

**MAULANA ABUL KALAM AZAD UNIVERSITY OF TECHNOLOGY, WB**

(Formerly West Bengal University of Technology)  
**Syllabus for Bachelor in Supply Chain Management**  
**Effective from the Academic Year 2019-20**

**Semester-V**

**SUPPLY CHAIN PRACTICE & PROCEDURE (4 credits)**  
**BSCM-501**

**Unit: 1 Concept of supply chain, Integrated supply chain, Growth of Supply chain, Strategic decision in supply chain.**

**Unit: 2 Definition of Supply Chain Management, Scope, Supply Chain Management as a Management Philosophy, Function of SCM, Why Supply Chain Management, Value chain for Supply Chain Management.**

**Unit: 3 Customer focus in Supply Chain Management, Buyers Perspective, Suppliers Perspective, Stages of Development in Supplier Relations.**

**Unit: 4 Supply Chain Strategies – (i) Cycle View (ii) Push & Pull View. Achievement of strategic fit through different steps, Obstacles to achieving Strategic Fit. Optimization of supply chain techniques and operation: methods of cost reduction and operations optimization techniques.**

**Unit: 5 Role of Forecasting in a supply chain, Factors of Demand Forecast, Basic approach to Demand Forecasting, Role of Aggregate Planning in a Supply Chain, Problems, Planning Strategies.**

**Books:**

- 1. Supply Chain Management – Sunil Chopra & Peter Meindl, PHI**
- 2. Essentials of Supply Chain Management – Dr. R.P. Mohanty & Dr. S.G. Deshmukh, Jaico Publishing House**
- 3. Designing & Managing The Supply Chain**  
**David Simchi-Levi , Philip Kamiusky, Edith Simchi-Levi, TATA Mc-Graw Hill**

**FACILITIES MANAGEMENT (4 credits)**

**BSCM-502**

**Unit: 1 Concept of Materials Handling, Handling Objectives, Basic Consideration for Handling Equipment, Principles of Materials Handling.**

**Unit: 2 Materials Handling Equipment – Fork Lift Trucks, Pallet Trucks, Tow Tractor, Conveyors, Carousels. Automated & Semi Automated Handling Procedure.**

**Unit: 3 Definition of Packaging, Consumer Packaging, Industrial Packaging, Importance of Packaging, Function of Packaging.**

**Unit: 4 Packaging Materials- Traditional and Modern – Film based, Blanket Wrapping, Returnable containers, Intermediate Bulk Containers, Pallets Pools, Plastic Pallets, Refrigerated Pallets.**

**Unit: 5 Warehouse Functionality, Warehouse Operating Principles, Classification – (1) Private, (2) Public, (3) Contract Warehouse, Planning the distribution warehouse. Strategic warehousing and alternates to warehousing**

**Books:**

- 1. Logistical Management-The integrated Supply Chain Process –**  
**Donald. J. Bowersox & Donald. J. Claoss, TATA Mc-Graw Hill**
- 2. Essentials of Supply Chain Management – Dr. R.P. Mohanty & Dr. S.G. Deshmukh, Jaico Publishing House**

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**FREIGHT TRANSPORT SYSTEM (4 credits)**

**BSCM-503**

**Unit: 1 Economic Factors of Transportation, Pricing Strategy in Transportation, Rating Systems- Class Rates, Commodity Rates, Special Rate, Freight – All kind Rates.**

**Unit: 2 Transport Documentation – Bill of Lading, Freight Bill, Shipping Manifest. Responsibilities of Traffic Department, Legal Aspects.**

**Unit: 3 Transport Functionality- Product Movement, Product Storage, Participants in Transportation Decision – Shippers, Carriers, Government, Public.**

**Unit: 4 Modes of Transport – Rail, Water, Pipeline, Air, Motor Carriers.**

**Unit: 5 Transportation Formats – Common Carriers, Contact Carriers, Private Carriers, Exempt Carriers. Suppliers of Transportation Services – Single Mode Operator, Specialized Carrier, Intermodal Operator – Piggy Back, Containership, Freight Forwards, Shippers Association**

**Unit 6: Reverse Logistics: Concept, Methodology, application in different modes, Cold Chain Management.**

Books: 1. Logistical Management-The integrated Supply Chain Process – Donald. J. Bowersox & Donald. J. Claoss, TATA Mc-Graw Hill 2. Supply Chain Management – Sunil Chopra & Peter Meindl, PH

**INVENTORY and QUALITY MANAGEMENT (4 credits)**

**BSCM-504**

**Unit: 1 Definition, Importance, Function, Classification of Inventory, Inventory related Cost, Objectives of Inventory Control, Planning for Inventory Control, Types of Inventory Situations.**

**Unit: 2 Selective Inventory Control Model- ABC Analysis, VED, XYZ, FSN, SOS, GOLF, EOQ Model, P & Q System, Concept of JIT.**

**Unit: 3 Classification of W.I.P Inventories, Factors influencing, W.I.P inventory, Problems, Controlling Method.**

**Unit: 4 Definition of Quality, Quality Standard, Quality Control, Aspects of Quality Control, Quality Control of Purchased Materials in a Supply Chain.**

**Unit: 5 General Problems of Vendor Quality, Suppliers Quality Survey, Model for evaluation of Suppliers Quality. Supplier Selection; The Role of Sourcing in Supply Chain, Supplier scoring & assessment, Sourcing Planning & analysis , Making Sourcing decisions in Practice**

**Unit: 6 Management Action for Quality Assurance, Activities under Quality Assurance, Evaluating Product Quality, Control Chart – Mean & Range. Element of Quality Management, Benefits, Six Sigma Quality Control, Principles, Benefits, Steps of Six Sigma.**

**Books:** 1. Inventory Management – K. Shridhara Bhat, Himalaya Publishing House 2. Logistical Management-The integrated Supply Chain Process – Donald. J. Bowersox & Donald. J. Claoss, TATA Mc-Graw Hill 3. Inventory Management – L.C. Jhamb, Himalaya Publishing House  
4. Designing & Managing The Supply Chain – David Simchi-Levi, Philip Kaminsky, Edith Simchi Levi, Tata Mc Graw Hill  
5. Essentials of Supply Chain Management – Dr. R.P. Mohanty & Dr. S.G. Deshmukh, Jaico Publishing House 6. Production Management – L.C. Jhamb, EPH.

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**PHYSICAL DISTRIBUTION & LOGISTICS (4 credits)**

**BSCM-505**

**Unit: 1 Definition of logistics, Decision in Logistics Management, Key Factors for efficient Logistic System, Total Logistics Cost.**

**Unit: 2 Evolution of Logistics Management, Models in Logistics Management, Logistics Management to Supply Chain Management, Logistics Management Process, Competitive advantage through Logistics**

**Unit: 3 Impact of Logistics & Customer Services on Marketing, Service Driven Logistics System, Logistic Impact on Return Investment, Logistics and Share holder value.**

**Unit: 4 The work of Logistics – Network Design, Information, Transportation, Inventory, Warehousing, Materials Handling & Packaging.**

**Integrated Logistics – Logistics Performance Cycles – Physical Distribution, Manufacturing Support, Procurement Performance.**

**Unit: 5 Information Functionality and Principles of Logistics, Logistical Measurement Systems, Characteristics of an Ideal Measurement System, Logistics Value - engineering.**

**Books:**

G. Raghuram & N. Rangaraj, MACMILLAN. 2. Logistical Management – - Donald. J. Bowersox & David J. Closs., Tata Mc Graw Hill 3. Logistics & Supply Chain Management – Martin Christopher, Pearson