

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