pandey I. M (2021).**, *Financial Management.*, Vikas Publishing House., New Delhi.

Reference Books:

1. **Prasanna Chandra (2022).** *Financial Management.*, Tata McGraw Hill., New Delhi.
2. **Maheswari.S.N(2019).** *Financial Management.*, Sultan Chand and Sons., New Delhi.
3. **Bhalla V K (2021).** *Financial Management.*, Sultan Chand, New Delhi.

Course Outcomes:

1. Able to manage financial operation of a business.
2. Capable to take investment decisions using capital budgeting techniques
3. Ability to examine leverage and form optimum capital structure.
4. Competent to analyze the impact of dividend decisions.
5. Proficient in applying working capital management techniques

CO-PO Mapping

CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3
C01	H	H	H	M	M	H	H	H	H
C02	H	H	H	H	H	H	H	H	H
C03	H	M	H	H	H	H	H	H	H
C04	H	H	H	H	M	H	H	H	H
C05	H	H	M	H	H	H	H	H	H

Computer Applications Practical IV- Data Analytics using R Programming

Semester: III

Hours of Instruction/Week: 6: 2 (L),4 (P)

25MCCC16

No. of Credits: 4

Course Objectives:

1. To explore and acquire skills in SPSS and R Programming
2. To understand various methods, Analysis and models in R Programming
3. To equip knowledge on technical components of data analysis

Unit 1: Introduction to Data Analysis

6

Overview of Data Analytics, Need of Data Analytics, Nature of Data, Classification of Data: Structured, Semi-Structured, Unstructured, Characteristics of Data, Applications of Data Analytics.

Unit 2: R Programming Basics

6

Overview of R programming, Environment setup with R Studio, R Commands, Variables and Data Types, Control Structures, Array, Matrix, Vectors, Factors, Functions, R packages.

Unit 3: Data Visualization using R

6

Reading and getting data into R (External Data): Using CSV files, XML files, Web Data, JSON files, Databases, Excel files. Working with R Charts and Graphs: Histograms, Boxplots, Bar Charts, Line Graphs, Scatterplots, Pie Charts

Unit 4: Statistics with R

6

Random Forest, Decision Tree, Normal and Binomial distributions, Time Series Analysis, Linear and Multiple Regression, Logistic Regression, Survival Analysis

Unit 5: Prescriptive Analytics

6

Creating data for analytics through designed experiments, Creating data for analytics through active learning, Creating data for analytics through reinforcement learning

Total Hours 30

Note: Questions of Theory and Practical to be distributed as to 40% and 60% Respectively

List of Practical

1. Write program to calculate Multiplication Table using Reprogram. 4
2. Find leap year using R program. 4
3. Create a bar chart using employees database. 4
4. Create a database and Calculate Correlation and Regression 4
5. Import a Student Database containing Name, Age, DoB, Gender and Marks I First Semester and Visualize data using scatter plots 4
6. Logical statements, cbind/ rbind command in R and Create dataset using data frames and factors and plot a graph. 4
7. Perform K-means clustering and hierarchical clustering for a dataset with a case study. 4

8.	Analysis Chi-Square tests for two-way tables.	4
9.	Calculate Multiple Linear Regression Models	4
10.	Create R Dataset and determine the employees database for three year	4
11.	Create vectors that correspond to the following variables names: age, days per month and first five prime numbers.	4
12.	Perform the correlation for employee experience and performance.	4
13.	Create database and analyses it using descriptive database	4
14.	Create and import and visualize data using scatter plots	4
15	Create One Way Analysis of Variance and Chi Square Test.	4
Total Hours		60

Text Book:

1. **Sandip Rakshit.(2017).** *R Programming for Beginners*. Mc Graw Hill Education, India.

Books for Reference:

1. **Seema Acharya(2018).** *Data Analytics using R*, Mc Graw Hill Education (India).
2. **Mark Gardener.(2016)** *Beginning R: The Statistical Programming Language(Wrox)(Revised Edition)*. John Wiley & Sons, Inc..
3. **Andrie de Vries, JorisMeys (2015).** *R for Dummies A Wiley Brand, 2nd Edition*. John Wiley and Sons, Inc.

Course Outcomes:

1. Capable to relate R Programming concepts with Datasets
2. Able to demonstrate data frames to perform data Structure
3. Demonstrate data Analysis to perform the probability distribution
4. Perform statistical analysis by application of R programs
5. Perform correlation and regression using visualization functions of R

CO-PO Mapping

CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3
CO1	H	M	M	H	H	H	H	H	H
CO2	H	M	M	H	H	H	H	H	H
CO3	H	M	M	H	H	H	H	H	H
CO4	M	M	M	H	H	H	H	H	H
CO5	M	M	M	H	H	H	M	M	M

Course Objectives:

1. To analyze the impact of Globalization on the growth of the international business.
2. To implement the knowledge on trading environment and operations management.
3. To provide with the knowledge and skills needed to navigate global markets.

9

Unit 1: Globalization

Globalization- Meaning- Features- Importance - Globalization of world economy - Implication- Globalization of Indian business- International Business Vs Domestic Business - Complexities of International Business; Internationalization Stages and Orientations. Modes of entry into International Business- International Business Decisions-Types of International Business-National and Foreign Environments and their Components- Economic, Cultural and Political-Legal Environments; Global Trading Environment -Recent Trends in World Trade in Goods and Services; **Trends in India's Foreign Trade (Self-study).**

9

Unit 2: International Trading Environment

Protection- Methods of Protection- Commodity Agreement - Cartels - State Trading - Trade Blocs - European Union - SAARC - SAPTA - GATT & WTO - GATS, TRIMS, TRIPS and PATENTS. Trade Policy and Export Promotion: Trade Strategies- Trade Strategy of India- EXIM Policy – Regulation and Promotion of Foreign Trade- Export Promotion - Promotional Set Up -Incentives - Production and Marketing Assistance Facilities - **EPZs, EOUs, TPIs, SEZs – Export Houses and Trading Houses (Self-Study).**

9

Unit 3: International Operations Management

Supply Chain and Value Chain Management - Make (or) Buy - Global Sourcing - Partnering /Relationship Marketing - Global Networking of Operations - Location Strategy - International Logistics. International Monetary System: The Pre-Bretton Woods Period- The Bretton Woods System-Emergence of Managed Floating-EMS, ECU and EURO-The Euro Dollar Market- Foreign Exchange Market - Determination of Exchange Rates –Exchange Control- Exchange Rate System - Classification - Convertibility of Rupees –Devaluation- **Managing Currency Exchange Risk (Self-Study).**

9

Unit 4: International Economic Organizations

International Monetary Fund - Financing Facilities and Policies -Process of IMF Lending-IMF and International Liquidity- World Bank – Evolution of IMF-World Bank- GSTP- International Financial Corporations -Asian Development Bank- UNCTAD- UNIDO- International Trade Centre- Meaning and Definition of MNCs- Importance and Dominance of MNCs –MNCs and International Trade- Merits of MNCs- Demerits of MNCs-**Multinationals in India (Self-Study)**

International Investment and Finance: Types of Foreign Private Investments- Theories of International Investments- Significance of Foreign Investments- Trade and Investments- Factors affecting International Investments- Limitations and Dangers of Foreign Capital- Growth of FDI- Dispersion of FDI- Cross-Border Mergers and Acquisitions- Foreign Investments in India-The New policy-Euro/ADR Issues-Foreign Investments by Indian Companies International Trade Financing-Institutional Finance for Export - **Export Credit Risk Insurance (Self -Study)**

Total Hours 45

Text Books:

1. **Avadhani V.A (2023).** *International Finance*, Himalaya Publishing House, New Delhi.
2. **Francis Cherunilam(2024).***International Business*, Prentice Hall of India, New Delhi.

Books for Reference:

1. **Bhalla. V.K, (2020).** *International Financial Management*, Anmol Publications, New Delhi
2. **Charles W.L.Hill (2023).** *International Business*, Tata McGraw Hill Publishing Company, New Delhi.
3. **Justin Paul (2018).***International Business*, Prentice Hall of India, New Delhi.
4. **SubbaRao.P (2021).** *International Business*, Himalaya Publishing House, New Delhi.

Course Outcomes:

1. Analyze the international business environment in global scenario.
2. Equipped with international trading strategies.
3. Able to assess the logistics and monetary system, and the impact on global business.
4. Examine the role of global financial institutions and the influence of MNCs on International trade.
5. Assess the significance of foreign Direct Investment and its implications for Indian business.

CO-PO Mapping

CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3
CO1	H	H	H	M	M	L	H	H	M
CO2	H	M	H	H	L	H	H	L	M
CO3	H	M	H	M	M	H	M	H	H
CO4	H	H	M	M	H	H	M	H	L
CO5	H	M	H	L	H	H	H	M	L

**Business Environment
(Self Study)**

**Semester III
25MCCC18**

**Hours of Instruction Per Week : 2
No. of Credits : 2**

Course Objectives:

1. To assess the internal and external environment of business.
2. To comprehend the economic and political factors affecting business
3. To enhance the skill on socio-cultural, international and technological environment.

Unit 1: Theoretical Framework of Business Environment

6

Business Environment Concept – Significance and Nature of Business Environment – Elements of Environment – Factors Influencing Business Environment – Internal and External – Environmental Analysis – Changing Dimensions of Business Environment – Techniques of Environmental Scanning and Monitoring.

Unit 2: Economic Environment of Business

6

Economic System – Economic Planning in India – Government Policies – Industrial Policy – Fiscal Policy – Monetary Policy – EXIM policy – Economic Roles of Government in India – The Constitutional Environment – Development Banks and Relevance to Indian Business – Economic Reforms – Liberalization and Privatization.

Unit 3: Political and Legal environment of business

6

Critical Elements of Political Environment – Government and Business – Competition Policy and Law – Changing Dimensions of Legal Environment in India – MRTP Act – FEMA and Licensing Policy – Consumer Protection Act – UN Guidelines for Consumer Protection.

Unit 4: Socio-Cultural Environment

6

Critical Elements of Socio-Cultural Environment – Social Institutions and Systems – Social Values and Attitudes – Social Groups – Social Orientation of Business – Factors affecting social orientation – Middle class – Dualism in Indian Society and problems of uneven income distributions – Emerging rural sectors in India – Indian Business System – Social responsibility of business – Consumerism in India.

Unit 5: International and Technological Environment

6

Multinational Corporations – Foreign Collaborations and Indian Business – Essential Condition of Globalisation – Non Resident Indians and Corporate Sector – International Economic Institutions – WTO – World Bank – IMF and their importance to India – Policy on research and development – Patent laws – Technology transfer – Online Services – E-Commerce – Indian condition of E-Commerce – Electronic Banking and Franchise Business.

Total Hours 30

Text Books:

1. **Ashwathappa K. (2022).** *Essentials of Business Environment*. Himalaya Publications, Delhi.
2. **Franchise Cherunillam (2024).** *Business Environment Text & Cases*, Himalaya publications, New Delhi.

Books for Reference:

1. **Adikary M. (2020).** *Economic Environment of Business*, Sultan Chand & Sons, New Delhi.
2. **Ghosh and Biswanath (2018).** *Economic Environment of Business*, Vikas Publication, Noida.
3. **Vivek Mittal (2017).** *Business Environment*, Excel Books, Made Gowdas J. Deep publications Private Ltd. New Delhi.

Course Outcomes:

1. Ability to assess the influence of various business environments.
2. Proficient in managing the business with economic systems and government policies.
3. Able to analyze the changing dimensions of legal environment.
4. Capable to assess the business through socio-cultural environment.
5. Competent with new technological policies and operations of global Institutions.

CO - PO Mapping

CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	POS3
CO1	H	H	M	H	H	H	H	H	H
CO2	H	H	H	H	H	H	H	H	H
CO3	H	H	M	H	H	H	H	H	H
CO4	H	H	H	M	H	H	H	H	H
CO5	H	H	H	H	H	H	H	H	H

Automated Data Processing for Business Analytics

Semester: III

Hours of Instruction/Week: 4- L: 2, P: 2

25MCCC19

No. of Credits : 3

Course Objectives:

- 1.To understand the basics of KNIME Analytics and its applications
- 2.To understand the system requirements for KNIME.
- 3.To explore KNIME tools to create graphs and charts for effective time series representation.

Unit 1:Introduction to KNIME Analytics

15

Introduction to knime Analytics Platform - Getting Started : Training files - Automation - Types of variables - Introduction about Time series Analysis - Preparing Data for Time Series Analysis - Time Series Visualization - Time Series Components and Statistical Properties.

Unit 2: Creating workflow Operations

15

Creating workflow with and working with it - Loading data - Information about the data - Data Manipulation - Data Visualization - Metanodes and Components - Machine Learning - Machine Learning in Knime.

Total Hours 30

List of Practical

- | | |
|---|---|
| 1. Write a step-by-step guide on how to install KNIME Analytics Platform on your computer. | 2 |
| 2. Explain how to handle missing values in a dataset using KNIME. | 2 |
| 3. Find the mean, median, and mode of a given dataset using KNIME's data manipulation nodes. | 2 |
| 4. Write a program to merge two datasets based on a common column using KNIME. | 3 |
| 5. Create a bar chart to represent the distribution of a categorical variable in a given dataset using KNIME. | 3 |
| 6. Explain how to customize the appearance of a scatter plot in KNIME to better visualize the relationship between two variables. | 3 |
| 7. Use KNIME to create an interactive table to display the summary statistics of a given dataset. | 3 |
| 8. Implement a simple classification model using the Decision Tree node in KNIME and explain its results. | 3 |

10. Use KNIME's K-Means node to perform clustering analysis on a given dataset and explain the resulting clusters. 3
11. Analyze a given dataset using KNIME and identify the correlation between two variables. Explain your findings. 3

Total Practical Hours 30

Total Hours 60

Reference Books:

1. Automatic data processing using the KNIME Analytics Platform, by Vladimír Löffler, first edition, 2021.
2. The basics of working with KNIME Analytics Platform, Barbora Stetinová, first edition, 2024.
3. Codeless Time Series Analysis with KNIME: A Practical Guide to Implementing Forecasting Models for Time Series Analysis Applications, Corey Weisinger, Maarit Widmann, and Daniele Tonini, first edition, 2022.

Course Outcomes:

- 1: Understand the KNIME Analytics Platform.
- 2: Can Create and Manage KNIME Workflows
- 3: Able to Implement a Machine Learning Models
- 4: Becomes familiar to Work with Training Files and Automation
- 5: Analyze Time Series Components and Statistical Properties

CO PO Mapping

CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3
CO1	H	H	H	M	L	H	H	H	H
CO2	H	H	H	L	M	H	H	H	H
CO3	H	H	H	M	M	H	H	H	H
CO4	H	M	H	L	H	M	H	H	H
CO5	H	H	H	M	M	M	H	H	H

Banking Operations and Management

Semester: III
25MCCC20

Hours of Instruction/Week: 3-L:3
No. of Credits: 3

Course Objectives:

1. To understand the operations of Indian banking system.
2. To gain knowledge on lending policies of loans and advances in bank.
3. To know about the strategic issues and crisis management in banking.

Unit 1: Introduction

9

Banks: Types of Banks - Operational Aspect of Indian Banking System - Relationship between banker and customer, Types of the customer, Negotiable Instruments - Cheque, Endorsement, Dishonor - Bills of Exchange, Bills discounting and purchasing - Promissory notes - **Rights and Liabilities of Paying and Collecting Banker (Self Study).**

Unit 2: Lending of Loans and Advances

9

Lending of Loans and Advances - Concept of Credit – Credit Policy – Credit Monitoring – Production Vs Consumption credit - Credit Instruments/ Products – Credit Facilities – Fund and Non Fund Corporate and Retail banking – Priority Sector lending – Sectoral financing –Consumer, Agriculture, SMEs, SHGs, SSI, Tiny - Consortium Financing – **Credit rating and CIBIL Procedures (Self Study).**

Unit 3:Securities and Modes of Charges

9

Securities and Modes of Charges - General principles - Secured Vs. Unsecured - Collateral securities - Advances against title of goods/ ornaments/ securities/ book debts etc., Modes of Charges: loan/ pledge/ hypothecation and mortgages – Guarantees and surety - **Documentation procedures and Stamping (Self Study).**

Unit 4: Prudential Norms

9

Income Recognition, Asset Classification (IRAC) Norms – Capital Adequacy Norms – Asset Liability Management - Exposure Norms for loans and investments - Off balance sheet exposure - Management of NPA and Recovery - Lok Adalat, DRT, SARFESI and IBC – Prompt Corrective Action (Self Study).

Unit 5: Strategic Issues in Bank Management

9

Short Term and Long term strategy goals in Banking – Mergers and Acquisition in Banking Industry – Corporate Governance in Banking: Role of Boards and Governance Mechanism, Ethical Banking and Corporate Social Responsibility. Bank Performance and Crisis Management: Managing financial crisis and systematic risk, **Role of Central Banks and government intervention in crisis management (Self Study).**

Total Hours 45

Text Books:

1. **Gordon E. and Natarajan K. (2021).***Banking Law and Practice*, Himalaya Publishing House, New Delhi.
2. **Sundharam.K.P.M and Varshney P.N.(2021).***Banking Theory Law and Practice*, Sultan ChandSons, New Delhi.

Books for Reference:

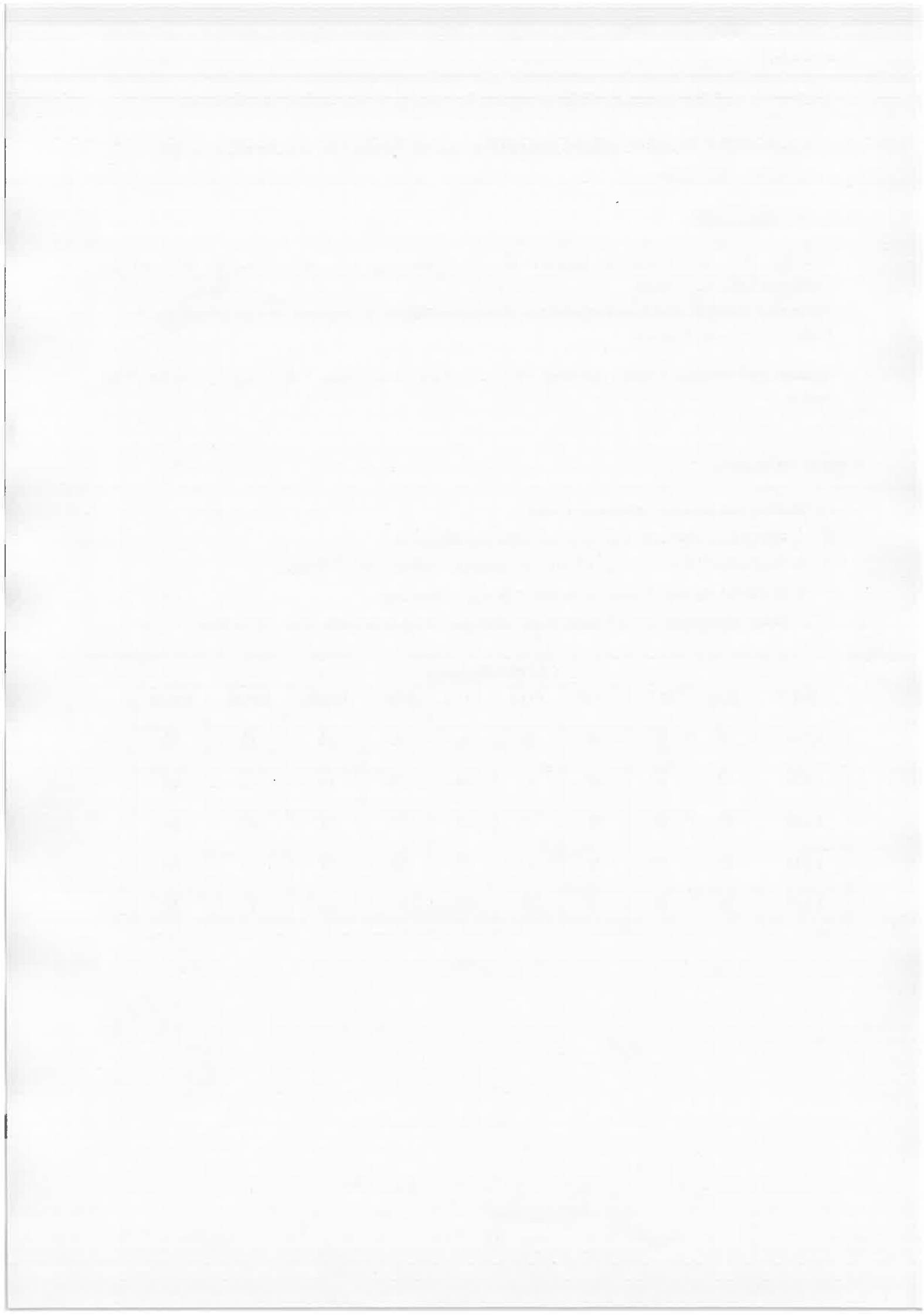
1. **Gulshan S.S. and Gulshan Kapoor K. (2020).***Banking Law and Practice*, S.Chand and Company Ltd., New Delhi.
2. **Nirmala Prasad K and Chandradass J. (2015).***Banking and Financial System*, Himalaya Publishing House, Bombay,
3. **Shekar and Shekar (2016).** *Banking Theory and Practice*, Vikas Publishing House Pvt. Ltd., Noida.

Course Outcomes:

1. Identify the various functions of bank.
2. Analyze the procedure and types of loans and advances.
3. Demonstrate the knowledge of various securities and modes of charges.
4. Understand various prudential norms relating to banking.
5. Evaluate the importance of identifying strategic issues to resolve crisis in banking.

CO PO Mapping

CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3
CO1	H	H	H	M	L	H	H	H	H
CO2	H	H	H	L	M	H	H	H	H
CO3	H	H	H	M	M	H	H	H	H
CO4	H	M	H	L	H	M	H	H	H
CO5	H	H	H	M	M	M	H	H	H



Professional Development Course

Banking and Financial Institutions

Semester: III

Hours of Instruction/Week: 3 - L: 3

25MCCPD2

No. of Credits: Remarks

Course Objectives:

1. To explore the role and functions of banking system in India.
2. To give an insight on bankers practice in lending of loans and Advances.
3. To analyse the mutual fund portfolio and role of NSDL and CSDL in securities market.

9

Unit 1: Introduction

Banking - Structure of Indian Banking System - Commercial Banks - Functions of Bank-Customer Relationship - KYC - Banking Services - Technology in Banking Services - AI Cloud Computing - Blockchain - Open Banking - Robotic Process Automation - **Chatbots** - **Benefits of Banking Technologies (Self Study).**

Unit 2: Negotiable Instruments

9

Negotiable Instruments - Cheque, Endorsement, Dishonor - Payment in Due Course - Payment and Collection of Cheques - Precautions to be taken by the Paying Banker - Protection given Paying Banker - Collecting Banker as Agent - Holder in due course - Negligence - Conversion - **Protection given to Collecting Banker - Duties of Collecting Banker (Self Study).**

Unit 3: Financial Technology

9

FinTech - Meaning - Importance - FinTech landscape - Architecture - Applications of FinTech - Trends - **Use of FinTech in Banks (Self Study).**

Unit 4: Financial Institutions

9

Introduction- Role of Financial Institutions in Economic Development - Overview of Financial Institutions - Non-banking financial institution (NBFI): Meaning and definition, Classification of NBFI - Functions of NBFI - Developmental Banks - Small Industries Development Bank of India (SIDBI), National Bank for Agriculture and Rural Development (NABARD), Export-Import Bank of India Bank - Organization, Objectives and Functions - **National Bank for Financing Infrastructure and Development (NaBFID) - Export Credit Guarantee Corporation of India Limited (ECGC) - Deposit Insurance (Self Study).**

Unit 5: Mutual Funds

9

Mutual Funds - Concept and Objectives, Functions and Portfolio Classification, Organization And Management, Guidelines for Mutual Funds, Public and Private Mutual Funds in India. Debt Securitization - Concept and Application - Demat Services - Need and Operations - **Role of NSDL And CSDL (Self Study).**

Total Hours 45

Text Books:

1. **Gordon E. and Natarajan K. (2021).** *Banking Law and Practice*, Himalaya Publishing House, New Delhi.
2. **Sundharam K.P.M and Varshney P.N(2021).** *Banking Theory Law and Practice*, Sultan Chand Sons, New Delhi.

Books for Reference:

1. **Bharathi V. Pathak (2024).** *Indian Financial System*, Pearson Education India, Uttar Pradesh.
2. **Gulshan S.S. and Gulshan Kapoor K. (2020).** *Banking Law and Practice*, S.Chand and Company Ltd., New Delhi.
3. **Nirmala Prasad K. and Chandradass J. (2015).** *Banking and Financial System*, Himalaya Publishing House, Bombay

Course Outcomes:

1. Proficient on Structure of the Indian Banking System and Technology.
2. Apply to handle negotiable instruments.
3. Comprehensive understanding and application of Fintech.
4. Ability to analyze the role of Financial Institution in fostering economic development.
5. Acquire skills on asset allocation in designing an effective mutual fund portfolio.

CO-PO Mapping

CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3
CO1	H	M	H	H	H	M	H	H	M
CO2	H	H	H	M	H	H	H	H	H
CO3	H	M	H	H	H	M	H	H	H
CO4	H	H	H	H	H	H	H	H	H
CO5	H	H	H	H	H	H	H	H	H

Professional Development Course
Introduction to Environment, Social and Governance

Semester: IV
25MCCPD3

Hours of Instruction/Week: 3-L: 3,
No. of Credits: Remarks

Course Objectives:

1. To understand the fundamental concepts of ESG and its importance in Modern businesses
2. To analyze how companies and organizations integrate ESG criteria into their operations and decision-making
3. To examine the regulatory landscape around ESG, including international standards and reporting frameworks

Unit 1: Introduction

9

Corporate Sustainability: Meaning – Theories on Corporate Sustainability. Corporate contribution to UN SDGs. Importance of ESG in the context of corporate sustainability- Benefits of ESG for Companies, Stakeholders Shareholders and Investors - **ESG and its impact on the global economy (Self-study).**

Unit 2: Environmental Sustainability

9

Green House Gas (GHG) emissions–Types of GHGs. – categorization of emission and its accountability. Transition to renewable energy - Climate risk and adaptation strategies. Resource Management: Water conservation, waste management, and biodiversity. **Environmental Regulations and Standards: International agreements, Paris Agreement, COP 26 (Self-study).**

Unit 3: Social Responsibility

9

Corporate Social Responsibility – Meaning, Importance - Provisions of Companies Act, 2023 on CSR. Social Responsibility Activities: Human Rights and Labor Standards: Fair labor practices and employee rights - Diversity, equity, and inclusion (DEI). Community Impact: Corporate contributions to local communities - Ethical supply chain management. **Product Responsibility: Customer safety and privacy concerns - Ethical marketing practices(Self-study).**

Unit 4: Corporate Governance

9

Corporate Governance and Ethics: Board structure and accountability - Executive compensation, shareholder rights, and transparency. **Regulatory and Legal Frameworks(Self-study)-** Role of auditors and compliance. Ethical Decision-Making: Conflict of interest and corporate corruption - Whistleblower protection and anti-corruption measures.

Unit 5: ESG Reporting and Standards

9

ESG standards: IFRS1-General, IFRS2-Climate related disclosures. Reporting Standards and Frameworks: Global Reporting Initiative (GRI), Sustainability Accounting Standards Board(SADA),Business Responsibilities and Sustainability Reporting(BRSR), Task Force on Climate-related Financial Disclosures (TCFD). ESG Metrics and Indicators - **ESG Ratings and Agencies - need for standardization (Self-study).**

Total Hours 45

Text Books:

1. **Francis Cherunilam(2022).** *Business Environment and Sustainable Development*, Himalaya Publishing House, New Delhi.

Books for Reference:

1. **Ashok K. Rathoure, Rupesh Kumar Luhariya, Haresh Nautiyal and Bindurani Laxmibai G. P. Ram (2021).** *Environment and Society for Sustainability*. Discovery Publishing House Private Ltd. India.
2. **Esty, Daniel C., and Todd Cort, eds. (2020).** *Values at work: Sustainable investing and ESG reporting*. Palgrave Macmillan, New Delhi.
3. **Silvola, Hanna and Tiina Landau (2021).** *Sustainable investing: Beating the market with ESG*, Palgrave macmillan, New Delhi.

Course Outcomes:

1. Evaluate the importance of Conceptual Framework of Corporate Governance and Determine Stakeholder's rights
2. Understand the environmental hazards and develop resources management practices.
3. Develop an understanding of corporate and social responsibilities and ethical code of conduct.
4. Determine disclosures and data governance and board's accountability of Corporate.
5. Explore ESG Reporting Standards and Frameworks.

CO-PO Mapping

CO/PO	PO1	PO2	PO3	PO4	PO5	PO6	PSO1	PSO2	PSO3
CO1	H	M	H	H	H	M	H	H	L
CO2	H	M	H	H	H	M	H	H	L
CO3	H	M	H	H	H	M	H	H	L
CO4	H	M	H	H	H	M	H	H	L
CO5	H	M	H	H	H	M	H	H	L