

An Apprenticeship Embedded Degree Program (AEDP) Course Curriculum

For

Bachelor of Commerce (B. Com) in E-Commerce Operations

**(Apprenticeship Based Degree Under Graduate Programme)
(Faculty of Commerce)**

Semester I, II (2025-26)

Semester III, IV (2026-27)

Semester V, VI (2027-28)



**MAHARAJA GANGA SINGH UNIVERSITY
BIKANER, RAJASTHAN**

The Programme

Apprenticeship-based UG Degree Programme in Logistics is offered by Logistics Sector Skill Council (LSC) in collaboration with Higher Education Institutions that are duly approved by the concerned authorities.

Logistics Sector Skill Council, established by the Ministry of Skill Development and Entrepreneurship (MSDE) through the National Skill Development Corporation of India (NSDC), has taken up several initiatives to create adequate skills for gainful employment at various levels in Logistics Industry. The apprenticeship - based UG Degree Programme in Logistics is one of the programmes.

The Collaborating Institution may choose either B.Com. or BBA or BMS as the nomenclature for this UG Degree Programme. LSC takes up the following responsibilities so far as BBA/BMS/B.Com. Degree is concerned.

- Curriculum Development and Continuous Improvement
- Sensitization of Students on Apprenticeship Assignment
- Create Course Materials on all Domain Courses and provide access to students through Logistics Learning Management System
- Securing Apprenticeship Training (On-the-job Training) in Logistics Companies for all students of this Programme under the provisions of Apprentices Act, 1961
- Securing a monthly stipend, as fixed by the Government from time to time, during the Apprenticeship Training period for every student.
- Assessing the performance & learning of students in Apprenticeship
- Arrange the conduct of final placement drive for the students of this Programme
- Assessment of the progress made by the Collaborating Institutions (CI) in the Programme, and offering suggestions & help achieve the objective of making the students skillful.

The Regulation and Curriculum given below shall be duly approved by the various academic bodies of the HEI/University and apply to all candidates admitted to the Programme.

1. Eligibility for Admission

Candidates for admission to this Apprenticeship-based UG Degree Programme should have passed 10+2 in any Board or possess an equivalent qualification. Any subject group in 10+2 is acceptable.

2. Admission

The Collaborating Institutions shall decide the minimum mark percentage for admission. The Reservation Policy of the State where the HEI is functioning is applicable.

3. Programme Duration

The Programme extends for three years consisting of Four teaching semesters and two apprenticeship semesters.

4. Programme Content

- 12 Domain Courses in Semesters I, II, III, and IV
- 2 Allied Courses in the MOOC format in Semesters V and VI
- 2 Spells of Apprenticeship Training for six months each in Semesters V and VI

5. Standard of Passing & Award Division

Standard of Passing & Award Divisions shall be as per the Collaborating Institution's policies that offer this Programme.

6. Continuous Internal Assessment

The Continuous Internal Assessment System, including the assessment components, periodicity, and proportionate weight in the total score for a particular course, is as per the policies and practices of the Collaborating Institution.

7. Attendance

The mandatory minimum attendance in teaching Semesters is as per the existing policies and practices of the Collaborating Institution.

Attendance requirement during Apprenticeship Training is as per the conditions/norms of the Apprenticeship Contract, Apprentices Act 1961, and National Apprenticeship Promotion Scheme.

8. Examination

The End Semester Examination for courses scheduled in teaching Semesters will be conducted and results declared by the Collaborating Institution. The question paper pattern for these examinations is as per the format decided by the Collaborating Institution.

9. Miscellaneous

- Each student shall possess Aadhaar Card, PAN, and Bank Account, which are necessary for onboarding for Apprenticeship.
- Students shall be willing to move out of their present place of residence to get onboarded in companies that might be located in different cities.
- Students shall take care of Boarding and Lodging arrangements in cities where the apprenticeship providing company is located.
- Students need to possess the prescribed textbooks for all Courses of the Programme.
- The Collaborating Institution will award the Degree to students who successfully complete the Programme.

10. Fee Payment

The Programme Fee and Examination Fee are payable by students to the Collaborating Institution as per its norms.

Assessment System

The Assessment System of the apprenticeship-based Degree Programmes developed and offered by the Logistics Sector Skill Council (LSC) is designed to objectively assess the Knowledge, Skills, and Attitude of students. To ensure that the Assessment System is both foolproof and inclusive, appropriate representation is provided to the Industry, the Sector Skill Council, and the Collaborating Institution in the student evaluation process. This ensures that the Assessment System accurately measures the industry-readiness of students.

Teaching Semesters

Semesters I, II, III, and IV are Teaching Semesters. All courses scheduled during these semesters are assessed by the Collaborating Institution. The Assessment System (including the proportion of marks between Continuous Internal Assessment (CIA) and the End Semester Examination (ESE), as well as the Question Paper Pattern) will follow the norms, standards, and practices of the Collaborating Institution, notwithstanding the specific regulations provided in the Curriculum Booklet issued by LSC.

Apprenticeship Semesters

Semesters V and VI are Apprenticeship Semesters.

B. Com in E-Commerce
Curriculum Structure (Academic Year 2025-26)

I Semester										
Paper Code	Paper Name	Code	L	T	P	Total Credits	Maximum Marks		Total Marks	Minimum Passing Marks (%)
							Internal Marks	External Marks		
BCE4.5AECT11	Environment Studies	AEC	2	0	0	2	-	50	50	36
BCE 4.5DCCT12	Inventory Management	DCC	6	0	0	6	30	120	150	36
BCE 4.5DCCT13	Introduction to E-Commerce and Logistics Operations	DCC	6	0	0	6	30	120	150	36
BCE 4.5DCCT14	Outsourcing in E-Commerce	DCC	6	0	0	6	30	120	150	36
Total Credits: 20										
Total Marks: 500										

II Semester										
Paper Code	Paper Name	Code	L	T	P	Total Credits	Maximum Marks		Total Marks	Minimum Passing Marks (%)
							Internal Marks	External Marks		
BCE4.5AECT21	General English or Hindi	AEC	2	0	0	2	-	50	50	36
BCE 4.5DCCT22	Warehouse Management	DCC	6	0	0	6	30	120	150	36
BCE 4.5DCCT23	Material Handling	DCC	6	0	0	6	30	120	150	36
BCE 4.5DCCT24	First and last Mile Operations	DCC	6	0	0	6	30	120	150	36
Total Credits: 20										
Total Marks: 500										

III Semester										
Paper Code	Paper Name	Code	L	T	P	Total Credits	Maximum Marks		Total Marks	Minimum Passing Marks (%)
							Internal Marks	External Marks		
BCE5AECT31	Elementary Computer	SDC	2	0	0	2	-	50	50	36
BCE5DCCT32	MIS for E-Commerce	DCC	6	0	0	6	30	120	150	36
BCE5DCCT33	E-Commerce customer service	DCC	6	0	0	6	30	120	150	36
BCE5DCCT34	Reverse Logistics for E-Commerce	DCC	6	0	0	6	30	120	150	36
Total Credits: 20										
Total Marks: 500										

IV Semester										
Paper Code	Paper Name	Code	L	T	P	Total Credits	Maximum Marks		Total Marks	Minimum Passing Marks (%)
							Internal Marks	External Marks		
BCE5AECT41	Indian Knowledge System	VAC	2	0	0	2	50	0	50	36
BCE5DCCT42	Hub & Line Operations	DCC	6	0	0	6	30	120	150	36
BCE5DCCT43	Fulfilment Operations	DCC	6	0	0	6	30	120	150	36
BCE5DCCT44	Packaging for E-Commerce	DCC	6	0	0	6	30	120	150	36
Total Credits: 20										Total Marks: 500

V Semester										
Paper Code	Paper Name	Code	L	T	P	Total Credits	Maximum Marks		Total Marks	Minimum Passing Marks (%)
							Internal Marks	External Marks		
BCE5.5AECT51	Communication Skills	SDC	2	0	0	2	50	0	50	36
BCE5.5DCCT52	Apprenticeship	OJT	0	2	32	18	30*	120**	150	36
Total Credits: 20										Total Marks: 500

*Skill test to be conducted by the College

**Apprenticeship Assessment conducted by College, Industry and RASCI

VI Semester										
Paper Code	Paper Name	Code	L	T	P	Total Credits	Maximum Marks		Total Marks	Minimum Passing Marks (%)
							Internal Marks	External Marks		
BCE5.5AECT61	Dissertation Project Report	SDC	0	2	0	2	50	0	50	36
BCE5.5DCCT62	Apprenticeship	OJT	0	2	32	18	30*	120**	150	36
Total Credits: 20										Total Marks: 500

*Skill test to be conducted by the College

**Apprenticeship Assessment conducted by College, Industry and RASCI

SEMESTER -I

BCE4.5AECT11 Environment Studies

Common Curriculum for all Under Graduate Students

BCE4.5DCCT12 INVENTORY MANAGEMENT

COURSE OBJECTIVES:

- To understand the concepts of inventory management.

LEARNING OUTCOMES:

The students will be able to:

- Understand basics of inventory management in warehousing.
- Compare various inventory management techniques.
- Explain the requirement for warehouse management systems.
- Demonstrate the importance of and inventory management.

Unit	Topics
I	<p>Introduction to Inventory Management</p> <p>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.</p>
II	<p>Basic Inventory Management Techniques and Relevance to E-Commerce Logistics</p> <p>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.</p>
III	<p>Key Inventory Management Metrics</p> <p>Inventory turnover -Safety stock -Reorder point -Backorder rate-Carrying cost of inventory</p>
IV	<p>Inventory Management Software</p> <p>What is inventory management software? - Features of good quality software. -Choosing the correct warehousing management system.</p>
V	<p>Latest Trends in Inventory Management</p> <p>Predictive picking using artificial Features of good quality software-Choosing the correct warehousing management system-Omnichannel inventory management solutions-Streamlined management of returned inventory -Streaming Analytics-Advanced sales forecasting-New inventory management skills.</p>

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, Ane books 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, 6th Edition, 1993.

BCE4.5DCCT13 INTRODUCTION TO E-COMMERCE AND LOGISTIC OPERATIONS

COURSE OBJECTIVES:

- To understand the basics of e-commerce logistics

LEARNING OUTCOMES:

The students will learn:

- Basics of e-commerce logistics.
- Types of e-commerce logistics in India.
- Impact of technology on e-commerce logistics.
- Future of e-commerce logistics in India.

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:

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

BCE4.5DCCT14 OUTSOURCING IN E-COMMERCE

COURSE OBJECTIVES:

- To understand the role of Outsourcing in E-Commerce

LEARNING OUTCOME:

The students will be able to:

- Understand how outsourcing works in E-Commerce
- Understand how to outsource strategic assessments
- Understand how to outsource Risk Management
- Future of E-Commerce Outsourcing

Unit	Topics
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

SEMESTER -II

BCE4.5AECT21 General English or Hindi

Common Curriculum for all Under Graduate Students

BCE4.5DCCT22 WAREHOUSE MANAGEMENT

COURSE OBJECTIVES:

- To develop competencies and knowledge of students to become Warehouse professionals
- To orient students in the field of Logistics
- To help Students to understand Warehousing and distribution centre operations

LEARNING OUTCOMES:

- Students will be able to apply the Basic knowledge of Warehousing and distribution centre operations in the real-life situation
- This subject will enable them to enhance their ability and professional skills.

Unit	Topics
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.

BCE4.5DCCT23 MATERIAL HANDLING

COURSE OBJECTIVES:

- To develop competencies and knowledge of students to become effective professionals
- To orient students on recent changes and development in the field of material management
- To help Students to understand basic Principles and concept of material Management

LEARNING OUTCOMES:

- Students will be able to apply the knowledge about material management in the real-life business situation
- This subject will enable them to enhance their managerial ability and professional skills

Unit	Topics
I	<p>Introduction:</p> <p>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.</p>
II	<p>Types of Material Handling Equipment</p> <p>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.</p>
III	<p>Material Requirement Planning (MRP)</p> <p>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).</p> <p>Design of Material Handling Systems</p> <p>The Unit Load Concept-In-Process Handling-Distribution.</p>
IV	<p>Quality control of material</p> <p>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.</p>
V	<p>Health and Safety</p> <p>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.</p>

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

BCE4.5SCCT24 FIRST AND LAST MILE OPERATIONS

COURSE OBJECTIVES:

- To understand the First Mile operational processes in E-commerce logistics.

LEARNING OUTCOMES:

THE STUDENTS WILL LEARN:

- Basics of First Mile operations.
- Shipment pickup operations.
- Different types of shipment processing operations at Processing Centers.
- Layout of a Processing Centre.
- Key challenges in First Mile operations and First Mile metrics.

Unit	Topics
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 optimization 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:

- Course Material Prepared by LSC

SEMESTER -III

BCE5AECT31 Elementary Computer

Common Curriculum for all Under Graduate Students

BCE5DCCT32 MIS FOR E-COMMERCE

COURSE OBJECTIVES:

- To understand the concepts of Managing information systems

LEARNING OUTCOMES:

The students will be able to:

- Understand the basics of management information systems
- Understand various global E-business processes.
- Explain the concept of electronic commerce.
- Explain the relationship between decision making and Information systems

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

BCE5DCCT33 E-COMMERCE CUSTOMER SERVICE

COURSE OBJECTIVES:

- To understand the concept of customer service in E-Commerce

LEARNING OUTCOME:

The students will be able to:

- Understand how to create customer centric organization
- Understand how to communicate effectively with customers
- Explain the strategies used in servicing customers
- Understand customer encounters and tools used in customer service.

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

Text & Reference Books:

1. Course Material Prepared by LSC

BCE5DCCT34 REVERSE LOGISTICS FOR E-COMMERCE

COURSE OBJECTIVES:

- To understand the role of Reverse Logistics in E-Commerce

LEARNING OUTCOME:

The students will be able to:

- Understand the basics concepts of reverse logistics in E-Commerce
- Understand the process involved in reverse logistics.
- Explain the prospects and systems used in reverse logistics
- Understand value creation using reverse logistics.

Unit	Topics
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: Gatekeeping, 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:

1. Course Material Prepared by LSC

SEMESTER -IV
BCE5AECT41 Indian Knowledge System
Common Curriculum for all Under Graduate Students

BCE5DCCT42 HUB & LINE OPERATIONS

COURSE OBJECTIVES:

- To understand the concepts of Hub & Line Operations

LEARNING OUTCOME:

- Understand the basics of Hub and line operations in Ecommerce
- Understand inbound and outbound logistics
- Explain in detail all the machines and equipment used in hub operations.
- Explain the prospects of line haul logistics

Unit	Topics
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

BCE5DCCT43 FULFILMENT OPERATIONS

COURSE OBJECTIVES:

- To understand the role of Fulfilment operations in E-Commerce

LEARNING OUTCOMES:

The students will be able to:

- Understand the basics concepts of fulfilment operations in E-Commerce
- Understand the various operational models in fulfilment
- Explain the relationship between logistics and fulfilment services
- Understand the role of technology in fulfilment

Unit	Topics
I	Introduction to fulfilment operations 1.1 What is Fulfilment? 1.2 Understanding ECommerce Fulfilment 1.3 Logistics Organization Forms in E-Commerce 1.4 Characteristics of Fulfilment Service
II	Fulfilment Models 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
III	Logistics and Fulfilment Services 3.1 Key Drivers 3.2 Warehousing Aspects 3.3 Freight Transit 3.4 Packaging
IV	Technology in fulfilment 4.1 Fulfilment Processes & platforms 4.2 E-Fulfilment and Customer retention strategies
V	Prospectus in Fulfilment 5.1 Fulfilment of Bundled Orders using technology 5.2 Mini Fulfilment via tech

Text & Reference Books:

1. Course Material Prepared by LSC

BCE5DCCT44 PACKAGING FOR E-COMMERCE

COURSE OBJECTIVES:

- To understand the concept of packaging E-Commerce

COURSE OUTCOME

The students will be able to:

- Understand the concept of packaging in E-Commerce
- Understand the types and functions of packaging
- Understand the concept of brand equity
- Explain the packaging journey.

Unit	Topics
I	Introduction to packaging 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	Types and Functions of Packaging 2.1 Types of Packaging 2.2 Packaging Materials 2.3 The Functions of Packaging
III	Understanding the Brand 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	The Concept of Brand Equity 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	The Packaging Journey in E-Commerce 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:

- Course Material Prepared by LSC

SEMESTER -V

BCE5.5AECT51 Communication Skills

Common Curriculum for all Under Graduate Students

BCE5.5DCCT52 APPRENTI

SEMESTER -VI

BCE5.5AECT61 Dissertation Project Report

Common Curriculum for all Under Graduate Students

BCE5.5DCCT62 APPRENTICESHIP

PRINCIPLES OF CATALOGUING

COURSE OBJECTIVES:

- To understand the concept of Cataloguing in E-Commerce

LEARNING OUTCOMES:

The students will be able to:

- Understand the principles of Cataloguing
- Understand rules and authorities in Cataloguing
- Explain the technology infrastructure required for Cataloguing
- Understand different compliances in Cataloguing

Unit	Topics
I	Principles of Cataloguing 1.1 Different principles used in cataloguing 1.2 International Cataloguing Principles 1.3 Skills used in cataloguing 1.4 Building a Catalog Team 1.5 Strategies used in cataloguing
II	Rules and Authorities 2.1 Rules and Authorities 2.1 Regulatory authority and guidelines for cataloguing 2.2 Responsibilities of cataloguing authority 2.3 Rules for product cataloguing 2.4 Rules for Price Cataloguing 2.5 Interdepartmental Communication regarding cataloguing
III	Information Technology Infrastructure 3.1 Role of information analysis 3.2 Hardware and Software 3.3 Information Technology Security
IV	MIS in Cataloguing 4.1 Databases and Storage 4.2 Shelf life of product data 4.3 Expiry of data
V	Compliances in Cataloguing 5.1 Digital Repository 5.2 Cataloguing digital content as per job roles 5.3 Cataloguing digital content as per business verticals 5.4 Content Management system
	<p style="color: blue;">Text & Reference Books:</p> <p>1. Course Material Prepared by LSC</p>

EXPORT AND IMPORT DOCUMENTATION

COURSE OBJECTIVES:

- To familiarize the student with the basic concept of formalities for export trade, and the documentation process required for import and export.

LEARNING OUTCOMES:

- Recognize the impact of information and communication technologies, especially of the internet in business operations.
- Recognize the fundamental principles of eBusiness and eCommerce.
- Explain the security protocols and the issues in internet security.

Unit	Topics
I	Introduction to Export and Import 12 Hrs Basics of Exports - Classification of goods - Preparation for Exports - Methods of Exporting - Export Marketing Organizations - Functions - Registration formalities IEC Number - Procedure of obtaining IEC Number - RCMC (Registration Cum Membership Certificate) –Export Credit Guarantee Council (ECGC) - Application for import and export of restricted items.
II	Documentation Framework and Contracts 15 Hrs Aligned Documentation System: Commercial Documents - Auxiliary Commercial Documents - Regulatory Documents - Documents related to goods - Documents related to Shipment - Documents related to Payments - Documents related to Inspection - Documents related to Excisable Goods - Types of Contracts - Export Contracts.
III	Payments and Finance 15 Hrs Factors - Methods of receiving Payment - Instruments of Payments-Letter of Credit Pre-shipment Finance - Post-shipment Finance - Post-shipment Credit in Foreign Currency - Negotiation of documents with bank - CENVAT - Duty Draw back
IV	Quality Control and Clearance of Cargo 15Hrs Objective of Quality Control - Methods - Procedure for Pre-shipment Inspection - Role of Clearing and Forwarding Agents – Role of Inspection Agents-Clearance of Cargo Central Excise Clearance Procedure - Central Excise Clearance Option - Shipment of Export Cargo.
V	Customs Clearance, Risk and Insurance Policy 15 Hrs Customs Clearance of Export Cargo - Customs Clearance of Import Cargo - Risk: Types - Types of cover issued by ECGC - Cargo Insurance. Processing of an export order - Major laws governing export contract.

Text & Reference Books:

- RAMA, GOPAL C. (2008) Export Import Procedures Documentation and Logistics. New Age International Publishers: New Delhi.
- KHUSHPAT, S. J. (2013) Export Import Procedures and Documentation. Himalaya Publishing House: New Delhi.
- PAWAN, KUMAR (2001) Export of India's Major Products Problems and Prospects. New Century Publications: New Delhi.
- KAPOOR, D. C. (2002) Export Management. Vikas Publications: New Delhi.
- CHERUNILAM, F. (2004) International Trade and Export Management. Himalaya Publications: New Delhi.

Websites:

- www.cbec.gov.in/customs/cs-act/cs-act-idx.htm (Central Board of Excise and Customs - Customs Act, 1962, Customs Tariff Act – 1975, Other Acts)
- www.epckeny.org/ (Export Promotion Council)
- commerce.nic.in/MOC/index.asp (Ministry of Commerce and Industry)
- www.dgft.gov.in/ (Directorate General of Foreign Trade)

APPRENTICESHIP I

The students would be onboarded in Logistics Processes of companies by the Logistics Sector Skill Council for Apprenticeship Training. The duration of Apprenticeship Training is 6 months. During Apprenticeship Training students would be assigned on-the-job-training by companies. Being a legal engagement, students would receive a monthly stipend during Apprenticeship Training as per the existing norms.

On completion of the Apprenticeship Training, students shall submit Apprenticeship Report in the form of Work Diary to the Collaborating Institutions. The Report would be evaluated and Viva conducted by the Collaborating Institution.

INTERNATIONAL E COMMERCE

COURSE OBJECTIVES:

- To understand the aspects of International E Commerce

LEARNING OUTCOME:

The students will be able to:

- Understand the Importance of international E-Commerce
- Understand Cross border E-commerce in detail
- Explain the import and export procedures in India
- Understand the cross-border markets, regulations.
- Understand the future of cross-border In India.

Unit	Topics
I	Introduction:
	1.1 What is International Ecommerce?
	1.2 Importance of International Ecommerce
	1.3 Advantages of International Ecommerce
	1.4 Challenges of International Ecommerce
	1.5 What are the risks of International Ecommerce?
II	Cross Border Ecommerce
	2.1 Why Online Sellers Should Expand Internationally?
	2.2 When is a company ready to sell abroad?
	2.3 How should a company determine market entry strategy?
	2.4 How to identify market opportunities and create a sell forecast?
III	Export and Import in India
	3.1 Export and Import procedure
	▶ Commercial Invoice
	▶ Air Waybills
	▶ Bill of Lading
	▶ Bill of Exchange
	▶ Certificate of Origin
	▶ Packing List
	▶ Letter of Credit
	3.2 Steps Involved in the Processing of an Export Order
	3.3 Import taxes and duty
IV	Cross-border markets and common governance
	4.1 Benefits of cross border markets
	4.2 International legislation in Ecommerce
	4.3 International Ecommerce strategy
	4.4 Impact of Ecommerce on international trade
V	Future of Cross Border Ecommerce
	5.1 Emerging Trends in Cross Border E-commerce that Define the Future of Retail
	5.2 Why Is Cross-Border E-Commerce the Future Of E-Commerce Industry?
	5.3 Why Cross-Border E-Commerce Will Be Crucial to the Future of Manufacturing

Text & Reference Books:

1. Course Material Prepared by LSC

MULTI-MODAL TRANSPORTATION

COURSE OBJECTIVES:

- Introduce Multi-modal and Intermodal Transport concepts.
- Explain Regulatory framework and policies for Multi-modal transportation.
- Describe Indian Railways' initiatives to promote Multimodal Logistics in India.
- Overview evolution of infrastructure facilitating Multi-modal Logistics in India.

LEARNING OUTCOMES:

After completing this Course, the student will have the following learnings:

- The importance and role played by Multi-modal transport in the efficient and cost-effective movement of cargo
- Types of multi-modal movement and the role of containerisation for security and speed
- The provisions and procedures for Exim trade and INCOTERMS
- Indian Government's policies and vision R for development of seamless multi-modal transport.

Unit	Topics
I	Transportation Systems & Multi modal Transport –Concept of Multi modal & Intermodal Transport – introduction to Multi modal transport, the difference between Multi modal and Intermodal transport-Type of transport Modes – detail and characteristics of air, road, rail, water, pipelines, package carriers-Need, Aim and Key Issues of Multi modal transport.
II	How to organise Multi modal transport-Role of Containerisation in MMT- history, utility, types, ease of handling, cost saving-Types of Multi modal transport – combined container transport, rolling Road & forwarding of trailers, RORO & LASH transportation-National Multi modal Transport Committee (NMTC) and Logistics Policy of India – key features and importance
III	Multi modal Transportation Act & Procedures-MMTG Act of 1993-Custom procedures for Export & Import - Bill Of Lading – Hague Rules, Visby Rules, Hamburg Rules, Voyage by Sea-INCOTERMS – meaning, explanation, list, and types
IV	MMT and Indian Railways-PFT Policy – maintenance of rolling stock, cargo handling, customs, etc-Warehousing Policy – stuffing, de-stuffing, stacking, use of MHE, etc-Layout and design of Multi modal Logistics parks
V	Multi modal transport & Practice Today-India's growing conflict between Trade & transport – issues, policy, problems & pricing-Integrated Transport – Bharatmala, Sagarmala, IWT, DFC, the concept of ICP (International Check Posts-Scenario in India and neighbouring countries with a case study.
TEXT BOOKS 1 Course Material Prepared by LSC	

The students would be onboarded in Logistics Processes of companies by the Logistics Sector Skill Council for Apprenticeship Training. The duration of Apprenticeship Training is 6 months. During Apprenticeship Training students would be assigned on-the-job-training by companies. Being a legal engagement, students would receive a monthly stipend during Apprenticeship Training as per the existing norms.

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