

Scheme and Syllabus for  
Apprenticeship Embedded Degree Program

**Three/Four-year Bachelors in Commerce with Double Major in  
Logistics and Commerce**

**Table: Apprenticeship Embedded Degree Program: Three-year/ 4 yr. Bachelors in Commerce with Double Major in E-Commerce Operations and Commerce** (Eligibility: Anyone who has completed Higher Secondary or Equivalent belonging to any stream – Arts/ Science/ Commerce/ Vocation/ Diploma in Engineering) w.e.f. 2025-26

Semester	Core-I (Credit 4)	Core-II (Credit 4)	Core-III (Credit 4)	MDC (Credit 3)	AEC (Credit 4)	SEC (Credit 3)	VAC (Credit 3)	Community Engagement & Service s/ Fieldwork/ Internship	Credit total
<b>Semester I</b>	1. Inventory Management 2. Introduction to E-commerce and Logistics Operations 3. Outsourcing in E-commerce 4. Warehouse Management	Financial Accounting		Cost Accounting			Environmental Studies and Disaster management		26
<b>Semester II</b>	5. Material Handling 6. First and Last Mile Operations 7. Data Spread Sheet 8. MIS for E-commerce		Corporate Account & Reporting		English – Business Communication	Business Statistics and Data Interpretation	Good Citizenship		30
<b>Semester III</b>	9. E-commerce Customer Service 10. Reverse Logistics for E-Commerce 11. Hub & Line Operations 12. Fulfilment Operations	GST & Indirect Tax	Management Accounting	Financial Market Institution					27
<b>Semester IV</b>	13. Packaging for E-Commerce 14. Business Data Analysis 15. Business Application Software	Corporate Legal Framework	Auditing & Corporate Governance		English – Word and Presentation Skill	Business Regulatory Framework			27
<b>Semester V</b>	APPERENTICESHIP (Credit 20)	As per NEP							20
<b>Semester VI</b>	APPERENTICESHIP (Credit 20)	As per NEP							20

Semester	Core-I (Credit 4)	Core-II (Credit 4)	Core-III (Credit 4)	MDC (Credit 3)	AEC (Credit 4)	SEC (Credit 3)	VAC (Credit 3)	Community Engagement & Service s/ Fieldwork/ Internship	Credit total
<b>Credit Summary</b>	15 x 4 = 60 (+ 40)	3 x 4 = 12	3 x 4 = 12	2 x 3 = 6	4 x 2 = 8	2 x 3 = 6	2 x 3 = 6		150
<b>Semester VII</b>	16. Research Methodology & Research Ethics 17. Fundamentals of Securities Analysis and Portfolio Management 18. Fundamentals of Operations Research and Quantitative Techniques	19. Corporate Restructuring and Business Valuation 20. International Business Environment							20
<b>Semester VIII</b>	21. Sustainable Development & Corporate Social Responsibility 22. Fundamentals of Commodity Markets							Research	20
	<b>3x4 = 12 + 2x4=8</b>	<b>2x4</b>						<b>12</b>	<b>190</b>

# Semester I

Semester	Core-I	Core-II	Core-III	Multi-disciplinary	AEC	SEC	VAC
<b>Semester I</b>	1. Inventory Management 2. Introduction to E-commerce and Logistics Operations 3. Outsourcing in E-commerce 4. Warehouse Management	Financial Accounting		Cost Accounting			Environmental Studies and Disaster management

**CORE I****PAPER I****Inventory Management****Credit 4**

<b>Unit</b>	<b>Topics</b>
I	Introduction to Inventory Management
II	What is inventory management-Why is inventory management important-Role in inventory management in e-commerce supply chain-Inventory management terms-Types of inventory in e-commerce supply chain -Management of inventory in e-commerce supply chain.
III	Basic Inventory Management Techniques and Relevance to E-Commerce Logistics Economic order quantity-Minimum order quantity -ABC analysis. -Just-in-time inventory management. -Safety stock inventory. -FIFO and LIFO. -Batch tracking. -Consignment Inventory-Perpetual inventory management-Six Sigma and Lean Six Sigma-Demand Forecasting-Cross-docking-Bulk shipments.
IV	Key Inventory Management Metrics Inventory turnover-Safety stock -Reorder point-Backorder rate-Carrying cost of inventory Inventory Management Software
V	What is inventory management software - Features of good quality software. -Choosing the correct warehousing management system. Latest Trends in Inventory Management Predictive picking using artificial Features of good quality software-Choosing the correct warehousing management system-Omni channel inventory management solutions-Streamlined management of returned inventory -Streaming Analytics-Advanced sales forecasting-New inventory management skills.

**Textbooks & Suggested Readings:**

1. Course Material Prepared by LSC
2. Sunil Chopra and Peter Meindl, Supply Chain Management Pearson Education Asia, 3rd edition, 2007
3. Operations Research – Concepts, Problems & Solutions- Kapoor V.K.-Sultan Chand & Sons/2017- 978-81-8054-854-3 (TC-532)
4. Vijay Kumar Khurana, 2007, Management of Technology and Innovation, Anebooks India, Chennai Further Reading Source
5. Simchi-Levi, David, “Designing and Managing Supply Chain”, Tata McGraw Hill, 3rd Edition, 2007. 6. David E Mulcahy, “Warehouse Distribution and Operations Handbook, McGraw Hill, 6<sup>th</sup> Edition, 1993.

**CORE I****PAPER II****Introduction to E-Commerce And Logistics Operations****Credit 4**

Unit	Topics
I	Basics of E-Commerce & Logistics Operations E-Commerce-Meaning, Role & Revolution of E-commerce & Logistics Operations-Challenges & Impact of E-commerce & Logistics Operations on the world and global trade. Roadmap of e-commerce in India. Regulatory policies and impact on e-commerce logistics. - Disruption in E-commerce logistics.
II	Logistics and System Concept, Objectives and Role of Logistics Introduction-Logistics Functions and Management-Role of Logistics in the Supply Chain-Catalysts for Outsourcing Trends -Benefits of Logistics Outsourcing-Third- and Fourth-Party Logistics- Logistics goals and types-General capacity theory in logistics-Inbound and outbound operation- Capacity management in inbound and outbound logistics
III	Types of E-Commerce Logistics in India Business to Consumer (B2C) - Business model and challenges. -Business to Business (B2B) - Business model and challenges. Consumer to Consumer (C2C) - Business model and challenges. -Other E-Commerce Models- Integrating Logistics into the Operations Process-Assessment, Planning, Preparing, Executing and Terminating for Logistics Operations
IV	Impact of Technology on E-Commerce Logistics Role and advantages of technology in e-commerce logistics. -Technology disruption and innovation in e-commerce logistics- Challenges in adopting technology in Indian e-commerce logistics. -Major upcoming technologies and systems in e-commerce logistics-GPS tracking-Drone delivery-Electric vehicle delivery systems
V	Future of E-Commerce in India Growth projections for e-commerce in India-Upcoming regulations and their likely impact on e-commerce logistics Global research on e-commerce logistics. Integration with stock & order processing systems-Systems used in Inbound and outbound operations-Systems used for Value-added delivery options (premium/express / scheduled / location mapping)-Customer and Support Relationships

**Textbooks & Suggested Readings:**

1. Course Material Prepared by LSC
2. E-Commerce an Indian Perspective P.T. Joseph, S.J.- PHI publication
3. IT Encyclopedia.Com: Volume 8: Parag Diwan & Sunil Sharma: E commerce - Pentagon Press.
4. E-Commerce Strategies: Charles Trepper – PHI
5. S. R. Bhansali, Information Technology Act, 2000, University Book House Pvt. Ltd., Jaipur.
6. Essential Cyber security Science, Josiah Dykstra, 2017 – O'Reilly

**CORE I****PAPER III****Outsourcing in E-Commerce****Credit 4**

<b>Unit</b>	<b>Topics</b>
I	Introduction-- 1.1 What is Outsourcing? 1.2 Why do companies outsource? 1.3 When to Outsource? 1.4 How to implement outsourcing? 1.5 Problems with outsourcing
II	Ecommerce Outsourcing 2.1 What is Ecommerce Outsourcing? 2.2 How do Ecommerce Outsourcing help Business? 2.3 The Big Benefits of Outsourcing Your eCommerce 2.4 Best countries for Ecommerce Outsourcing and why?
III	Outsourcing Strategic Assessment 3.1 Business Value Assessment 3.2 Operational Assessment 3.3 Financial Assessment 3.4 Risk Assessment 3.5 Integrating the four risk elements
IV	Outsourcing Risk Management 4.1 Hidden Cost of Outsourcing 4.2 Models of Outsourcing 4.3 What risk are there with outsourcing? 4.4 Techniques and tools to assess risk
V	Future 5.1 Will outsourcing continue to grow in the years to come? 5.2 Future outsourcing trends 5.3 Future of outsourcing in India

**Text & Reference Books:**

1. Course Material Prepared by LSC



**Warehouse Management****Credit 4**

<b>Unit</b>	<b>Topics</b>
I	Introduction to Warehouse (Storage and Packaging) Background – Need for Warehouse – Importance of warehouse - Types of Warehouses - Broad functions in a warehouse - warehouse layouts and layout related to functions. Associate warehouse -Its functions - equipment available in associate warehouse - Video on warehouse – Visits to warehouses - Warehouse Organization Structure - Benefits of Warehousing.
II	Receiving and Dispatch of Goods in warehouse Various stages involved in receiving goods – Stages involved receipt of goods- Advanced shipment notice (ASN) or invoice items list- Procedure for Arranging of goods on dock for counting and Visual inspection of goods unloaded- Formats for recording of goods unloaded from carriers Generation of goods receipt note using computer- Put away of Goods- Put away list and its need-Put away of goods into storage locations - storage location codes and its application- Process of put away activity- Procedure to Prepare Warehouse dispatches
III	Warehouse Activities Explain receiving, sorting, loading, unloading, Picking Packing and dispatch, activities and their importance in a warehouse - quality parameters- Quality check-need for quality check-importance of quality check. Procedure to develop Packing list / Dispatch note-Cross docking method - Situations suited for application of cross docking - Information required for coordinating cross docking- Importance of proper packing-Packing materials -Packing machines -Reading labels
IV	Warehouse Management: Warehouse Utilization Management- Study on emerging trends in warehousing sector - DG handling -use of Material Handling Equipment's in a warehouse - Inventory Management of a warehouse - Inbound & Outbound operations of a warehouse and handling of Inbound & Outbound operations. Distribution – Definition – Need for physical distribution – functions of distribution – marketing forces affecting distribution. The distribution concept – system perspective. Channels of distribution: role of marketing channels – channel functions – channel structure –designing distribution channel – choice of distribution channels
V	Warehouse Safety Rules and Procedures: The safety rules and Procedures to be observed in a Warehouse - Hazardous cargo – Procedure for Identification of Hazardous Cargo - safety data sheet- Instructions to handle hazardous cargo - Familiarization with the industry. Health, Safety & Environment - safety Equipment's and their uses- 5S Concept on shop floor. Personal protective Equipment's (PPE) and their uses.

**Text & Reference Books:**

1. Course Material Prepared by LSC
2. J P Saxena, Warehouse Management and Inventory Control- Vikas Publication House Pvt Ltd, First Edition, 2003.
3. Warehouse Management: Automation and Organisation of Warehouse and Order Picking Systems[With CDROM], Michael Ten Hompe, Thorsten Schmidt, Springer-verlag, First Edition, 2006.
4. Management Guide to Efficient Money Saving Warehousing, Stephen Frey, Gower, 1982.
5. Kapoor Satish K., and Kansal Purva, 'Basics of Distribution Management: A Logistical Approach', Prentice HALL of India.

**Course Objectives**

The course aims to help learners to acquire conceptual knowledge on financial accounting, to impart skills for recording various kinds of business transactions and to prepare financial statements.

**Course Outcomes**

At the end of this course the learner will be able to;

- Apply the generally accepted accounting principles while recording transactions and preparing financial statements of sole-traders;
- Compute depreciation and inventories to be recorded in financial statements
- Demonstrate accounting process under computerized accounting
- System;
- Create financial statements of sole proprietor and partnership firms;
- Prepare accounts for inland branches and not-for-profit organizations.

**Unit I: Introduction**

- Accounting principles: Concepts and Conventions. Introduction to Accounting Standards and Indian Accounting Standards (AS & Ind-AS), Accounting Cycle: Journal, Ledger, Trial Balance, Financial Statements (IND AS-1). Capital & Revenue Recognition (IND AS 18), Accounting for Inventory (IND AS-2)
- **Depreciation (IND AS-16):** Nature of depreciation causes of depreciation, Factors, Methods of computing depreciation; Disposal of depreciable assets- change of method, Relevant Accounting Standard. **Final Accounts:** Preparation of Financial Statements of a Sole Trader including adjustments. Errors & their rectification.

**Unit II:**

- **Accounting for partnership Firms:** Partner's Capital Accounts; profit and Loss Appropriation Account, Accounts Prepared on admission, Death and Retirement of Partners; Accounts on Dissolution of partnership Firm.
- **Accounting for Hire purchase and Installment Purchase;** Lease accounting (IND AS 116)/ Royalty accounting

**Unit III: Accounting for Branch and Not-for Profit organizations**

- **Accounting for Branch:**

Concept of Dependent branches; Branch Accounting debtors system, stock and debtors' system, branch final account system and wholesale basis system. Independent branches: concept, accounting treatment with necessary adjustment entries; Incorporation of Branch Trial Balance in Head Office Books for home branches.

- **Accounting for Not-for-Profit Organizations**

Meaning of Not-for-Profit Organization; Significance of Receipt and Payment Account, Income and Expenditure Account and Balance Sheet; Difference between Profit and Loss Account and Income and Expenditure Account; Preparation of Receipt and Payment Account, Income and Expenditure Account and Balance Sheet.

#### **Unit IV: Computerized Accounting Systems**

Computerized Accounting Systems: Computerized Accounts by using any popular accounting software Creating a Company; Configure and Features settings; Creating Accounting Ledgers and Groups; Creating Stock Items and Groups; Vouchers Entry; Generating Reports - Cash Book, Ledger Accounts, Trial Balance, Profit and Loss Account, Balance Sheet, and Cash Flow Statement. Selecting and shutting a Company; Backup, and Restore data of a Company.

#### **Suggested Readings**

- ✓ *Goyal, Bhusan Kumar- Fundamentals of Financial Accounting Taxmann's.*
- ✓ *S.P. Jain and K.L. Narang- Financial Accounting– Kalyani Publisher*
- ✓ *Gupta R.L. Radhaswamy. M-Financial Accounting, Sultan Chand and Sons*
- ✓ *R.K. Mittal / M. R. Bansal/Sahadev Swain, Financial Accounting, VK Global Publication*
- ✓ *Tulsian P.C., Financial Accounting, Pearson Education*
- ✓ *S.N. Maheshwari, and. S. K. Maheshwari. Financial Accounting. Vikas Publishing House.*
- ✓ *Jawahar Lal & S. Srivastava, B. Com- Financial Accounting, Himalaya Publishing House.*

**Course Objectives**

- To develop understanding among learners about contemporary cost concepts and rational approach towards cost systems and cost ascertainment.
- To provide knowledge about various methods of cost determination under specific situations.
- To acquire the ability to use information determined through cost accounting for decision making purposes.

**Course Outcomes**

After completion of the course, learners will be able to:

- Understand and analyse the different cost concepts.
- Analyse various components of cost of production.
- Compute unit cost and total cost by preparing a cost statement.
- Compute employee cost, employee productivity and employee turnover.
- Determine cost for different industries using job costing, process costing, contract costing and service costing.

**Unit 1: Introduction**

Meaning, scope, objectives and advantages of cost accounting; Difference between financial and cost accounting. Cost concepts and classifications, Cost centre, profit centre and responsibility centre, Overview of elements of cost and preparation of Cost Sheet for manufacturing sector. Role of a cost accountant in an organisation. Cost Accounting Standards (CAS – 4 on Cost of Production / Acquisition / Supply of Goods / Provision of Services) and (CAS – 22 on Manufacturing Cost) as amended from time to time.

**Unit 2: Elements of Cost: Material and Employee Cost**

- Materials: Accounting and control of purchases, storage and issue of materials. Techniques of inventory control, Periodic and perpetual systems of maintaining inventory records, an overview of methods of pricing of materials issues — FIFO and Weighted Average price method, Valuation of materials as per CAS – 6 on Material Cost, Accounting treatment of losses— Wastage, scrap, spoilage and defectives
- Employee (Labour) Cost: Accounting and Control of employee cost. Time-keeping and time-booking. Employee turnover: meaning, methods of measurement and accounting treatment. Concept and treatment of idle time and overtime. Methods of wage payment and Incentive schemes- Halsey, Rowan, Taylor's differential piece wage.

**Unit 3: Elements of Cost: Overheads**

Classification, allocation, apportionment and absorption of overheads, Under and over- absorption of overheads; Capacity Levels and Costs; Treatments of certain items in costing like interest and financing charges, packing expenses, bad debts, research and development costs.

### **Suggested Readings**

- ✓ *Tulsian, P.C. (2020). Cost Accounting. Delhi, India: S. Chand.*  
*"Advanced Cost Accounting" by Saxena and Vashist - published by Kalyani Publishers, Cuttack, Odisha.*  
*Arora, M.N. (2021). Cost Accounting-principles and practice. Delhi, India: Vikas Publishing House.*
- ✓ *Goel, R. K., & Goel, I. (2019). Concept Building Approach to Cost Accounting for B.Com (Hons.)/B.Com.. Delhi, India: Cengage Publications.*
- ✓ *Gupta, S., Reeta, & Prabhakar, R. R. (2021). Cost Accounting for B.Com. Delhi, India: Sultan Chand.*
- ✓ *Maheshwari, S. N., & Mittal, S. N. (2020). Cost Accounting. Theory and Problems. Delhi, India: Shri Mahaveer Book Depot.*
- ✓ *Maheshwari, S. N., Mittal S. K. & Mittal, S.N. (2021). Cost Accounting: Principles & Practice, Delhi, India: Shree Mahaveer Book.*
- ✓ *Mitra, J. K. (2021). Cost and Management Accounting. Delhi, India: Oxford University Press.*
- ✓ *Nigam, B. M. L. & Jain, I. C. (2023). Cost Accounting: Principles and Practice. Delhi, India: PHI Learning.*
- ✓ *Singh, S. (2019). Fundamentals of Cost Accounting. Allahabad, India: Kitab Mahal.*

**Unit 1: Multidisciplinary nature of environmental studies (8 Period)**

Definition, scope and importance

Need for public awareness

Environmental Pollution

Definition

**• Cause, effects and control measures of:-**

- a) Air pollution
- b) Water pollution
- c) Soil pollution
- d) Marine pollution
- e) Noise pollution
- f) Radiation pollution

**Unit 2: Natural Resources: (8 Period)**

Renewable and non-renewable resources:

Natural resources and associated problems.

- a) Forest resources: Use and over-exploitation, deforestation, case studies. Timber extraction, mining, dams and their effects on forest and tribal people.
- b) Water resources : Use and over-utilization of surface and ground water, floods, drought, conflicts over water, dams-benefits and problems.
- c) Mineral resources : Use and exploitation, environmental effects of extracting and using mineral resources, case studies.
- d) Food resources : World food problems, changes caused by agriculture and Overgrazing, effects of modern agriculture, fertilizer-pesticide problems, water logging, salinity, case studies.
- e) Energy resources : Growing energy needs, renewable and non-renewable energy sources, use of alternate energy sources. Case studies.

Biodiversity:- Introduction-Definition; Biogeographically classification of India

India as a mega diversity nation. Hot spots of biodiversity, Threats to biodiversity. Endangered and endemic species of India. Conservation of biodiversity. In Situ and Ex-situ conservation of biodiversity

### **Unit-3: Disaster Management (8 Period)**

1. Disaster Management: Types of disasters (natural and Man-made) and their causes and effect)
2. Vulnerability Assessment and Risk analysis: Vulnerability to various disasters (Flood, Cyclone, Earthquake, Heat waves, Desertification and Lightning)
3. Institutional Framework: Institutional arrangements for disaster management (National Disaster Management Authority (NDMA), State Disaster Management Authority (SDMA), Disaster Management Act, 2005, District Disaster Management Authority (DDMA), National Disaster Response Force(NDRF) and Odisha Disaster Rapid Action Force(ODRAF)
4. Preparedness measures: Disaster Management cycle, Early Warning System, PreDisaster and Post-Disaster Preparedness, strengthening of SDMA and DDMA, Community Preparedness for flood cyclone, heat waves, fire safety, lightening and snake biting. Stakeholders participation, Corporate Social Responsibility (CSR)
5. Survival Skills: Survival skills adopted during and after disaster (Flood, Fire, Earthquake, Cyclone and Lightning), Disaster Management Act-2005, Compensation and Insurance

### **Unit 4: Social Issues and the Environment (6 Period)**

- A. a) Environmental Ethics: Issues and possible solutions.
- b) Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust. Case studies
- c) Environment Protection Act
- d) Air (Preservation Control of Pollution) Act
- e) Water (Preservation Control of Pollution) Act
- f) Wildlife Protection Act
- g) Forest Conservation Act
- h) Solid waste management Cause, effect and Control Measure of Urban and Industrial waste (Role of each individual in conservation of Natural resources and prevention of pollution)
- B. Human Population and the Environment
- Population Ecology: Individuals, species, population, community
- Human population growth, population control method
- Urbanisation and its effect on society

### **Unit 5: Field work (15 Periods of 30 hrs)**

- Visit to an area to document environmental assets: river/forest/flora/fauna, etc.
- Visit to a local polluted site- Urban/Rural/Industrial/Agricultural
- Study of common plants, insects, birds and basic principles of identification.
- Study of simple ecosystems-pond, river, Delhi Ridge ,etc.

# Semester II



Semester	Core-I	Core-II	Core-III	Multi-disciplinary	AEC	SEC	VAC
<b>Semester II</b>	1. Material Handling 2. First and Last Mile Operations 3. Data Spread Sheet 4. MIS for E-commerce		Corporate Account & Reporting		English: Business Communication	Business Statistics & Data Interpretation	Good Citizenship

**CORE I****PAPER V****Material Handling****Credit 4**

Unit	Topics
I	Introduction: Introduction: Materials Management - Evolution, Importance, Scope and Objectives-Interface with other functions. Concept of Logistics and Supply Chain Management and evolution to 4PL-Supply Chain Management - Objectives, Components, Significance, Trade off Customer Service & Cost.
II	Types of Material Handling Equipment Storage and Handling Equipment: -Racks, Bins and Drawers., Stacking Frames, Shelves, Mezzanines. Transport Equipment: Conveyors, Cranes, Lifts and elevators. Engineered Systems: Automated Guided Vehicles (AGVs), Automated Storage and Retrieval Systems (AS/RS), Conveyor Systems, Robotic Delivery System. Bulk Material Handling Equipment, Stackers and Reclaimers. Hoppers and Silos.
III	Material Requirement Planning (MRP) Material Requirement Planning (MRP)- Advantages over conventional planning (Order Point Method) – Input and output of MRP system - Forecasting - Overview of quantitative and qualitative methods of forecasting - Master Production Schedule - Bill of Materials- BOM Explosion - Material flow in MRP. MRP II. Concept of ERP. (Numerical likely on BOM Explosion, estimating Net requirements). Design of Material Handling Systems The Unit Load Concept-In-Process Handling-Distribution.
IV	Quality control of material Quality control of material: Incoming material quality control-statistical quality control-governmental purchasing practices and procedures-Inventory control & Cost Reduction techniques: Inventory turns ratios-Standardization – need and importance. Codification – concept, benefits. Value Engineering and Value Analysis – concept and process.
V	Health and Safety Materials handling and storage systems, Physical distribution logistics- transportation, Traffic and claims management- operations research and related techniques- Principles of Materials Handling system - Materials Handling Equipment – Safety issues.

**Text & Reference Books:**

1. Course Material Prepared by LSC
2. Materials management: procedures, text and cases - A.K. Datta
3. Materials management: An integrated approach - P. Gopalakrishnan
4. Introduction to Materials management - J.R. Tony Arnold & Stephen N. Chapman
5. Materials & Logistics Management - L.C. Jhamb

**First and Last Mile Operations****Credit 4**

<b>Unit</b>	<b>Topics</b>
I	Role of First Mile in E-Commerce Logistics Difference between First Mile, Line Haul and Last Mile operations. -First Mile Operations - Overview. -Why is First Mile operations important in e-commerce logistics-First Mile process flow.
II	Shipment Pickup and Processing Operations Shipment pickup process. -Pickup operations staff - roles and responsibilities. -Pickup coordination. -Safety and security of shipments during pickup-Pickup Documentation- Primary and secondary processing. -Bagging operations. -Manual processing operations- Automated processing operations
III	Layout of A Processing Centre Inbound Operations-Processing Operations-Outbound Operations-Safety and security-Processing Centre staff-roles and responsibilities- Productivity-Pickup operations metrics-Processing operations metrics-First Mile dashboard- Pickup and Processing tools and applications-Exceptions in First Mile and impact on operations.
IV	Introduction to Last mile operations What is the Last Mile in Ecommerce? -Importance of the Last Mile in the supply chain- Last Mile Delivery challenges for e-commerce-Trends in Last Mile delivery-Route optimisation in Last Mile Operations-Delivery Process& its challenges-Reverse pickup process in Last mile operations and its Challenges -Tools and applications in Last Mile Operations-Metrics to measure in the last file-Automation and technology driving metrics.
V	Customer service and Prospects of Last Mile Logistics Customer service and its importance-Good and bad customer service (Dos and Don'ts of customer service)- Relationship between metrics and customer service. -Innovations in Last Mile Logistics-Technology Trends in Last Mile Delivery-Future Prospects

**Text & Reference Books:**

1. Course Material Prepared by LSC

**CORE I****PAPER VIII****MIS for E-Commerce****Credit 4**

Unit	Topics
I	Management Information Systems Information Systems Changing Business Environment in Retail Management Information System and the Trends business should monitor Information and Knowledge-Economy Contemporary Approach to Information Systems: Business Analytics and Business Intelligence
II	Global E-business and Collaboration E- Commerce Business Processes and Information Systems Types of Information Systems Systems for Collaboration and Social Commerce The Information Systems Function in Business
III	Electronic Commerce and the Digital Organization Electronic Commerce Digital Organization, Role of Digital Technologies Customer Segmentation, Personalization and Recommendations Role of IT Infrastructure and Cloud Computing
IV	Enhancing Decision Making Decision Making and Information Systems Business Intelligence in the Enterprise Business Intelligence Constituencies Building Information Systems including Mashups Managing Projects: Project Management Methodology Managing Global Systems
V	Redesigning the Organization with Information Systems Systems as Planned Organizational Change Business Process Process Improvement: Business Process Management System Analysis and Change Management Systems Design: Agile Architecture

**Text & Reference Books:**

1. Course Material Prepared by LSC

## CORE III

## PAPER I

### Corporate Accounting and Reporting

**Credit 4**

#### **Course Objectives**

##### **The course aims to:**

- Understand the principles of corporate accounting and financial reporting.
- Apply accounting standards and regulations to prepare and analyze financial statements.
- Interpret financial information to assess the financial performance and position of a company.
- Develop skills in financial reporting and disclosure requirements for different stakeholders.
- Analyze contemporary issues and challenges in corporate accounting and reporting.

#### **Course Outcomes**

After completion of the course, learners will be able to:

- Understanding of Corporate Accounting Principles.
- Preparation and Analysis of Financial Statements.
- Interpretation of Financial Information.
- Financial Reporting Skills.
- Analysis of Contemporary Issues.

#### **Unit I: Accounting for Share Capital and Debentures**

Types of shares; Issue and Pro-rata allotment of shares; concept & process of book building; forfeiture and reissue of forfeited shares; Issue of rights and bonus shares; ESOPs and Buy Back of shares. Issue and redemption of preference shares; Issue and redemption of debentures;

#### **Unit II: Final Account of Companies including one Person Company (IND-AS.1)**

Preparation of financial statements of corporate entities including one Person company (excluding calculation of managerial remuneration) as per Division I and II of Schedule III of the Companies Act 2013; Preparation of Financial Statements.

#### **Unit III: Corporate Reconstruction and Profit or Loss Prior to Incorporation**

- **Internal Reconstruction:** Different forms of Internal Reconstruction; Accounting treatment for alteration of share capital and reduction of the share capital; Preparation of balance sheet after Internal Reconstruction.
- **External Reconstruction:** accounting for amalgamation in the nature of merger and in the nature of acquisition (IND-As.103)
- **Profit or loss Prior to Incorporation:** Meaning of profit or loss prior to incorporation; accounting treatment of profit or loss prior to incorporation.

#### **Unit IV: Consolidated Financial statement and Reporting**

- Consolidation process and elimination entries, Intercompany transactions, Revaluation of assets and liabilities, Non-controlling interests (NCI), equity method investments (IND-As.110), issue of bonus shares and distribution of dividend from pre and post-acquisition period. Preparation of consolidated financial statements.
- Reporting: Financial reporting (As per IND-As.1), Non-financial reporting: Business Responsibility and Sustainability Reporting (As per LORD, SEBI), Environmental Social and Governance Reporting, Sustainability Reporting (As per GRI).

Integrated Reporting (As per IIRC)

#### **Suggested Readings**

- ✓ *Goyal, B. K., Corporate Accounting. New Delhi: Taxmann Publication.*
- ✓ *Jain, S. P., & Narang, K. L. Corporate Accounting. New Delhi: Kalyani Publishers.*
- ✓ *Maheshwari, S. N., Maheshwari, S. K., & Maheshwari, S. K. Corporate Accounting. New Delhi: Vikas Publishing House.*
- ✓ *Mukherjee, A., & Hanif, M. Corporate Accounting. New Delhi: TataMcGraw Hill Education.*
- ✓ *Shukla, M. C., Grewal, T. S., & Gupta, S. C. Advanced Accounts. Vol.-II. New Delhi: S. Chand Publishing.*
- ✓ *Sehgal, A. Fundamentals of Corporate Accounting. New Delhi: Taxmann Publication.*
- ✓ *Dam, B. B. & Gautam, H. C. Corporate Accounting. Guwahati: Gayatri Publications.*
- ✓ *Goyal, V. K., & Goyal, R. Corporate Accounting. New Delhi: PHI Learning.*
- ✓ *Monga, J. R. Fundamentals of Corporate Accounting. New Delhi: Mayur Paperbacks*

## AEC Paper I

### English Communication

**Credits: 4**

SL No.	Modules	Outcomes
1	<b>English Language and Communication: Introduction</b>	<ul style="list-style-type: none"><li>• Communication, its Importance and Factors</li><li>• Types of Communication</li><li>• Verbal and Non-verbal Communication</li><li>• Styles of Communication</li></ul>
2	<b>English Language and Communication: Listening and Speaking</b>	<ul style="list-style-type: none"><li>• Types of Listening</li><li>• Speaking to communicate effectively</li><li>• Style of speaking in Various Situations</li><li>• English Pronunciation</li></ul>
3	<b>English Language and Communication: Reading and Writing</b>	<ul style="list-style-type: none"><li>• Reading methods and techniques.</li><li>• Reading texts to Understand meaning</li><li>• Writing Process</li><li>• Writing short and Long texts</li></ul>
4	<b>English Language and Communication: Grammar and Vocabulary</b>	<ul style="list-style-type: none"><li>• Grammar</li><li>• Sentence structure</li><li>• Functions of Language</li></ul>

#### **Reference Book:**

A Course book for ENGLISH COMMUNICATION (Publisher: Orient Black Swan)

**SEC PAPER I**  
**Business Statistics and Data Interpretation (Semester-II)**

**Credit 3**

**Course Objectives**

The course aims to develop amongst the learners the ability to summarise, analyse and interpret quantitative information for business decision making

**Course Outcomes**

After completion of the course, learners will be able to:

- ✓ Examine and understand the various descriptive properties of statistical data;
- ✓ Evaluate probability rules and concepts relating to discrete and continuous random variables to answer questions within a business context;
- ✓ Analyse the underlying relationships between the variables to use simple regression models;
- ✓ Analyse the trends and tendencies over a period of time through time series analysis;
- ✓ Examine and apply index numbers to real life situations.

**Course Outlines**

**Unit 1: Descriptive Statistics**

Measures of Central Tendency: Concept and properties of averages including Arithmetic mean, Median and Mode. Measures of Dispersion: An overview of Range, Quartile Deviation and Mean Deviation; Standard deviation; Variance and Coefficient of variation. Moments: Computation and significance; Skewness; Kurtosis.

**Use Microsoft Excel for data analysis and interpretation**

**Unit 2: Probability and Probability Distributions**

Theory and approaches to probability; Probability Theorems: Addition and Multiplication; Conditional probability and Bayes' Theorem. Expectation and variance of a random variable. Discrete Probability distributions: Binomial and Poisson (Properties and Applications). Normal distribution: Properties of Normal curve; Computation of Probabilities and Applications.

**Use Microsoft Excel for data analysis and interpretation**

**Unit 3: Time Series Analysis and Index Numbers**

Time Series Data; Components of time series; Additive and Multiplicative models. Trend analysis; Fitting of trend using principle of least squares – linear and second-degree parabola. Shifting of Origin and Conversion of annual linear trend equation to quarterly/monthly basis and vice-versa.

Meaning and uses of index numbers. Construction of Index numbers: Methods of Laspeyres, Paasche and Fisher's Ideal index.

**Use Microsoft Excel for data analysis and interpretation**

**Suggested Readings**

- ✓ Anderson, D. R. (2019). *Statistics for learners of Economics and Business*. Boston, United States: Cengage Learning.
- ✓ "Statistics for Management" by Richard I. Levin and David S. Rubin - published by Kalyani Publishers, Cuttack, Odisha.
- ✓ Douglas A. Lind, Robert D. Mason, William G. Marchal. (2022).
- ✓ *Basic Statistics for Business and Economics*. New York, United States: Mc-Graw-Hill International editions.
- ✓ Gupta, S. C., & Gupta, I. (2018). *Business Statistics*. Mumbai, India: Himalaya Publishing House.
- ✓ Gupta, S. P., & Gupta, A. (2018). *Business Statistics: Statistical Methods*.



**VAC Paper II**  
**Good Citizenship**

**(3 Credits)**

**Objectives/Learning Goals of the Course**

- Development of good human being and a responsible citizen
- Developing a sense of right and wrong leading to ethically correct behavior.
- Inculcating a positive attitude and a healthy work culture.

**Learning Objectives:**

- Understanding Basic Values of Indian Constitution.
- Understand how to be a patriot.
- Develop professionalism and understand the ethics relating to various professions.

**1. Indian Constitution (1 Credit= 15 hours)**

Salient Values of Preamble: Sovereign, Socialist, Secular, Democratic, Republic, Justice, Liberty, Equality and Fraternity

**2. Patriotism (1 Credit= 15 hours)**

Patriotic Value and ingredients of nation building, Concept of Good Citizenship, Emotional connection with the country, Duties of citizens and Qualities of good citizens

**3. Work Ethics (1 Credit= 15 hours)**

Punctuality, Cleanliness, Law abidingness, Rational Thinking and Scientific Temper

# Semester III

Semester	Core-I	Core-II	Core-III	Multi-disciplinary	AEC	SEC	VAC
Semester III	1. E-commerce Customer Service 2. Reverse Logistics for E-Commerce 3. Hub & Line Operations 4. Fulfilment Operations	GST & Indirect Tax	Management Accounting	Financial Market & Institutions			

**E-Commerce Customer Service****Credit 4**

<b>Unit</b>	<b>Topics</b>
I	<b>Creating the Customer-Centric Organization</b> 1.1 Championing Customer Service 1.2 In-Focused or Customer-Focused: Where Do You Stand? 1.3 Building a Winning Service Strategy 1.4 Better Service through Surveys: Questionnaires, Focus Groups, and Interviews
II	<b>Communicating Effectively with Customers</b> 2.1 Developing Active Listening Skills 2.2 Speaking in the Positive: Words and Tone of Voice 2.3 Body Language: Yours and Theirs 2.4 Sending a Message Through Physical Surroundings 2.5 Improving Verbal communication 2.6 Understanding Your Customer's Communication Style
III	<b>Customer Service Strategies</b> 3.1 Anticipating Needs- The Key to Your Customer's Heart 3.2 Ten Principles to Keep Your Clients Happy and Loyal! 3.3 Exceeding Your Clients' Expectations 3.4 The Value of Customer Service Training for Your Staff 3.5 7 Ways to Make Your Customers Feel Important 3.6 Recovering from Customer Service Blunders 3.7 Five Customer Service Commandments 3.8 When It is Time to Fire a Customer
IV	<b>Managing the Customer Encounter</b> 4.1 Showing Customers That You Value Their Business 4.2 Understanding Customer Behaviour and Creating Positive Outcomes 4.3 Asking the Right Questions 4.4 Dealing Effectively with Customer Hand-Offs 4.5 Making the Customer's Problem Your Problem 4.6 Telling the Customer "No" 4.7 Closing the Customer Encounter 4.8 Following Through with the Customer
V	<b>Customer Service Tools</b> 5.1 The Client Needs Analysis(CNA) 5.2 The Customer Service Survey &Analysis

**Text & Reference Books:**

- 1.Course Material Prepared by LSC

**CORE I****PAPER X****Reverse Logistics for E-Commerce****Credit 4**

<b>Unit</b>	<b>Topics</b>
I	Introduction 1.1 What is Reverse Logistics & its importance in Ecommerce? 1.2 Reverse Logistics challenges for ecommerce 1.3 Trends in Reverse Logistics 1.4 Implementing the right reverse logistics strategy? 1.5 Types of returns in reverse logistics
II	Reverse Processes 2.1 Forward vs. Reverse Logistic 2.2 Stages in Reverse logistics: Gate keeping, Collection, Sorting stage, Processing stage. 2.3 Challenges and barriers in Reverse Process 2.4 Tools and applications in Reverse logistic operations
III	Prospects of Reverse Logistics 3.1 Shipping or redistribution system 3.2 Information system 3.3 Performance management 3.4 Innovations in Reverse Logistics 3.5 Reverse Logistic Market Prospects
IV	Creating value through reverse logistics 4.1 Network design and management integrating reverse logistics, General strategic decisions, target markets, networks, products, Processes 4.2 Strategic, tactical, and operational decisions specific to Reverse logistics 4.3 Monitoring and controlling the value of reverse logistics 4.4 Maintaining partnerships using reverse logistics..
V	Technology and Reverse Logistics 5.1 New Technology Trends in Reverse Logistics 5.2 Digital Transformation in Reverse Logistics 5.3 AI for Reverse Logistics

**Text & Reference Books:**

Course Material Prepared by LSC

**Hub and Line Operations****Credit 4**

<b>Unit</b>	<b>Topics</b>
I	Introduction 1.1 What is Hub and line Logistics in Ecommerce? 1.2 Importance of line haul Logistics in Ecommerce 1.3 Line haul challenges for ecommerce 1.4 Trends in Line haul Logistics 1.5 How to optimize a Line Haul or Line Haul Network? 1.6 What are the results of optimizing a Line Haul or Line Haul Network?
II	Inbound Logistics 2.1 What is Inbound Logistics? 2.2 Objectives of Inbound Logistics 2.3 Steps in Inbound Process 2.4 Role of Inbound Supply chain Management in ecommerce logistics
III	Outbound Logistics 3.1 What is Outbound Logistics? 3.2 Objectives of Outbound Logistics 3.3 Steps in Outbound process 3.4 What are the Differences Between Inbound and Outbound Logistics? 3.5 Tools Utilized by Both Inbound and Outbound Logistics
IV	Machines & Equipment 4.1 Introduction to the machines & equipment used 4.2 Types of sorters 4.3 Types of equipment to handle 4.4 Equipment and machine handling Compliances
V	Prospects of Line haul Logistics 5.1 Innovations in Line Haul Logistics 5.2 New Technology Trends in Line Haul Logistics 5.3 Future Automated Line Haul Processes 5.4 Line Haul Market Prospects

**Text & Reference Books:**

- 1.Course Material Prepared by LSC

**Fulfilment Operations****Credit 4**

<b>Unit</b>	<b>Topics</b>
<b>I</b>	<b>Introduction to fulfilment operations</b> 1.1 What is Fulfilment? 1.2 Understanding ECommerce Fulfilment 1.3 Logistics Organization Forms in E-Commerce 1.4 Characteristics of Fulfilment Service
<b>II</b>	<b>Fulfilment Models</b> 2.1 Fulfilment offered as a key service 2.2 Fulfilment offered by sales platforms 2.3 Fulfilment offered by logistics service providers 2.4 Fulfilment offered by other market players
<b>III</b>	<b>Logistics and Fulfilment Services</b> 3.1 Key Drivers 3.2 Warehousing Aspects 3.3 Freight Transit 3.4 Packaging
<b>IV</b>	<b>Technology in fulfilment</b> 4.1 Fulfilment Processes & platforms 4.2 E-Fulfilment and Customer retention strategies
<b>V</b>	<b>Prospectus in Fulfilment</b> 5.1 Fulfilment of Bundled Orders using technology 5.2 Mini Fulfilment via tech

**Text & Reference Books:**

1. Course Material Prepared by LSC

## CORE II

## PAPER II

### GST and other Indirect Taxes (Customs)

**Credit 4**

#### **Course Objectives**

The course aims to provide understanding about salient features of GST law and implications of its various provisions for different classes of suppliers, to be applied in real life business scenario.

#### **Course Outcomes**

After completion of the course, learners will be able to:

- Explain the concept, need, and utility of indirect taxes;
- Implement the provisions relating to supply under GST in real life scenario;
- Apply the provisions of levy of GST and identify various returns under GST and payment of taxes;
- Evaluate the concepts of Customs Act, various custom duties and computation of the assessable value for charging customs duty

#### **Unit I: Basic Concepts**

Concept and features of Indirect Taxes, Difference between Direct and Indirect Taxes, Concept of GST, Relevant Definitions under GST law, Constitutional aspects of GST. GST Council: Constitution, Structure and functioning.

#### **Unit II: Concept of supply and Levy of GST**

Concept of supply including composite and mixed supply, Place, Time and Value of taxable supply, Significance of consideration. Basis of Charge of GST, Inter-State Supply, Intra-state supply, GST rates notified for supply of various goods and services, Reverse charge mechanism, Composition levy, Exemptions from GST, Power to grant exemptions, Exempted goods under exemption notifications, Exempted services under exemption notifications, Input tax credit.

#### **Unit III: Procedures under GST**

Registration under GST law, Tax invoice credit and debit notes, Different GST returns, Electronic liability Ledger, Electronic credit Ledger, Electronic cash ledger, Different assessment under GST, Interest applicable under GST (Period), Penalty under GST, Various provisions regarding e-way bill in GST, Mechanism of Tax Deducted at Source (TDS) and tax collected at source (TCS), Audit under GST.

#### **Unit IV: E-filing of GST returns and Customs Law**

Understanding the GST return preparation process, Data entry and validation of GST return details, Uploading GST returns using offline/online tools, Filing GSTR-1 (Outward Supplies), Filing GSTR-3B (Monthly Summary Return), Filing GSTR-9 (Annual Return). Compliance and Error Handling; Overview of GST compliance requirements, Identifying common errors and discrepancies in GST returns, Strategies for error correction and reconciliation. Basic concepts, Territorial waters and High seas; Types of custom duties; Valuation.

#### **Suggested Readings**

- ✓ Rout P.K. & Others *GST and Indirect Taxes*, kalyani publishing house.
- ✓ Haldia, Arpit&Mohd, *Taxmann's GST Law & Practice*
- ✓ Bangar, Vandana&Bangar,Yogendra, *Comprehensive Guide to Indirect Tax Laws–GST & Customs*

#### **Latest revisions and notifications relating to GST & Customs**



## CORE III

## PAPER II

### Management Accounting

**Credit 4**

#### **Course Objectives**

The course aims to enable students to acquire knowledge of concepts, methods and techniques of management accounting for the purpose of managerial planning, control and decision making.

#### **Course Outcomes**

After completion of the course, learners will be able to:

- Examine the conceptual framework of Management Accounting and identify the differences between various forms of accounting.
- Analyse budgetary control system as a tool of managerial planning and control.
- Evaluate the standard costing system as a tool of managerial control.
- Recognise the concept of marginal costing and cost-volume-profit analysis.
- Analyse techniques of decision making.
- Discuss the concept of responsibility accounting and performance measurement.

#### **Unit 1: Introduction to Management Accounting**

Meaning, objectives, nature and scope of management accounting, Difference between different forms of accounting- Cost, Financial and Management accounting, Cost control and Cost reduction.

#### **Unit 2: Budgetary Control and Standard Costing Systems**

- Budgeting and Budgetary Control: Concept of budget, budgeting and budgetary control; objectives, merits and limitations; Functional Budgets; Fixed and Flexible budgeting; An overview of different approaches to budgeting (Zero base budgeting, Performance budgeting and Programme budgeting)
- Standard Costing and Variance Analysis: Meaning of standard cost and standard costing; advantages, limitations and applications; Variance Analysis – material, labour, overheads and sales variances. Control ratios.

#### **Unit 3: Marginal Costing**

Concept of marginal cost and marginal costing; Absorption versus Variable Costing: Distinctive features and income determination; Cost-volume-profit analysis; Break-even Analysis-Statements, mathematical and graphical approaches; Profit-volume ratio, angle of incidence, margin of safety, key factor, determination of cost indifference point.

#### **Unit 4: Decision Making**

Steps in Decision making process. Concept of relevant costs. solving various short -term decision making problems using marginal costing and differential costing techniques – Profitable product mix, Acceptance or rejection of special/ export offers, Make or buy, Addition or elimination of a product line, sell or process further, operate or shut down and Pricing decisions.

### **Suggested Readings**

- ✓ *Sharma / Gupta Management accounting, kalyani publishing house.*
- ✓ *Management Accounting, 4th Edition Pillai R.S.N. & Bagavathi S. Chand Publishing*
- ✓ *Arora, M. N. (2019).Management Accounting. Delhi, India: Himalaya Publishing House.*
- ✓ *Management Accounting: Principles & Practice, 3rd Edition Sahaf M.A. Vikas Publishing*
- ✓ *COST AND MANAGEMENT ACCOUNTING RAVI M KISHORE, taxman publishing house.*
- ✓ *Goel, R. K., & Goel, I. (2019). Concept Building Approach to Management Accounting for B.Com(Hons.), Delhi, India: Cengage.*
- ✓ *Maheshwari, S. N., & Mittal, S. N. (2019).Management Accounting. Delhi, India: Shri Mahaveer Book Depot.*
- ✓ *Maheshwari, S. N., Maheshwari, S. K., & Maheshwari, S. K. (2021).Principles of Management Accounting. Delhi, India: Sultan Chand & Sons.*
- ✓ *Maheshwari, S. N. (2015). Management Accounting and Financial Control. Delhi, India: Sultan Chand & Sons.*
- ✓ *Shah, P. (2015).Management Accounting. Delhi, India: Oxford University Press.*
- ✓ *Singh, S. (2023). Management Accounting. Delhi, India: PHI Learning Pvt. Limited.*
- ✓ *Singh, S. K., & Gupta, L. (2021). Management Accounting: Theory and Practice. Delhi, India: A. K. Publications.*
- ✓ *Tulsian, P. C., & Tulsian, B. (2023).Advanced Management Accounting.*
- ✓ *Drury, C. (2020).Management and Cost Accounting. China: Cengage.*
- ✓ *Horngren, C. T., Foster, G., & Dattar, S. M. (2002). Cost Accounting: A Managerial Emphasis. Delhi, India: Prentice Hall of India Ltd.*
- ✓ *Khan, M. Y., & Jain, P. K. (2021).Management Accounting. Delhi, India: Tata McGraw Hill Publishig Co.*
- ✓ *Usry, M. E., & Lawrence, H. H. (2010). Cost Accounting: Planning and Control. Delhi, India: S. Chand.*

**MDC PAPER II**  
**Financial Markets and Institutions**

**Credit 3**

**Course Objectives**

- Understand the structure and organization of financial markets.
- Analyze the functions and operations of various financial institutions.
- Explore the role of financial intermediaries in the economy.
- Examine the regulatory frameworks governing financial markets and institutions.
- Assess the impact of financial market developments on economic activity.
- Develop critical thinking and analytical skills in evaluating financial market trends and dynamics

**Course Outcomes**

After completion of the course, learners will be able to:

- Students are able to know the features of different financial markets and their role in economic development.
- Students are able to know the functions of financial markets and capital markets.
- Students are able to know about the commercial Banks and their role in project financing and working capital finance and also about the massive growth of NPAs.
- Students are able to know about the role of insurance companies, NBFCs and Mutual Funds.
- Understand the basics of financial services and its various dimensions.

**Unit I: An Introduction to Financial System and its Components**

Financial markets and institutions. Financial intermediation, Functions and components of Financial System Financial system and economic development .An overview of the Indian financial system.

**Unit II: Financial Market**

Money market-functions, organization and instruments. Role of Central Bank in money market; Indian money market-An overview. Capital Markets- functions, organization and instruments. Indian debt market; Indian equity market-primary and secondary markets; Role of stock exchanges in India.

**Unit III: Financial Institution**

Commercial banking-introduction, its role in project finance and working capital finance. Development Financial Institutions (DFIs).problems of NPA, Financial Inclusion. Life and non-life insurance companies in India; Non-banking financial companies (NBFCs); Mutual Funds; Types and role in Capital Market, Regulation of Mutual Funds.

**Suggested Readings**

- ✓ Gupta S. K. *Financial Market, Institution and Services*, kalyani publishing house.
- ✓ Bhole, L.M., *Financial Markets and Institutions*. Tata McGraw Hill Publishing Company
- ✓ Khan, M.Y., *Indian Financial System Theory and Practice*. New Delhi: Vikas Publishing House
- ✓ *Financial Services and Markets*, Pandian Punithavathy Vikas Publishing
- ✓ Sharma, G.L., and Y.P. Singh. *Contemporary Issues in Finance and Taxation*. Academic Foundation, Delhi
- ✓ Khan and Jain, *Financial Services*, Tata McGraw Hill
- ✓ Singh, J.K., *Venture Capital Financing in India*. Dhanpat Rai and Company, New Delhi.
- Annual Reports of Major Financial Institutions in India

# Semester IV

Semester	Core-I	Core-II	Core-III	Multi-disciplinary	AEC	SEC	VAC
Semester IV	5. Packaging for E-Commerce 6. Business Data Analysis 7. Business Application Software	Corporate Legal Framework	Auditing & Corporate Governance		English: Word and Presentation Skills	Business Regulatory Framework	

**Packaging for E-Commerce****Credit 4**

Unit	Topics
I	<b>Introduction to packaging</b> 1.1 Brief Introduction 1.2 Definition of Key Terms 1.3 What is Packaging 1.4 The origins of packaging 1.5 Packaging and the Modern Industrial Society 1.6 The Modern Packaging Industry
II	<b>Types and Functions of Packaging</b> 2.1 Types of Packaging 2.2 Packaging Materials 2.3 The Functions of Packaging
III	<b>Understanding the Brand</b> 3.1 What is a Brand? 3.2 Elements that make up a Brand 3.3 Is there a difference between a Brand, a Product and a company? 3.4 Brand History 3.5 The marketing matrix 3.6 The basic brand development process 3.7 Guidelines for good brand management
IV	<b>The Concept of Brand Equity</b> 4.1 Motivations for Brand Equity 4.2 Rationale for Studying Brand Equity 4.3 Customer-based brand equity 4.4 Brand Knowledge 4.5 Guidelines for Managing Customer-Based Equity 4.6 Complementary Approaches to Measuring Customer-Based Equity 4.7 Asset Dimensions of Brand Equity 4.8 A five assets model of brand equity (Benefits of customer-based brand equity)
V	<b>The Packaging Journey in E-Commerce</b> 5.1 The journey 5.2 Consumer research 5.3 Order 5.4 Inbound logistics 5.5 Preparation of orders 5.6 Picking 5.7 Sorting 5.8 Packing 5.9 Shipment preparations 5.10 Outbound logistics 5.11 Order delivery and receipt 5.12 Returns

**Text & Reference Books:**

1. Course Material Prepared by LSC

**Course Objectives**

- Understand the fundamentals of data analytics: Students should be able to grasp the basic concepts and principles of data analytics, including data types, data sources, and data processing techniques.
- Develop proficiency in data manipulation and exploration: Students should gain hands-on experience in manipulating and exploring data using tools such as spread sheets, databases, and data visualization software.
- Learn statistical methods and techniques for data analysis: Students should acquire knowledge of statistical methods commonly used in business data analysis, including descriptive statistics, hypothesis testing, regression analysis, and time series analysis.
- Apply data analytics techniques to real-world business problems: Students should be able to identify business problems that can be addressed through data analysis, formulate appropriate analytical approaches, and interpret the results to make informed business decisions.
- Gain proficiency in data visualization: Students should develop skills in visualizing data effectively using graphs, charts, and dashboards to communicate insights and findings to stakeholders.
- Understand the ethical and legal considerations in data analytics: Students should be aware of ethical issues related to data privacy, confidentiality, and bias, and understand the legal frameworks governing the collection, storage, and use of data.
- Explore emerging trends and technologies in business data analytics: Students should stay updated on the latest trends, tools, and technologies in the field of data analytics, including machine learning, artificial intelligence, and big data platforms.

**Course Outcomes**

After completion of the course, learners will be able to:

- Learn about the basics of analytics, the types and their application;
- Learn the technique of projecting growth, income and cash from accounting data for the future through time-series models;
- Learn accounting ratios and forecasting through the SLR model;
- Learn data visualization through graph, SLR & the method of Least Squares for estimation of parameters;
- Learn the use of R-Programming for analysing accounting data.

**Unit 1: Introduction to Business Data Analytics**

Understanding Data Analytics in Business, Definition and Importance of Business Data Analytics, Overview of Data Analytics Lifecycle: Collection, Cleaning, Analysis, Interpretation, and Visualization, Role of Data Analytics in Decision-Making and Business Strategy, Data Collection and Preprocessing. Sources of Business Data: Internal and External, Data Collection Methods: Surveys, Interviews, Observations, etc. Data Cleaning and Preprocessing Techniques: Handling Missing Values, Outliers, and Data Transformation, Exploratory Data Analysis (EDA). Descriptive Statistics: Measures of Central Tendency, Dispersion, and Distribution, Data Visualization Techniques: Histograms, Box Plots, Pie-charts, Doughnut, Scatter Plots etc. Identifying Patterns and Trends in Data using EDA

## **Unit 2: Business Analytics Tools in Excel**

Introduction to Excel for Data Analytics, Advanced Data Analysis in Excel, Pivot Tables and Pivot Charts for Data Summarization and Visualization. Data Analysis Tools: Goal Seek, Solver, Scenario Manager, Slicer etc., Practical Applications in Excel, Case Studies and Business Scenarios, Hands-on Exercises and Projects to Apply Excel Skills in Real-World Analytics Tasks, Integration with External Data Sources and Automation Techniques

## **Unit 3: Data Visualization with Power BI**

Introduction to Power BI, Overview of Power BI: Features, Components, and Benefits, Connecting to Data Sources: Excel, Databases, Online Services, etc. Creating Interactive Dashboards and Reports, Data Transformation and Modeling in Power BI, Creating Advanced Data Visualizations: Charts, Maps, and Gauges, Advanced Analytics and Insights in Power BI, Analyzing Data with Power BI, Sharing and Collaborating on Power BI Dashboards and Reports

## **Unit 4: Data Visualization with Tableau**

Introduction to Tableau, Overview of Tableau Desktop and Tableau Server, Connecting to Data Sources: Excel, Databases, Cloud Services, etc. Building Interactive Dashboards and Visualizations, Data Preparation and Analysis in Tableau, Data Cleaning and Transformation using Tableau Prep Builder, Exploratory Data Analysis with Tableau Desktop: Drag-and-Drop Analytics, Creating Calculated Fields and Parameters, Advanced Visualization Techniques in Tableau, Implementing Advanced Chart Types: Tree Maps, Heat Maps, and Dual Axis Charts, Dashboard Design Best Practices and Interactivity Features

## **Project Work and Assessment:**

Application of Business Data Analytics Techniques and Tools in Real-World Business Scenarios, Project Planning, Execution, and Presentation, Integration of Skills Learned Throughout the Course

## **Suggested Readings**

- ✓ *Alexander, M., Decker, J., & Wehbe, B. (2014). Microsoft Business Intelligence Tools for Excel Analysis. New Jersey: Wiley.*
- ✓ *Kumar, D. U. (2017). Business Analytics: The Science of Data Driven Decision Making. New Jersey: Wiley.*
- ✓ *Motwani, B. (2019). Data Analytics with R. New Jersey: Wiley.*
- ✓ *North, M. (2012). Data Mining for the masses. Athens, Georgia: Global Text Project.*
- ✓ *Paul, T. (2011). R Cookbook. New York: O'Reilly Media'*
- ✓ *Provost, F., & Fawcett, T. (2013). Data Science for Business. New York: O'Reilly Media.*



**Course Objectives**

- Understand Financial Modeling Concepts.
- Develop Proficiency in Excel.
- Apply Financial Modeling Techniques.
- Enhance Analytical Skills.
- Communicate Results Effectively.
- Problem-Solving and Decision Making.
- Explore Industry Applications.
- Collaborative Learning

**Course Outcomes**

After completion of the course, learners will be able to:

- Understanding Financial Modeling Principles.
- Proficiency in Excel-Based Modeling.
- Application of Financial Modeling Techniques.
- Effective Communication Skills.
- Critical Thinking and Analytical Skills.
- Practical Skills for Finance Careers.
- Industry-Relevant Knowledge.
- Continuous Learning and Professional Development.

**Unit 1: Introduction to Business Application Software**

Understanding Business Application Software, Definition and Importance of Business, Application Software, Overview of Tally and One ERP Systems, Role of Excel and PowerPoint in Business Operations, Introduction to Tally ERP 9, Installation and Setup of Tally ERP 9, Basic Navigation and Interface Overview, Creating Company Profiles and Configurations, Practical Application of Tally ERP 9, Accounting and Financial Management in Tally, Inventory Management and Stock Control, Generating Financial Reports: Balance Sheet, Profit & Loss Statement

**Unit 2: Advanced Tally Features and Functions**

Advanced Accounting Features in Tally ERP 9, Creation of Ledgers and Sub-ledgers, Advanced Voucher Entries: Contra, Payment, Receipt, Journal, etc., Handling Multi-Currency Transactions, Budgets and Controls in Tally, Tally Customization and Integration, Customizing Tally Reports and Invoice Formats, Integration with Excel for Data Import and Export, Integrating Tally with Other Business Applications, Introduction to One ERP, Overview of Enterprise Resource Planning (ERP), Introduction to One ERP System and Modules, Key Features and Benefits of One ERP Implementation

### **Unit 3: Excel for Business Analysis and Reporting**

- Excel Basics and Functions, Introduction to Excel Interface and Navigation, Basic Formulas and Functions: SUM, AVERAGE, IF, VLOOKUP, etc., Data Entry and Formatting Techniques, Advanced Excel Features, Data Analysis Tools: PivotTables, Pivot Charts, Data Validation, Advanced Formulas and Functions: INDEX-MATCH, SUMIFS, COUNTIFS, etc.
- Excel Macros and Automation, Excel Integration with AI, Introduction to AI Integration in Excel, Using AI-Powered Features for Data Analysis and Prediction, Leveraging AI for Enhanced Decision-Making and Business Insights

### **Unit 4: Effective Presentation with PowerPoint**

PowerPoint Basics and Design Principles, Introduction to PowerPoint Interface and Layout, Designing Effective Slides: Layouts, Fonts, Colors, Graphics, Tips for Creating Engaging Presentations, Advanced PowerPoint Features, Animation and Transition Effects, Slide Master and Custom Templates, AI Integration in PowerPoint, Using AI-Powered Design Suggestions, Leveraging AI for Presentation Insights and Feedback

### **Project Work and Assessment: Practical Application Projects**

Application of Tally, One ERP, Excel, and PowerPoint Skills in Real-World Business Scenarios, Project Planning, Execution, and Presentation

**Corporate Legal Framework**

Credit 4

**Course Objectives**

The course aims to impart the learner's working knowledge of the provisions of the Companies Act, 2013.

**Course Outcomes**

After completion of the course, learners will be able to:

- Explain relevant definitions and provisions relating to issue of prospectus and allotment of shares;
- Synthesize company processes, meetings, and decisions;
- Describe the framework of dividend distribution, Accounts of the company and Audit and Auditors of company;
- Determine the role of Board of directors and their legal position;
- State regulatory aspects involved in Oppression, Mismanagement, corporate restructuring and Winding Up and to study the composition of Adjudicating Authority i.e. NCLT and NCLAT and its powers.

**Unit I: Introduction to Companies Act, 2013**

Important definitions: Prospectus and Share Capital, Allotment of securities, Private Placement, share capital, basic requirements, alteration of share capital, Sweat Equity, Bonus issue, issue of shares at premium and discount, Further issue of shares, buy-back of shares.

**Unit II: Management and Administration**

Board Meetings, Annual General Meeting, Extraordinary General Meeting, Requisites of a valid meeting, Convening of Meetings, Minutes and Resolutions; Postal ballot; voting through electronic matters.

**Unit III: Directors and their Powers**

Board of directors, classification of directors, women directors, independent director; appointment and qualifications of directors; Director Identification Number (DIN); Disqualifications, Removal of directors; Legal positions, Powers, Duties and responsibilities; Additional Director, Alternate Director, Nominee Director, Director appointed by casual Vacancy, Key Managerial Personnel, Managing Director, Manager and Whole Time Director.

**Unit IV: Oppression, Mismanagement, Corporate Restructuring and Winding-Up**

Oppression, Mismanagement, Rights to apply, Powers of Tribunal, Provisions related to Compromises, Arrangement and Amalgamations, Concept and Modes of Winding Up; Provisions of winding up under Insolvency and Bankruptcy Code, 2016. National Company Law Tribunal and Appellate Tribunal-Definitions; Constitution of National Company Law Tribunal; Constitution of Appellate Tribunal; Appeal from orders of Tribunal; Power to punish for contempt.

## **Suggested Readings**

- ✓ *Garg /Gupta/Dhingra Corporate Law, kalyani publisher.*
  - ✓ *CORPORATE LAWS, Vandana Bansal, Anjali Arora & Jyoti Prakash Rath Vikas Publishing.*
  - ✓ *Business and Corporate Laws Tulsian P.C. S. Chand Publishing.*
  - ✓ *Kumar, A. Corporate Laws. New Delhi: Taxmann Publication.*
  - ✓ *Sharma, J. P. An Easy Approach to Corporate Laws. New Delhi: Ane Books Pvt. Ltd.*
  - ✓ *Chadha R., & Chadha, S. (2018). Company Laws. Delhi: Scholar Tech Press.*
  - ✓ *Hicks, A., & Goo, S. H. (2017). Cases and Material on Company Law. Oxford: Oxford University Press.*
  - ✓ *Kuchhal, M. C., &Kuchhal, A. (2020). Corporate Laws. New Delhi: Shree Mahavir Book Depot.*
  - ✓ *Kumar, A. (2019). Corporate Laws. New Delhi: Taxmann Publication.*
- Sharma, J. P. (2018). An Easy Approach to Corporate Laws.*

**Auditing and Corporate Governance****Course Objectives**

The course aims to provide knowledge of auditing concepts, principles, procedures, and techniques in accordance with current legal requirements.

**Course Outcomes**

After completion of the course, learners will be able to:

- Summarise the basic concepts of auditing and acquaint with latest developments in the area of auditing.
- Describe the need of auditing and the role of auditors.
- Demonstrate the principles, procedures and techniques of auditing.
- Interpret the contents of audit reports.
- Analyse the provisions of Companies Act, 2013 relating to auditor and auditing.

**Unit I: Introduction to Auditing**

- Introduction – Meaning - Definition – Objectives – Differences between Accountancy and Auditing – Types of Audit - Advantages of Auditing – Preparation before commencement of new Audit – Audit Notebook – Audit Working Papers – Audit Program, Recent Trends In auditing: Nature & Significance of Tax Audit – Cost Audit - Management audit.
- Internal Control: meaning and objectives. Internal Check: meaning, objectives. Internal Check as regards: Wage Payments, Cash Sales, Cash Purchases. Internal Audit: Meaning - Advantages and Disadvantages of Internal Audit – Differences between Internal Check and Internal Audit.

**Unit II: Vouching And Verification And Valuation Of Assets And Liabilities**

- Meaning - Definition – Importance – Routine Checking and Vouching – Voucher -Types of Vouchers – Vouching of Receipts: Cash Sales, Receipts from debtors, Proceeds of the sale of Investments. Vouching of Payments: Cash Purchases, Payment to Creditors, Deferred Revenue Expenditure
- Meaning and Objectives of verification and valuation – Position of an Auditor as regards the Valuation of Assets – Verification and Valuation of different Items: Assets: Land & Building, Plant & Machinery, Goodwill – Investments - Stock in Trade. Liabilities: Bills Payable - Sundry Creditors – Contingent Liabilities.

**Unit III: Audit of Limited Companies and Audit Report**

- Company Auditor – Appointment – Qualification - Powers - Duties and Liabilities – Professional Ethics of an Auditor, Audit of Educational Institutions – Audit of Insurance Companies- Audit of Co-operative societies.
- **Audit Report and Special Audit** Contents and types of audit report, Qualified and Unqualified report; National Financial Reporting Authority. Special Audit: Banking and Insurance company; Forensic Audit.

## **Unit IV: Corporate Governance**

Conceptual framework of Corporate Governance, Corporate Governance Reforms. Major Corporate Scandals in India and Abroad: Common Governance Problems Noticed in various Corporate Failures. Codes & Standards on Corporate Governance.

### **Suggested Readings**

- ✓ *Das / Das Auditing and Corporate Governance, kalyani publisher.*
- ✓ *P N Reddy & Appannaiah, Auditing, HPH*
- ✓ *BN Tandon, Practical Auditing, Sultan Chand*
- ✓ *Dr. Nanje Gowda, Principles of Auditing, VBH*
- ✓ *Dr. Alice Mani: Principles & Practices of Auditing, SBH.*
- ✓ *K. Venkataramana, Principles And Practice Of Auditing, SHBP.*
- ✓ *MS Ramaswamy, Principles and Practice of Auditing.*
- ✓ *Dinakar Pagare, Practice of Auditing, Sultan Chand*
- Kamal Gupta, Practical Auditing, TMH R.G Sexena - Principles and Practice of Auditing, HP*

S. No	Modules	Outcomes
1.	Orientation for Management	<ul style="list-style-type: none"> <li>• Classroom Manners and Discipline</li> <li>• Conduct of Students (Theory &amp; Practical)               <ul style="list-style-type: none"> <li>• Grooming</li> </ul> </li> <li>• Useful Phrases for Everyday Use               <ul style="list-style-type: none"> <li>• Asking Questions</li> </ul> </li> </ul>
2.	Self Esteem	<ul style="list-style-type: none"> <li>• Know Yourself</li> <li>• Accept Yourself (One Activity through a Psychometric test)</li> </ul>
3.	Etiquettes and Manners	<ul style="list-style-type: none"> <li>• College Etiquettes</li> <li>• Conversation Etiquettes               <ul style="list-style-type: none"> <li>• Social Etiquettes</li> <li>• Telephone Etiquettes</li> </ul> </li> </ul>
4.	Communication Skills (Meaning and Definition)	<ul style="list-style-type: none"> <li>• Spoken English               <ul style="list-style-type: none"> <li>• Phonetics</li> <li>• Accent</li> <li>• Intonation</li> </ul> </li> <li>• Practice Proper Pronunciation through Words and Phrases</li> </ul>
5.	Communication Skills through Extempore	<ul style="list-style-type: none"> <li>• Speaking about Objects, Speaking about People</li> <li>• Speaking about Events, Speaking about Hospitality Industry – Current Trends</li> </ul>
6.	Developing A Positive Attitude	<ul style="list-style-type: none"> <li>• Meaning and Definition of Attitude</li> <li>• How to Develop Positive Attitude               <ul style="list-style-type: none"> <li>• 7 Steps to Change Attitude</li> </ul> </li> </ul>
7.	Group Discussion	<ul style="list-style-type: none"> <li>• Introduction to GD</li> <li>• Do's and Don'ts of GD</li> <li>• Useful words Phrases</li> </ul>
		<ul style="list-style-type: none"> <li>• Practice on Basic GD topics</li> </ul>
8.	Listening Skills	<ul style="list-style-type: none"> <li>• Meaning and Significance</li> <li>• Do's and Don'ts of Listening</li> <li>• Guidelines for Effective Listening</li> <li>• Problems and Solutions to become Active Listener</li> </ul>
9.	Current Affairs	<ul style="list-style-type: none"> <li>• National &amp; International Ministers and Leaders along with News Makers</li> <li>• Countries, Capitals and Currencies</li> <li>• Political Scenario of various Countries</li> <li>• Important Acronyms of International and National Organizations</li> </ul>

10.	<b>Fundamental of Communication</b>	<ul style="list-style-type: none"> <li>• <b>Meaning and Significance of Communication</b> <ul style="list-style-type: none"> <li>• <b>Process of Communication</b></li> </ul> </li> <li>• <b>Principles of Effective Business Communication</b> <ul style="list-style-type: none"> <li>• <b>7Cs</b></li> </ul> </li> <li>• <b>How to Improve Command over Spoken and Written English</b> <ul style="list-style-type: none"> <li>• <b>Effective Listening</b></li> </ul> </li> </ul>
11.	<b>Communicating in a Multicultural World</b>	<ul style="list-style-type: none"> <li>• <b>Idea of A Global World</b></li> <li>• <b>Impact of Globalization on Organizational and Multicultural Communication</b></li> <li>• <b>Understanding Culture for Global Communication</b> <ul style="list-style-type: none"> <li>• <b>Etic and Emic Approaches to Culture</b></li> </ul> </li> <li>• <b>The Cross-Cultural Dimensions of Business Communication</b> <ul style="list-style-type: none"> <li>• <b>Technology and Communication</b></li> </ul> </li> <li>• <b>Ethical &amp; Legal Issues in Business Communication</b></li> <li>• <b>Overcoming Cross-Cultural Communication</b></li> </ul>
12.	<b>Business Letter Writing and Presentation Tool</b>	<ul style="list-style-type: none"> <li>• <b>Need, Functions, and Layout of Letter Writing</b></li> <li>• <b>Types of Letter Writing: Persuasive Letters, Request Letters, Sales Letters, and Complaints, Employment-related letters Interview Letters, Promotion, Letters, Resignation Letters</b></li> </ul>
13	<b>Departmental Communication</b>	<ul style="list-style-type: none"> <li>• <b>Barriers to Communication</b> <ul style="list-style-type: none"> <li>• <b>Meaning, Need and Types</b> <ul style="list-style-type: none"> <li>• <b>Newsletters</b></li> </ul> </li> <li>• <b>Project and Report writing</b></li> <li>• <b>How to make a Presentation</b></li> </ul> </li> <li>• <b>Various Presentation Tools, along with Guidelines for Effective Presentation,</b></li> </ul>



**SEC PAPER II**  
**Business Regulatory Framework**

**Credit 3**

**Course Objectives**

- Inculcate among the students the basic principles of law connected with business transactions.
- To enable students to apply the law while entering into contracts
- To provide a basic idea of the law relating to partnership and sale of goods
- To provide an outline of the fundamentals of Company Law
- To convey the core ideas of Intellectual Property Rights

**Course Outcomes**

**After completion of the course, learners will be able to:**

- CO1: Know the basics of the laws related to contracts
- CO2: Demonstrate an understanding of the legal environment of business
- CO3: Apply basic knowledge to business transactions and formation of contracts
- CO4: Understand and evaluate the law applicable to companies
- CO5: Understand and apply the basic principles of IPR

**Course Outlines**

**UNIT I: Indian Contract ACT, 1872**

Nature of contract and its essentials, Void, valid and voidable contracts, Consent, consideration and its' impact on contract, Agreements in restraint of trade, Performance, breach, revocation and termination of contract, Agency and bailment contracts, Contract of Indemnity, Contract of Guarantee and Pledge.

**UNIT II: Sale of Goods Act,1930**

Nature of sale, conditions and warranties, Performance of contract of sale and right of unpaid seller. Bailment and Pledge.

**UNIT III: Competition Act, 2002 and Consumer Protection Act, 2019** Competition Act,2002: Objectives and basic concepts, Consumer, goods, service, Prohibition of anti-competitive agreements, Prohibition of Abuse of Dominant Position; Consumer Protection Act, 2019: Important definitions, Consumer Disputes Redressal Commission, Measures to Prevent Unfair Trade Practices, Offences and Penalties

**Suggested Readings**

- ✓ Garg K.C. / *Business Law (Hons.)*, kalyani publisher.
- ✓ Bose, D. C. (2008). *Business Law*. New Delhi: PHI Limited.
- ✓ *Business Laws: Semester I: (NEP 2020 for the University of Delhi)* Kuchhal M.C. & Kuchhal Vivek Vikas Publishing
- ✓ *Business Laws for B.Com. (Hons.)* Tulsian P.C. &Tulsian Bharat S. Chand Publishing
- ✓ Chopra, R. K. (2015). *Business Laws*. New Delhi: Himalaya Publishing House.
- ✓ Kuchhal, M. C., & Kuchhal, V. (2018). *Business Laws*. New Delhi: Vikas Publishing.
- ✓ Singh, A. (2009). *Business Law*. Delhi: Eastern Book Company
- ✓ Chadha R., & Chadha, S. (2018). *Company Laws*. Delhi: Scholar Tech Press.
- ✓ Hicks, A., & Goo, S. H. (2017). *Cases and Material on Company Law*. Oxford: Oxford University Press. Kuchhal, M. C., & Kuchhal, A. (2020). *Corporate Laws*. New Delhi: Shree Mahavir Book Depot.
- ✓ *Intellectual Property Rights –Law & Practice*, ICSI Materials

# Semester V & Semester VI: Apprenticeships

# Semester VII & VIII

## Research Methodology & Research Ethics

Credit 4

### Course Objectives

To acquaint students with the concepts of Survey and Research and provide inputs relating to research methodology, the process of research report writing.

### Course Outcomes

After completion of the course, learners will be able to:

- Understand Meaning of Research and role of research in various functional areas;
- Formulate hypothesis and research design;
- Identify Methods of Data collection and pilot study;
- Develop Processing and Analysis of data;
- Apply Report writing techniques and draft research report

### Unit-1: Introduction to Research Methodology

Definition of research, Importance of research in academic and professional contexts, Types of research: qualitative vs. quantitative. Research Design and Planning; Formulating research questions and objectives, Selecting appropriate research designs: experimental, observational, survey, case study Developing research hypotheses and variables

### Unit-2: Data Collection Methods and Sampling Techniques

Surveys: design, administration, and analysis. Interviews: types, techniques, and ethical considerations. Observational research: participant observation, structured observation. Probability sampling methods: simple random sampling stratified sampling, cluster sampling Non-probability sampling methods: convenience sampling, purposive sampling, snowball sampling.

### Unit-3: Data Analysis Techniques and Research Project Design

Qualitative data analysis methods: thematic analysis, content analysis, grounded theory, Quantitative data analysis methods: descriptive statistics, inferential statistics, and regression analysis. Developing a research proposal: objectives, literature review, methodology, timeline. Planning and executing a research project: data collection, analysis, and interpretation

### Unit-4: Research Ethics

Ethical principles in research: integrity, respect, fairness, responsibility. Informed consent and confidentiality, Avoiding plagiarism and maintaining academic integrity

### Suggested Readings

- ✓ Swain A.K.P.C *Business Research Method & Project Work*, kalyani publisher.
- ✓ *Research Methodology*, Cauvery R./ Nayak, Sudha U.K./ Girija M. & Meenakshi R.S. Chand Publishing
- ✓ *Research Methodology: Concepts and Cases*, Chawla Deepak & Neena Sodhi Vikas Publishing
- ✓ Cooper, D. R. & Schindler, P. S., *Business Research Methods*. Boston, Mass.: McGraw-Hill/Irwin
- ✓ Greene, W. H., *Econometric Analysis*. Pearson Pvt. limited
- ✓ Zikmund, W. G., Babin, B. J., Carr, J. C., & Griffin (2013). *Business Research Methods*. Cengage Learning limited

**Fundamentals of Securities Analysis and Portfolio Management**

**Credit 4**

**Course Objectives**

To expose the students on the various avenues available for effective investment and possible way to avoid risk in investments through portfolio Management.

**Course Outcomes**

After completion of the course, learners will be able to:

- Understand the basic concepts of security and portfolio
- Analyze the individual security
- Construct and Manage a Portfolio
- Evaluate and revise the portfolios

**Unit I**

- Introduction to Security: Nature and Scope of Security Analysis; Savings vs. Investment, Elements of Investment, Objectives of Investment, Investment Philosophy, Types of Investor, Investor, Speculator & Gambler, Investment Avenues, Features of Investment, Process of Investment, Contemporary Issues in Investment Management.
- Measurement of Risk and Return: Measurement of Stock Return, Systematic Risk and Unsystematic Risk, Measurement of Beta. Measuring Risk and Return in Practice (Using Ms-Excel).

**Unit-II**

- Equity Analysis: Fundamental Analysis: Economic Analysis, Industry Analysis and Company Analysis. Technical Analysis: Various Prices and Volume Indicators, Indices: Various Types of Trends and Indices.
- Market Efficiency: Concept and Importance, Random Walk Theory, the Efficient Market Hypothesis. Forms of Market Efficiency, Testing Different Form of Market Efficiency Using MS-Excel/SPSS

**Unit-III**

Portfolio Management: Meaning, Importance and Objectives, Phase of Portfolio Management. Portfolio Analysis: Estimating Rate of Return and Standard Deviation of Portfolio Returns; Effects of Combining Securities; Markowitz Risk-Return Optimization.

**Unit-IV**

Single Index Model: Portfolio Risk: Portfolio Market Risk and Unique Risk, Sharpe's Optimization Solution. Capital Asset Pricing Model and Its Assumptions, Capital Market Line, Security Market Line; Risk Free Lending and Borrowing. Arbitrage Pricing Theory and Multifactor Asset Pricing Models

**Suggested Readings**

- ✓ Barua, Raghunathan and Verma: Portfolio Management, Tata McGraw Hill, Delhi.
- ✓ Bhalla V. K. - Investment Management, Portfolio Analysis - S. Chand, New Delhi.
- ✓ Clark, James Francies: Investment management. McGraw Hill, International Edition, New York.

## **Core XVIII**

### **Fundamentals of Operation Research and Quantitative Technique**

**Credit 4**

#### **Course Objectives**

- Understand the fundamental concepts and principles of operations research and quantitative techniques.
- Learn mathematical modeling techniques for representing real-world problems in OR.
- Develop proficiency in optimization methods, including linear programming, integer programming, and nonlinear programming.
- Gain practical skills in applying quantitative techniques to analyze and solve business, engineering, and management problems.
- Learn simulation techniques for modeling stochastic systems and uncertainty in decision-making.
- Explore applications of OR and quantitative techniques in diverse fields such as supply chain management, logistics, finance, and healthcare.
- Develop critical thinking and problem-solving skills through hands-on exercises and case studies.
- Communicate quantitative analysis results effectively through written reports and presentations.

#### **Course Outcomes**

After completion of the course, learners will be able to:

- Foundational Knowledge of Operations Research.
- Proficiency in Mathematical Modeling.
- Competence in Optimization Techniques.
- Understanding of Simulation Modeling.
- Applications of OR in Diverse Fields.
- Critical Thinking and Problem-Solving Abilities.
- Effective Communication of Analysis Results.
- Practical Skills for Decision Support

#### **Unit- 1: Introduction to Operations Research**

Definition and scope of operations research, Historical development of OR and its applications, Role of quantitative techniques in decision-making. Mathematical Modeling; Formulation of mathematical models for real-world problems, Linear and nonlinear models, Objective functions, decision variables, and constraints

## **Unit-2: Optimization Techniques and Network Analysis**

Linear programming: formulation, graphical solution, simplex method, Integer programming: branch and bound, cutting planes, Nonlinear programming: gradient-based methods, convex optimization. Network modeling techniques: critical path method (CPM), program evaluation and review technique (PERT), Shortest path problems, minimum spanning trees, maximum flow problems

## **Unit-3: Simulation Modeling**

Simulation methodology: discrete event simulation, Monte Carlo simulation, Random number generation, input modeling, output analysis, Applications of simulation in business and engineering. Decision Analysis; Decision trees: construction, analysis, and evaluation, Utility theory and risk analysis, Sensitivity analysis and decision-making under uncertainty

## **Unit-4: Applications of Operations Research**

Supply chain optimization, Inventory management, Production planning and scheduling, Transportation and logistics. Case Studies and Practical Applications, Real-world case studies applying OR and quantitative techniques, Group projects analyzing and solving complex problems using quantitative methods, Presentation and communication of analysis results

## **Suggested Readings**

- ✓ Operations Research, 4th Edition , Kalavathy S. Vikas Publishing

## **Core XIX**

### **Corporate Restructuring & Business Valuation**

**Credit 4**

#### **Course Objectives**

- Understand the concepts and motives behind corporate restructuring.
- Learn about different forms of corporate restructuring, including mergers, acquisitions, divestitures, and reorganizations.
- Gain proficiency in financial statement analysis and interpretation.
- Develop skills in business valuation techniques and methodologies.
- Analyze the impact of corporate restructuring on shareholder value.
- Explore regulatory and legal considerations in corporate restructuring.
- Apply corporate restructuring and valuation principles to real-world business scenarios.
- Communicate valuation analyses and restructuring strategies effectively.

#### **Course Outcomes**

After completion of the course, learners will be able to:

- Understanding of Corporate Restructuring
- Proficiency in Financial Statement Analysis
- Competence in Business Valuation
- Analysis of Restructuring Impact on Shareholder Value
- Understanding of Regulatory and Legal Considerations
- Application of Valuation and Restructuring Principles
- Critical Thinking and Problem-Solving Abilities
- Effective Communication of Valuation Analyses

#### **Unit I: Introduction to Corporate Restructuring**

Definition and motives behind corporate restructuring, Types of corporate restructuring: mergers, acquisitions, divestitures, spin-offs, reorganizations. Financial Statement Analysis; Overview of financial statements: balance sheet, income statement, cash flow statement, Ratio analysis: liquidity ratios, profitability ratios, leverage ratios, Common-size analysis and trend analysis

#### **Unit II: Business Valuation Methods**

Introduction to business valuation: intrinsic value vs. market value, Valuation approaches: asset-based, income-based, market-based, Discounted cash flow (DCF) analysis, comparable company analysis (CCA), precedent transactions analysis (PTA). Valuation of Mergers and Acquisitions; Methods of valuing mergers and acquisitions, Synergy analysis and valuation adjustments, Valuation considerations in merger negotiations. Valuation of Divestitures and Spin-offs; Valuation considerations in divestiture transactions, Spin-off valuation techniques and analysis, Financial modeling for spin-off transactions.

#### **Unit III: Regulatory and Legal Aspects of Corporate Restructuring**

Regulatory frameworks governing corporate restructuring, Legal considerations in mergers, acquisitions, and divestitures, Compliance with antitrust laws and securities regulations

#### **Unit IV: Impact of Corporate Restructuring on Shareholder Value**

Assessing the impact of restructuring on shareholder wealth, Market reaction to restructuring announcements, Long-term implications of corporate restructuring on firm performance, Real-world case studies of corporate restructuring transactions



**International Business Environment****Course Objectives**

- Understand the concepts and theories of international business and globalization.
- Analyze the economic, political, legal, and cultural dimensions of the international business environment.
- Learn about international trade policies, trade agreements, and trade barriers.
- Explore foreign market entry strategies and modes of international expansion.
- Gain insights into managing cultural diversity and ethical challenges in international business.
- Understand the role of technology and innovation in shaping the global business landscape.
- Analyze international business risks and develop risk management strategies.

**Course Outcomes**

After completion of the course, learners will be able to:

- Understanding of International Business Concepts.
- Analysis of Economic Environment.
- Assessment of Political and Legal Risks.
- Management of Cultural Diversity.
- Evaluation of Trade Policies and Agreements.
- Development of Foreign Market Entry Strategies.
- Integration of Technology and Innovation.

**Unit-1: Introduction to International Business**

Definition and scope of international business, Theories of international trade and investment, Drivers of globalization and its impact on businesses. Economic Environment of International Business; Global economic systems: capitalism, socialism, mixed economies, Economic indicators and measures: GDP, GNP, inflation, exchange rates, International financial institutions and their role in global finance

**Unit-2: Political, Legal and Cultural Environment of International Business**

Political systems and ideologies: democracy, authoritarianism, communism, Legal frameworks governing international business: international law, trade regulations, intellectual property rights, Political risk assessment and management strategies, Dimensions of culture: Hofstede's cultural dimensions theory, Cultural differences and their impact on business practices, Managing cultural diversity and fostering cross-cultural communication

**Unit-3: International Trade Policies and Agreements**

Trade theories: comparative advantage, absolute advantage, factor endowment theory, Trade policies: tariffs, quotas, subsidies, Regional trade agreements and their impact on international business. Foreign Market Entry Strategies; Modes of international market entry: exporting, licensing, franchising, joint ventures, acquisitions, greenfield investments, Factors influencing the choice of entry mode, Entry strategies for emerging markets vs. developed markets

**Unit-4: Technology and Innovation in International Business**

Role of technology in facilitating international business operations, Impact of innovation on global competitiveness, Digital transformation and its implications for international business. Managing International Business Risks; Types of international business risks: political risk, financial risk, operational risk, Risk assessment techniques and tools, Risk management strategies and contingency planning

## Core XXI

### **Sustainable Development and Corporate Social Responsibility**

#### **Course Objectives**

- Understand the concepts of sustainable development, corporate social responsibility, and business ethics.
- Explore the relationship between business operations and environmental, social, and governance (ESG) issues.
- Learn about sustainability frameworks, standards, and reporting guidelines.
- Analyze the role of stakeholders in sustainability and CSR initiatives.
- Examine strategies for integrating sustainability and CSR into corporate strategies and operations.
- Assess the impact of sustainability and CSR practices on business performance and stakeholder value.
- Develop skills in sustainability reporting and communication

#### **Course Outcomes**

After completion of the course, learners will be able to:

- Understanding of Sustainable Development and CSR.
- Analysis of Environmental and Social Impacts.
- Knowledge of Sustainability Frameworks and Reporting
- Stakeholder Engagement and Governance.
- Integration of Sustainability into Business Strategy.
- Assessment of CSR Performance and Impact.
- Communication and Reporting Skills.
- Application of Sustainability Principles.

#### **Unit-1: Introduction to Sustainable Development and CSR**

Definitions and concepts of sustainable development and CSR, Historical evolution and significance of sustainability and CSR in business, **Environmental Sustainability and Business Operations**; Environmental challenges and impacts of business operations, Sustainable business practices: energy efficiency, waste reduction, resource conservation

#### **Unit-2: Social Responsibility and Stakeholder Engagement**

Social issues in business: labor practices, human rights, community development, Stakeholder theory and stakeholder engagement strategies. Governance, Ethics, and Corporate Citizenship; Corporate governance principles and practices, Business ethics and ethical decision-making, Role of corporations in global citizenship and community development.

#### **Unit-3: Sustainability Reporting and Standards**

Sustainability reporting frameworks: Global Reporting Initiative (GRI), Sustainability Accounting Standards Board (SASB), Integrated reporting and triple bottom line accounting, Assurance and verification of sustainability reports. Sustainable Supply Chain Management; Principles of sustainable supply chain management, Supplier engagement and responsible sourcing practices, Supply chain transparency and traceability

#### **Unit-4: CSR Strategy and Implementation**

Developing a CSR strategy: goal-setting, implementation, evaluation, CSR integration into corporate culture and operations, Measuring and evaluating CSR performance and impact. Case studies of companies implementing sustainability and CSR initiatives, Best practices in sustainable development and corporate social responsibility.

**Core XII**  
**Fundamentals of Commodity Markets**

**Course Objectives**

- Understand the Basics of Commodity Markets.
- Learn about Different Types of Commodities.
- Examine Supply and Demand Dynamics.
- Understand Price Determination Mechanisms.
- Explore Risk Management Strategies.
- Study Trading and Hedging Techniques.
- Examine Regulatory Frameworks.

**After completion of the course, learners will be able to:**

- Foundational Knowledge of Commodity Markets.
- Familiarity with Various Types of Commodities.
- Understanding of Supply and Demand Dynamics.
- Proficiency in Price Determination Mechanisms.
- Skills in Risk Management.
- Competence in Trading and Hedging.
- Awareness of Regulatory Requirements

**Unit-1: Introduction to Commodity Markets**

Definition of commodities, Historical evolution of commodity trading, Importance of commodities in the global economy. Types of Commodities; Classification of commodities (agricultural, energy, metals, etc.), Characteristics of different commodity types, Major commodity exchanges worldwide.

**Unit-2: Participants in Commodity Markets**

Overview of market participants (producers, consumers, traders, speculators, hedgers, etc.), Role of intermediaries (brokers, exchanges, clearinghouses, etc.), Importance of market liquidity. Supply and Demand Dynamics; Factors affecting commodity supply and demand, Seasonality and cyclical trends in commodity markets, Impact of geopolitical events and weather patterns. Commodity Pricing Mechanisms; Spot market vs. futures market, Basics of commodity futures contracts, Price discovery process.

**Unit-3: Risk Management in Commodity Markets**

Overview of price risk, credit risk, and operational risk, Introduction to hedging strategies, Risk management tools (futures, options, swaps, etc.). Fundamental analysis: Supply-demand fundamentals, production forecasts, consumption trends, Technical analysis: Chart patterns, trend analysis, technical indicators, Sentiment analysis: Market sentiment, news impact on prices

**Unit-4: Trading Strategies and Regulatory Environment**

Overview of trading strategies (trend following, mean reversion, spread trading, etc.), Back-testing and performance evaluation, Risk-reward considerations, Overview of regulatory bodies and frameworks governing commodity markets, Compliance requirements for market participants, Market manipulation and insider trading.

## XXIII

### **Social Entrepreneurship and Incubation**

#### **Course Objectives**

- Understand Social Entrepreneurship.
- Explore Social Innovation.
- Learn about Incubation Ecosystems.
- Develop Entrepreneurial Mindset.
- Identify Social Impact Opportunities.
- Understand Funding and Financing.
- Gain Skills in Business Planning and Management.
- Promote Ethical Leadership and Governance.

#### **Course Outcomes**

After completion of the course, learners will be able to:

- Comprehensive Understanding of Social Entrepreneurship.
- Ability to Innovate for Social Impact.
- Familiarity with Incubation Ecosystems.
- Entrepreneurial Mindset Development.
- Identification of Social Impact Opportunities.
- Knowledge of Funding and Financing Options.
- Skills in Business Planning and Management.
- Emphasis on Ethical Leadership and Governance.

#### **Unit-1: Introduction to Social Entrepreneurship**

Definition and characteristics of social entrepreneurship, Historical overview and contemporary examples of social enterprises. Social Impact Assessment; Methods for measuring social impact, Theory of change and logic models, Impact assessment frameworks and tools

#### **Unit-2: Business Model Design for Social Enterprises**

Adapting traditional business models for social impact, Revenue models for sustainability, Balancing financial and social objectives. Social Innovation and Ideation; Techniques for identifying social problems and needs, Ideation and brainstorming for innovative solutions, Human-centered design and prototyping

#### **Unit-3: Incubation and Acceleration of Social Ventures**

The role of incubators and accelerators in supporting social entrepreneurs, Accessing resources: funding, mentorship, and networks, Developing a social enterprise toolkit: business planning, marketing, and legal considerations. Scaling Social Ventures; Strategies for scaling impact while maintaining mission integrity, Partnerships and collaborations for scale, Challenges and opportunities in scaling social enterprises

#### **Unit-4: Ethics and Values in Social Entrepreneurship**

Ethical dilemmas and decision-making in social entrepreneurship, Stakeholder engagement and community empowerment, Building a culture of transparency and accountability.