

Rathinam College of Arts & Science (Autonomous), Coimbatore-21.

Regulations 2024 Admitted in BBA - Logistics from the academic year 2024-2025

DEPARTMENT OF MANAGEMENT UG

RATHINAM COLLEGE OF ARTS AND SCIENCE (AUTONOMOUS)

Rathinam Tech zone, Pollachi Road,

Eachanari, Coimbatore – 641021



Syllabus for

BBA Logistics

2024-2025 Batch on-wards

Vision and Mission of the Institution:

VISION

To emerge as a world-renowned Institution that is integrated with Industry to impart Knowledge, Skills, Research Culture and Values in youngsters who can accelerate the overall development of India.

MISSION

To provide quality education at affordable cost, build academic and research excellence, maintain ecofriendly and robust infrastructure, and to create a team of well qualified faculty who can build global competency and employability among the youth of India.

MOTTO

Transform the youth into National Asset.

Vision and Mission of the Department:

VISION

To establish the Management Department as a dynamic and continually evolving center of excellence, dedicated to providing students with a transformative learning experience. Our aim is to nurture global leaders who not only excel in business but also contribute significantly to the growth of society and the nation."

MISSION

Empower students to become agile, forward-thinking leaders who drive positive change in the business world, contribute to the betterment of society, and foster economic growth and prosperity on a national and global scale.

Program Educational Objectives (PEO)

PEO1:	Pursue a career as a globally competent and universally employable professional in core and related fields in diverse sectors who accelerates the overall development of India.
PEO2:	Pursue lifelong learning opportunities including graduate degrees to improve and expand domain specific and professional skills.
PEO3:	Advance personally and professionally by accepting professional and societal responsibilities, and pursuing leadership roles.

Mapping of Institute's Mission to PEO

Institute's Mission	PEO's
To provide quality education at affordable cost, build academic and research excellence maintain eco-friendly and robust infrastructure, and	PEO1, PEO2
To create a team of well qualified faculty who can build global competency and employability among the youth of India.	PEO2, PEO3

Mapping of Department Mission to PEO

Department Mission	PEO's
Imparting critical thinking	PEO 1, PEO 2
Enhancing research skills	PEO 1, PEO 2
Developing professionalism	PEO 2, PEO 3,
Viable technical knowledge and core competency	PEO 1. PEO 3

Program Outcomes (PO):

PO1 : Demonstrate knowledge competency in core discipline
PO2 : Apply the appropriate knowledge and suitable skills in solving the complex problems
PO3 : Conduct investigations of complex problems through various scientific approaches
PO4 : Design solutions for complex and open ended real-life or real-time problems
PO5 : Use appropriate and advanced tools for wide range of practices with an understanding on its associated limitations
PO6 : Work effectively and responsibly as a member or a leader in a team
PO7 : Express complex concepts within the profession and with society at large
PO8 : Understand the professional roles and responsibilities
PO9 : Analyze social and environmental aspects of the professional practices
PO10 : Practice higher moral and ethical standards during the discharge of professional duties
PO11 : Incorporate finer finance and business practices in all professional engagements
PO12 : Identify and address their professional development through lifelong learning

Program Specific Outcomes (PSO)

PSO 1 : Understand the dynamic and complex working environment of ever-changing Logistics and Supply Chain Management.
PSO 2 : Applying conceptual and analytical abilities required for effective decision making in crisis situation.
PSO 3 : Understand the problems faced by the Logistics and Supply Chain business sector in the rapidly changing current environment.

Correlation between the PO/PSO and the PEOs

Program Outcomes		PEO 1	PEO 2	PEO 3
PO 1	:	3	1	3
PO 2	:	3	2	3
PO 3	:	1	2	3

PO 4	:	3	1	3
PO 5	:	3	3	2
PO 6	:	2	3	3
PO 7	:	2	3	1
PO 8	:	3	2	1
PO 9	:	2	2	3
PO 10	:	3	2	1
PO 11	:	2	1	1
PO 12	:	3	2	2
PSO 1	:	2	3	1
PSO 2	:	3	2	2
PSO 3	:	2	3	3

3 – Strong correlation; 2-moderate correlation; 1-Less correlation; Blank-no correlation

Components considered for Course Delivery is listed below:

- a. Class room Lecture
- b. Laboratory class and demo
- c. Assignments
- d. Mini Project
- e. Project
- f. Online Course
- g. External Participation
- h. Seminar
- i. Internship

Mapping of POs with Course Delivery:

Program Outcome	Course Delivery								
	a	b	c	D	E	F	G	h	i
PO1	3	3	1	1	2	1	3	3	1
PO2	3	3	2	3	3	1	1	2	3
PO3	3	3	1	3	1	1	1	2	3
PO4	2	3	2	3	3	1	1	3	1
PO5	3	2	1	3	1	3	3	3	3
PO6	2	3	1	3	3	1	2	3	3
PO7	2	3	1	3	1	1	2	3	3
PO8	2	2	1	2	3	3	2	3	3
PO9	1	1	2	3	3	3	2	3	3
PO10	2	1	2	3	2	2	2	2	2
PO11	1	1	2	2	2	3	3	3	3
PO12	1	2	3	2	2	2	3	3	3
PSO1	2	3	1	3	2	3	1	3	3
PSO2	3	2	2	3	3	2	2	3	2
PSO3	2	3	3	2	2	3	3	2	3

3 – Strong correlation; 2-moderate correlation; 1-Less correlation; Blank-no correlation

RATHINAM COLLEGE OF ARTS AND SCIENCE (AUTONOMOUS)
BBA LOGISTICS DEGREE PROGRAMME BBA (LOGISTICS) Curriculum Structure -
Regulation – 2024

(For students admitted from 2024-2025 and onwards)

S.N o.	Sem	Par t	Sub Type	Cour se Code	Course Name	Cre dit	Hou rs	INT	EX T	Total
1	1	1	L1		Language – I	3	5	50	50	100
2	1	2	L2		English – I	3	5	50	50	100
3	1	3	Core		Core Course – I Theory	4	5	50	50	100
4	1	3	Core		Core Course – II Theory /Practical	4	4	50	50	100
5	1	3	Allied		Allied-I	4	5	50	50	100
6	1	4	SEC		Skill Enhancement Courses – I Practical / Training -	4	4	50	50	100
7	1	4	AEC		Ability Enhancement Course I Environmental Studies or Universal Human Values & Professional Ethics	2	2	50	0	50
						24	30	350	300	650
1	2	1	L1		Language – II	3	5	50	50	100
2	2	2	L2		English – II	3	5	50	50	100
3	2	3	Core		Core Course – III Theory	4	5	50	50	100
4	2	3	Core		Core Course – IV Theory / Practical	4	4	50	50	100
5	2	3	Elective		Elective - I	4	4	50	50	100
6	2	3	Allied		Allied-II	4	5	50	50	100
7	2	4	AEC		Ability Enhancement Course II Design Thinking	2	2	50	0	50
8	2	5	Ext		Extension Activity - I (NASA)	1	0	25	0	25
						25	30	375	300	675

1	3	1	L1		Language – III	3	4	50	50	100
2	3	2	L2		English – III	3	4	50	50	100
3	3	3	Core		Core Course – V Theory	4	6	50	50	100
4	3	3	Core		Core Course – VI Theory / Practical	4	4	50	50	100
5	3	3	Allied		Allied-III	4	5	50	50	100
6	3	4	SEC		Skill Enhancement Courses – II Practical / Training	4	5	50	50	100
7	3	4	AEC		Ability Enhancement Course III Soft Skill-1	2	2	50	0	50
8	3	3	ITR		Internship / Industrial Training (Summer vacation at the end of II semester activity)	2	0	50	0	50
9	3	5	Ext		Extension Activity - II (NASA)	1	0	25	0	25
						27	30	425	300	725
1	4	1	L1		Language – IV	3	4	50	50	100
2	4	2	L2		English – IV	3	4	50	50	100
3	4	3	Core		Core Course – VII Theory	4	6	50	50	100
4	4	3	Core		Core Course – VIII Theory / Practical	4	4	50	50	100
5	4	3	Allied		Allied-IV	4	5	50	50	100
8	4	3	Elective		Elective - II	4	5	50	50	100
7	4	4	AEC		Ability Enhancement Course IV Soft Skill-2	2	2	50	0	50
8	4	5	Ext		Extension Activity - III (NASA)	1	0	25	0	25
						25	30	375	300	675
1	5	3			Allied Course –	2	4	0	100	100

					MOOC(Logistics 4.0)					
2	5	3			Apprenticeship – I	22	42	250	150	400
						24	46	250	250	500
1	6	3			Allied Course – MOOC (Multimodal transportation)	2	4	0	100	100
2	6	3			Apprenticeship – I	22	42	250	150	400
						24	46	250	250	500
					Total credit	149	212	2025	1700	3725

Core – Theory

S.No.	Sem	Prerequisite	Course Code	Course Name	Offering Department	Type Theory / Practical
1	I	HSC		Fundamentals of Logistics	Management	Theory
2	II	FOL		Freight Forwarding(Ocean & Air Cargo)	Management	Theory
3	III	HSC		MIS for Logistics	Management	Theory
4	IV	FF		Port Terminal Logistics	Management	Theory

Core - Theory / Practical

S.No.	Sem	Prerequisite	Course Code	Course Name	Offering Department	Type Theory / Practical
1	I	HSC		Materials Management	Management	Theory
2	II	WDC		Forecasting and Inventory Management	Management	Theory
3	III	HSC		Retail Logistics and E-Commerce	Management	Theory
4	IV	HSC		Logistics 4.0	Management	Theory

Allied

S.No.	Sem	Prerequisite	Course Code	Course Name	Offering Department	Type Theory / Practical
1	I	HSC		Business Mathematics	Management	Theory
2	II	HSC		Quantitative Techniques	Management	Theory
3	III	FF		Export and Import Documentation	Management	Theory
4	IV	FOL		Inland Waterways & Coastal Shipping	Management	Theory

Skill Enhancement Course

S.No.	Sem	Prerequisite	Course Code	Course Name	Offering Department	Type Practical / Training
1	I	HSC		Warehousing & Distribution Centre Operations	Management	Theory
2	III	HSC		Linear Logistics	Management	Theory

Elective

S.No.	Sem	Prerequisite	Course Code	Course Name	Offering Department	Type Practical / Training
1	II	HSC		Surface Transportation	Management	Theory
2	IV	HSC		Legal Aspects of Business in Logistics	Management	Theory

Additional Credits

S.No .	Sem	Part	Sub Type	Course Code	Course Name	Credit	Hours	INT	EXT	Total
1	2	6	VAC		VAC – Microsoft CoE Course / NPTEL	2	2	50	0	50
3	4	6	IDC		VAC – Microsoft CoE Course / NPTEL	2	2	50	0	50
4	5	6	VAC		VAC – Microsoft CoE Course / NPTEL	2	2	50	0	50

Parts	Sem I	Sem II	Sem III	Sem IV	Sem V	Sem VI	Total Credits
Part I	3	3	3	3			12
Part II	3	3	3	3			12
Part III	12	16	14	16	24	24	106
Part IV	6	2	6	2			16
Part V		1	1	1			3
Total	24	25	27	25	24	24	149

CORE COURSES

Semester 1

Course Code	Couse Title	Credit	Lecture	Tutorial	Practical	Type
24BBL1CA	FUNDAMENTALS OF LOGISTICS	4	4	4	-	Theory

Course Objectives:

- To develop competencies and knowledge of students to become logistics professionals
- To orient students in the field of Logistics

To help Students to understand Fundamentals of Logistics

Course Outcomes	On completion of this course, students will
CO 1:	Comprehend the fundamental principles of logistics management.
CO 2:	Analyze and apply customer service concepts in logistics.
CO 3:	Evaluate global logistics strategies and integration needs.
CO 4:	Understand the significance of warehousing, transportation, and e-commerce logistics.
CO 5:	Explore advanced logistics areas like EXIM, supply chains, and cold chain logistics.

Unit I:	Introduction to Logistics	[12 Periods]
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History of Logistics Need for logistics- Cost and Productivity, cost saving & Productivity improvement. Logistics Cost, reduction in logistics cost, benefits of efficient Logistics, Principles of Logistics, Technology & Logistics -Informatics, Logistics optimization. Listing of Sub-sectors of Logistics

Unit II:	Logistics and Customer Service	[12 Periods]
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Logistics and Customer Service - Definition of Customer Service Elements of Customer Service-Phases in Customer Service-Customer Retention - Procurement and Outsourcing - Definition of Procurement/Outsourcing - Benefits of Logistics Outsourcing - Critical Issues in Logistics Outsourcing

Unit III:	Global Logistics	[12 Periods]
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Global Logistics - Global Supply Chain - Organizing for Global Logistics-Strategic Issues in Global Logistics - Forces driving Globalization - Modes of Transportation in Global Logistics Barriers to Global Logistics - Markets and Competition - Financial Issues in Logistics Performance - Integrated Logistics - Need for Integration - Activity Centres in Integrated Logistics. Role of 3PL&4PL.

Unit IV:	Warehouse	[12 Periods]
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- a) Warehouse: Warehouse-Meaning, Types of Warehouses Benefits of Warehousing.
 b) Transportation- Meaning; Types of Transportations, efficient transportation system and Benefits of efficient transportation systems.
 c) Courier/Express - Courier/Express-Meaning, Categorization of Shipments, Courier Guidelines, Pricing in Courier - Express Sector for international and domestic shipping.
 E-Commerce - Meaning, Brief on Fulfillment Centers, Reverse logistics in e-commerce sector, Marketing in e-commerce and future trends in e-commerce..

Unit V:	EXIM:	[12 Periods]
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- a) EXIM: Brief on EXIM/FF & CC, Multi-modal transportation, brief on customs clearance, bulk load handling and brief on trans-shipment.
 b) Supply chain.
 c) Cold chain.
 d) Liquid Logistics. Rail Logistics.

Text Books:

1. Course Material Prepared by LSC
2. Fundamentals of Logistics Management (The Irwin/Mcgraw-Hill Series in Marketing), Douglas Lambert, James R Stock, Lisa M. Ellram, McGraw-hill/Irwin, First Edition, 1998.
- 3 Vinod V. Sople (2009) Logistic Management (2nd Edn.) Pearson Limited

Reference Books:

1. Logistics Management for International Business: Text and Cases, Sudalaimuthu & Anthony Raj, PHI Learning, First Edition, 2009.
2. Fundamentals of Logistics Management, David Grant, Douglas M. Lambert, James R.Stock, Lisa M. Ellram, McGraw Hill Higher Education, 1997.
3. Logistics Management, Ismail Reji, Excel Book, First Edition, 2008.

Web Resources: <https://d3bxy9euw4e147.cloudfront.net/oscms-prodcms/media/documents/FundamentalsofLogistics-OP.pdf>

Mapping of Course Outcome with Programme Outcome and Programme Specific Outcome:

Course Outcome	Programme Outcomes												Programme Specific Outcome		
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PO1 1	PO1 2	PSO 1	PSO 2	PSO 3
CO1	3	3	3	2	2	1	1	1	2	1	1	1	2	3	1
CO2	3	2	3	1	1	3	2	1	2	1	1	1	3	2	2
CO3	3	3	2	1	2	2	1	3	2	1	2	1	2	3	3
CO4	1	1	3	3	1	3	2	3	1	2	2	2	3	2	2
CO5	3	1	3	1	3	2	2	3	1	2	2	1	1	2	3

Semester 1

Course Code	Couse Title	Credit	Lecture	Tutorial	Practical	Type
24BBL1CB	MATERIALS MANAGEMENT	4	4	4	-	Theory
<p>COURSE OBJECTIVES:</p> <ul style="list-style-type: none"> • To help Students to understand basic Principles and concept of material Management • To orient students on contemporary development in the field of material management • To develop competencies and knowledge of students to become effective professionals 						
Course Outcomes	On completion of this course, students will					
CO 1:	To apply the knowledge about material management in the real-life business situation					
CO 2:	Understand the contemporary practices followed in the field of Materials Management					
CO 3:	To enhance their managerial ability and professional skills					
CO 4:	Utilize inventory models and forecasting methods for material planning.					
CO 5:	Ensure quality control and cost reduction through effective materials handling and storage systems.					
Unit I:						[12 Periods]
Introduction: Materials Management - Evolution, Importance, Scope and Objectives- Interface with other functions. -Supply Chain Management -Objectives- Components, Trade off Customer Service & Cost. Supply Chain Analytics.						
Unit II:						[12 Periods]

. Purchasing: purchasing and procurement activities under Materials management- Purchasing Methods- Purchasing and quality Assurance- Purchase Cycle – governmental purchasing practices and procedures - Negotiation & Bargaining – Vendor relations

Unit III: [12 Periods]

Inventory - Need of Inventory -Types of Inventory - Basic EOQ Model - EOQ with discounts – Different types of Analysis. Forecasting –methods of forecasting-Material Requirement Planning (MRP) -Input and output of MRP system
-BOM Explosion -MRP II.

Unit IV: [12 Periods]

Quality control of material: Incoming material quality control- statistical quality control(Various control charts)- Inventory control & Cost Reduction techniques. Value Analysis & Value Engineering. Standardization – need and importance. Codification - concept, benefits.

Unit V: [12 Periods]

. Stores - Functions- Stores layout -documentation- Materials handling and storage systems, - Principles of Materials Handling system – Safety issues

Text 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

Reference Books:

1. Introduction to Materials management - J.R. Tony Arnold & Stephen N. Chapman
2. Purchasing and Materials Management - K S Menon
3. Handbook of Materials Management – Gopalakrishnan

Web Resources:

[https://www.icsi.edu/media/website/Business%20Economics%20\(FndProg\).pdf](https://www.icsi.edu/media/website/Business%20Economics%20(FndProg).pdf)

Mapping of Course Outcome with Programme Outcome and Programme Specific Outcome:

Course Outcome	Programme Outcomes												Programme Specific Outcome		
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PO1 1	PO1 2	PSO 1	PSO 2	PSO 3
CO1	3	3	3	2	2	1	1	1	2	1	1	1	2	3	1
CO2	3	2	3	1	1	3	2	1	2	1	1	1	3	2	2
CO3	3	3	2	1	2	2	1	3	2	1	2	1	2	3	3
CO4	1	1	3	3	1	3	2	3	1	2	2	2	3	2	2
CO5	3	1	3	1	3	2	2	3	1	2	2	1	1	2	3

Semester 2

Course Code	Couse Title	Credit	Lecture	Tutorial	Practical	Type
24BBL2CA	FREIGHT FORWARDING (OCEAN AND AIR CARGO)	4	4	4	-	Theory

COURSE OBJECTIVES:

- To develop competencies and knowledge of students to become freight forwarding professionals
- To develop competencies on documentation procedures To help Students to understand freight forwarding

Course Outcomes	On completion of this course, students will
CO 1:	• Students will be able to apply the Basic knowledge of freight forwarding including ocean and air cargo in the real-life situation
CO 2:	• Students will be able to demonstrate their skill on documentation in their profession.
CO 3:	• This subject will enable them to enhance their ability and professional skills

CO 4:	<input type="checkbox"/> Students will demonstrate the ability to integrate cost -efficient practices in logistics operations while maintaining compliance with industry regulations.	
CO 5:	<input type="checkbox"/> Students will be able to adapt professional skills to evolving trends in global logistics, including e-commerce fulfillment and reverse logistics.	
Unit I:		[12 Periods]
Introduction to EXIM, Freight forwarding and custom clearance – types of custom clearances-Importance of custom clearance – certificate of origin, ICEGATE and insurance – custom Act – Regulations pertaining to custom clearance – different modes of freight forwarding — process of freight forwarding.		
Unit II:		[12 Periods]
Operation Procedures of Freight Forwarding - The procedures for Pre-Operating Checks and Operational checks to be performed for every shipment / consignment		
Unit III:		[12 Periods]
List of basic handling of errors and the Operational errors that occur in common - Procedure for checking of shipping bill, Airway bill based on invoice and packing list received from department for Freight Forwarding. Regulations (EXIM/IATA/Countries)/COM based on permutations and combinations of weight vs volume		
Unit IV:		[12 Periods]
Cargo handling, INCO terms and terminologies used in Cargoes - Different Types of Cargoes for transportation. Full Export and Import value of the cargo – Importer and exporter Code (IEC), The registered PAN based Business Identification number received from the Directorate General of Foreign Trade - Different type of Cargo, their quantity and value - Packaging requirement for the cargo during shipment from the shipper - Inspection procedure for the cargo while unloading - DO's and DON'T's while handling different cargo		
Unit V:		[12 Periods]
Documentation of Freight Forwarding process as per customer timelines and requirements - Carting, unloading, Stacking, Loading; and Stuffing - Procedure for dealing with loss or damage to goods - Different P.G.A and their roles. Technical knowledge on Containers; Pallets; Palletization; Fumigation- Letters of Credit and payment Terms. Etc. computer and its application in internal systems of documentation.		
Text Books:		
1. Course Material Prepared by LSC J P Saxena, Warehouse Management and Inventory Control- Vikas Publication House Pvt Ltd, First		

Edition, 2003

Reference Books:

1. Warehouse Management: Automation and Organisation of Warehouse and Order Picking Systems [With CDROM], Michael Ten Hompel, Thorsten Schmidt, Springer verlag, First Edition, 2006.
2. Management Guide to Efficient Money Saving Warehousing, Stephen Frey, Gower, 1982.
3. Swapna Pillai, Export Import Procedures & Documentation, Sahitya Bhawan Publication, 2020.

Web Resources:

<https://Freight-Forwarder-Business-Startup-Successful/dp/B0817BDVWS>

Mapping of Course Outcome with Programme Outcome and Programme Specific Outcome:

Course Outcome	Programme Outcomes												Programme Specific Outcome		
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PO1 1	PO1 2	PSO 1	PSO 2	PSO 3
C01	3	3	3	2	2	1	1	1	2	1	1	1	2	3	1
C02	3	2	3	1	1	3	2	1	2	1	1	1	3	2	2
C03	3	3	2	1	2	2	1	3	2	1	2	1	2	3	3
C04	1	1	3	3	1	3	2	3	1	2	2	2	3	2	2
C05	3	1	3	1	3	2	2	3	1	2	2	1	1	2	3

Semester 2

Course Code	Couse Title	Credit	Lecture	Tutorial	Practical	Type
24BBL2CB	FORECASTING AND INVENTORY MANAGEMENT	4	4	4	-	Theory

COURSE OBJECTIVES:

- To develop competencies and knowledge of students to become Forecasting and inventory management professionals
- To orient students in the field of Forecasting and inventory management
- To help Students to understand forecasting and inventory management

Course Outcomes	On completion of this course, students will	
CO 1:	<input type="checkbox"/> Understand the basics of forecasting and inventory management and how they apply to real-life situations.	
CO 2:	<input type="checkbox"/> Learn to use forecasting techniques to predict demand and manage stock effectively.	
CO 3:	<input type="checkbox"/> Develop skills to implement inventory control methods	
CO 4:	<input type="checkbox"/> Improve the ability to track and manage inventory using software tools.	
CO 5:	<input type="checkbox"/> Understand how inventory decisions impact business performance and learn strategies to reduce costs and improve efficiency.	
Unit I:		[12 Periods]
Forecasting: Meaning –Need -Types of forecasts –Demand Forecasting- Types of Demand Forecasting-Importance - Demand planning v/s Forecasting-Sources of demand-Supply chain dynamics		
Unit II:		[12 Periods]
Sales and Operations Planning- Goals and objectives of S&OP -Collaborative Planning-Types -Collaborative planning, forecasting and replenishment- Cyclic decomposition techniques. Short- term forecasting techniques- Technology Forecasting and Methodologies: Role of Technology Information Forecasting and Assessment Council (TIFAC).		
Unit III:		[12 Periods]
Inventory: Purpose of Inventory- -Types of Goods -General Management of Inventory- Multi-Echelon Inventory Systems -Use of Computers in Inventory Management- Evaluation of Performance of Materials Function–Latest trends in Inventory Management		
Unit IV:		[12 Periods]
Codification – Classification – Methodology–Requirement of codes – Coding Structure and Design–Advantages - International Codification – Right Quantity – Economic Ordering Quantity -Costs associated with Inventories- Models in logistics		
Unit V:		[12 Periods]
Influence of production policy on inventory levels – inventories and customer service level – steps to improve inventory management – optimum inventory –Inventory management uncertainty (fixed order quantity model) - Calculation of safety stocks		
Text Books:		
<ol style="list-style-type: none"> 1. Course Material Prepared by LSC 2. Sunil Chopra and Peter Meindl, Supply Chain Management Pearson Education Asia, 3rd edition, 2007 		

3. Chaman L Jain, —Fundamentals of Demand Planning & Forecasting, Graceway Publishing Company 3rd edition.

Reference Books:

1. Operations Research – Concepts, Problems & Solutions- Kapoor V.K.-Sultan Chand & Sons/2017- 978-81-8054-854-3 (TC-532)
2. 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.

Web Resources:

<https://sproutsocial.com/insights/marketing-resources/>

Mapping of Course Outcome with Programme Outcome and Programme Specific Outcome:

Course Outcome	Programme Outcomes												Programme Specific Outcome		
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3
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CO3	3	3	2	1	2	2	1	3	2	1	2	1	2	3	3
CO4	1	1	3	3	1	3	2	3	1	2	2	2	3	2	2
CO5	3	1	3	1	3	2	2	3	1	2	2	1	1	2	3

Semester 3

Course Code	Couse Title	Credit	Lecture	Tutorial	Practical	Type
24BBL3CA	MIS FOR LOGISTICS					Theory
COURSE OBJECTIVES:						
<ul style="list-style-type: none"> • To develop competencies and knowledge of students to become MIS for logistics professionals • To orient students in the field of Logistics • To help Students to understand MIS for Logistics 						
Course Outcomes	On compl tion of this course, students will					
CO 1:	<input type="checkbox"/> Unders and the basics of Management Information Systems (MIS) and their applicatio s in logistics operations.					
CO 2:	<input type="checkbox"/> Learn how to use MIS tools to manage and streamline logistics activities, such as transportation, warehousing, and supply chain management.					
CO 3:	<input type="checkbox"/> Develo the ability to analyze logistics data and generate reports to support decision-making.					
CO 4:	<input type="checkbox"/> Enhance skills in integrating technology for improving efficiency and accuracy in logistics p ocesses.					
CO 5:	<input type="checkbox"/> Unders and the role of MIS in optimizing logistics operations and reducing costs in real-world scenarios.					
Unit I:						[12 Periods]
Introduction- IT and management opportunities and challenges-Strategic planning and models - Information management & IT Architecture – IT Architecture & infrastructure, cloud computing and services, Virtualization and Virtual Machines						
Unit II:						[12 Periods]
Database Technology- Data warehouse- Data Mart Technologies- Data and Text mining- Business Intelligence & Analytics, Digital and physical document management. Networks, collaboration & sustainability: Business IT networks & components, communication technologies – Sustainability and Ethical issues - Internal control- Business Control and Auditing						
Unit III:						[12 Periods]
Dissemination of technology information- and strategic planning – Technology choice and evaluation methods – Analysis of alternative technologies – Implementing technology programmes - Intellectual Capital - An introduction to Intellectual Property Right - Patent -Copyrights - Trademarks and other issues.						
Unit IV:						[12 Periods]
Functional Area & Compliance systems: Management levels and functional systems Enterprise Systems and applications: Enterprise systems, Enterprise Resource Planning (ERP), Supply Chain Management (SCM), Collaborative Planning, Forecasting, and Replenishment system (CPFR), Customer Relationship Management (CRM). Performance Management: Data visualization, Mashups, and Mobile intelligence, Fleet Management Information System.						
Unit V:						[12 Periods]
Business Process and Project Management: - Architecture & IT design, System development, Software & Applications for management (Business software tools), Support system. ERP modules -sales and Marketing, Accounting, Finance, Materials and Production management etc.						
Text Books:						

1. Course Material Prepared by LSC
2. KENNETH C. L., JANE P. L., & RAJANISH DASS (2001) Management Information System - Managing the Digital Firm. Pearson Education: New Delhi.
3. RAVI, K., & ANDREW, B. W. Frontiers of Electronic Commerce. Pearson Education: New Delhi.

Reference Books:

1. KENNETH, C. L., & JANEP, L. (2001) Essentials of MIS. Prentice Hall India: New Delhi.
2. SADAGOPAN, S. (2003) Management Information System. Prentice Hall India: New Delhi.
3. EFF, O.Z. (2003) Management Information Systems. Vikas Publishing House Pvt. Ltd.: New Delhi.

Web Resources:

https://onlinecourses.nptel.ac.in/noc23_mg65/preview

Mapping of Course Outcome with Programme Outcome and Programme Specific Outcome:

Course Outcome	Programme Outcomes												Programme Specific Outcome		
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PO11	PO12	PSO 1	PSO 2	PSO 3
CO1	3	3	3	2	2	1	1	1	2	1	1	1	2	3	1
CO2	3	2	3	1	1	3	2	1	2	1	1	1	3	2	2
CO3	3	3	2	1	2	2	1	3	2	1	2	1	2	3	3
CO4	1	1	3	3	1	3	2	3	1	2	2	2	3	2	2
CO5	3	1	3	1	3	2	2	3	1	2	2	1	1	2	3

Semester 3

Course Code	Couse Title	Credit	Lecture	Tutorial	Practical	Type
24BBL3CB	RETAIL LOGISTICS AND ECOMMERCE	4	4	4	-	Theory

COURSE OBJECTIVES:

- To develop competencies and knowledge of students to become Retail logistics and E-commerce professionals
- To orient students in the field of Logistics
- To help Students to understand Retail logistics and E-commerce

Course Outcomes	On completion of this course, students will
CO 1:	<input type="checkbox"/> Students will learn to improve logistics operations in retail and e-commerce.
CO 2:	<input type="checkbox"/> Students will understand how to design effective supply chain strategies.
CO 3:	<input type="checkbox"/> Students will gain skills in using technology for inventory management and order fulfillment.
CO 4:	<input type="checkbox"/> Students will be able to reduce costs and improve performance in logistics.
CO 5:	<input type="checkbox"/> Students will learn to manage challenges in logistics and e-commerce, including customer expectations.

Unit I:	[12 Periods]
Concept and Scope: Concepts of Retail Logistics and supply chain- Importance of Logistics in these days global Sourcing, Dimension of Logistics: Macro and Micro aspects-Supply chain contours: Backward and forward linkages	
Unit II:	[12 Periods]
Logistics and Retail Marketing: Logistics as a Support function of Order Fulfilment, Assembling & Labelling from Multi-storage points and Delivery- Logistics as an interface of Market forecasting, Stock level management and other relevant activities till transportation, preparation for dispatch and outbound documentation and customer facilitation tracking out-bound shipments.	
Unit III:	[12 Periods]
Reverse Logistics: Basic of reverse logistics - concept, key activities , coordinating with carriers, route map optimization, collecting pickup and feedback - Types of reverse logistics –Roles and responsibilities - Best practices in reverse logistics	
Unit IV:	[12 Periods]
E-Commerce: Introduction to E-commerce logistics including delivery and pickup models and the overall logistic setup – Order Processing – Activities in order processing - Types of order processing - - Procedures for generating plans and schedules through MIS	

Unit V:		[12 Periods]
Types of Ecommerce- B2B-B2C and intra business. Retail Ecommerce – Retailing through internet, Direct Online Sales model and its types- Business Models for ecommerce. Electronic Payment system, Electronic CRM Applications. E-Security		
Text Books:		
<ol style="list-style-type: none"> 1. John Fernie & Leigh Sparks, Logistics and Retail Management: Emerging Issues and New Challenges in the Retail Supply Chain —,Kogan Page 3rd Edition,2009 2. James B. Ayers & Mary Ann Odegaard , —Retail Supply Chain Management —taylor & francis, 2nd edition 3. Mr. Gibson G, —Retail Management: Functional Principles & Practicess, Jaico Publishing house, 6th Edition, 2003. 		

Reference Books:		
<ol style="list-style-type: none"> 1. Ray, Supply Chain Management For Retailing, TMH, 2010. 2. James B. Ayers, Retail Supply Chain Management, Auerbach Publications,2007. 		
Web Resources:		
https://www.imf.org/external/pubs/ft/fandd/2011/03/basics.htm		

Mapping of Course Outcome with Programme Outcome and Programme Specific Outcome:															
Course Outcome	Programme Outcomes												Programme Specific Outcome		
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CO3	3	3	2	1	2	2	1	3	2	1	2	1	2	3	3
CO4	1	1	3	3	1	3	2	3	1	2	2	2	3	2	2
CO5	3	1	3	1	3	2	2	3	1	2	2	1	1	2	3

Semester 4

Course Code	Couse Title	Credit	Lecture	Tutorial	Practical	Type
24BBL4CA	PORT TERMINAL LOGISTICS	4	4	4	-	Theory
<p>COURSE OBJECTIVES:</p> <ul style="list-style-type: none"> To develop competencies and knowledge of students to Port terminals logistics professionals • To orient students in the field of Logistics To help Students to understand Port terminals logistics 						
Course Outcomes	On completion of this course, students will					
CO 1:	<input type="checkbox"/> Students will understand the basics of port terminal logistics and its importance.					
CO 2:	<input type="checkbox"/> Students will learn about the different operations and processes at port terminals.					
CO 3:	<input type="checkbox"/> Students will develop the ability to manage logistics operations at port terminals efficiently.					
CO 4:	<input type="checkbox"/> Students will gain knowledge about the role of technology in improving port terminal logistics.					
CO 5:	<input type="checkbox"/> Students will understand the challenges and solutions in port terminal logistics management.					
Unit I:						[12 Periods]
Difference between Major and Minor Ports - Ports in India - Natural Harbours - New Ports to be developed in India - Major Ports of the World - Largest Port in the world - Port Officials and their roles - Role of Ports - Who are Port users						
Unit II:						[12 Periods]
Container Terminals - Privatisation of Terminals - Reason for Privatisation - Major Terminal Operators in India- Terminal Operators of the world - Privatisation the need of the hour - Agreement between and existing Port Terminal and the new operator						
Unit III:						[12 Periods]

Import Cycle - Export Cycle - Positions and Places in a Terminal - Facilities in a Terminal - Container Monitoring and stacking - CFS inside a Terminal - Reasons for Congestion of a terminal - de-congesting the terminal - Window system in a terminal.

Unit IV: [12 Periods]

Major Port Trust Act - Port as a custodian of the cargo - Transit sheds - Cargo receivers - Wharfs and Berths - Various berths in a Port - Meaning of Berth Restrictions - Port equipment's and damage - Extra services - Berth reservation schemes

Unit V: [12 Periods]

Port Tariff - Pilots and their duties - Tugs and its usage - Night navigations - Light Dues - Tariff Authorities of Major Port - Revision of rates - Port Trustees - Safety Procedures - Introduction of ISPS - Damage to Port property by ships - Compensation and confiscation of cargo to adjust dues

Text Books:

1. Course Material Prepared by LSC
2. Major Port Trust Act – Government of India
3. Port Industry Statistics, American Association of Port Authorities

Reference Books:

1. AP MOLLOR Guide book on Terminal
2. DUBAI PORT AUTHORITIES Manual

Web Resources:

<https://logistics.gov.in/media/3whb3pbh/2015-book-supplychainmanagementandadvanc.pdf>

Mapping of Course Outcome with Programme Outcome and Programme Specific Outcome:

Course Outcome	Programme Outcomes												Programme Specific Outcome		
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CO3	3	3	2	1	2	2	1	3	2	1	2	1	2	3	3
CO4	1	1	3	3	1	3	2	3	1	2	2	2	3	2	2
CO5	3	1	3	1	3	2	2	3	1	2	2	1	1	2	3

Semester 4

Course Code	Couse Title	Credit	Lecture	Tutorial	Practical	Type
24BBL4CB	LOGISTICS 4.0	4	4	4	-	Theory

COURSE OBJECTIVES:

- To develop competencies and knowledge of students to understand the revolution in Logistics Industry
- To orient students in the field of Logistics
- To help students to learn the recent technology changes and challenges in Logistics Industry

Course Outcomes	On completion of this course, students will
CO 1:	<input type="checkbox"/> Students will understand the key concepts of Logistics 4.0 and its role in modern logistics.
CO 2:	<input type="checkbox"/> Students will learn about the technologies driving Logistics 4.0, such as IoT, AI, and automation.
CO 3:	<input type="checkbox"/> Students will develop the ability to apply advanced technologies to improve logistics operations.
CO 4:	<input type="checkbox"/> Students will gain skills to optimize supply chains using digital tools and real-time data.
CO 5:	<input type="checkbox"/> Students will understand the impact of Logistics 4.0 on efficiency, cost reduction, and customer satisfaction.
Unit I:	[12 Periods]

- 1.1 First Three Industrial Revolutions: Industry 1.0–3.0
- 1.2 Introduction to Industry 4.0
- 1.3 Digitalization and the Connected Economy
- 1.4 Drivers, Enablers, Compelling Forces and Challenges for Industry 4.0
- 1.5 The Journey so far: Developments in USA, Europe, China, and other countries
- 1.6 Comparison of Industry 4.0 Factory and Today's SMART Factory
- 1.7 Trends of Big Data (Evolution) along with the Maturity framework and Predictive Analytics for Smart Business Transformation

Unit II:[12
Periods]

- 2.1 Evolution of Logistics
- 2.2 Introduction to Logistics 4.0
- 2.3 Digital Transformation of Supply Chain Management
- 2.4 Advanced robots, Augmented Reality, Digital Twins
- 2.5 Simulation — Network simulation and optimization
- 2.6 The Industrial Internet of Things
- 2.7 Cloud Computing
- 2.8 Cyber Security
- 2.9 Big data and analytics – Data Warehouse v/s Data Mart

Unit III:[12
Periods]

- 3.1 Digitalization of Logistics and Challenges in Logistics 4.0
- 3.2 Inventory Control Systems (ICS)-MRP-1-MRP-2-ERP-1 3.3 The Internet of Things

- 3.3 Challenges of The Internet of Things
- 3.4 Changes in Business Models and Production Processes
- 3.5 Telematics Technology – Application in Logistics

Unit IV:[12
Periods]

- 4.1 Technology in Procurement 4.0 (Consignor Inventory Model)
- 4.2 Technology in Inventory Management 4.0 (Impact of Digital Technologies on the Inventory Management Techniques)
- 4.3 Technology in Logistics and Warehousing 4.0
- 4.4 Logistics and Supply Chain Analytics

Unit V:[12
Periods]

- 5.1 Business issues in Logistics 4.0
- 5.2 Opportunities and Challenges
- 5.3 Future of Works and Skills for Workers in the Logistics 4.0 Era
- 5.4 Advantages and disadvantages of Logistics 4.0
- 5.5 Strategies for competing in a Logistics 4.0 world

Text Books:

- Logistics 4.0: The Transformation of Logistics"** by Markus D. J. Weidlich
- The Digital Transformation of Logistics: The Impact of Industry 4.0"** by Jürgen K. R. Heim

Reference Books:

Supply Chain 4.0: How to Revolutionize Your Supply Chain with Digital Technologies" by Paul J. Beasley
Industry 4.0: The Industrial Internet of Things" by Alasdair Gilchrist

Web Resources:

<https://www.deufol.com/en/logistics-4-0-how-innovative-technologies-and-digital-transformation-revolutionizing-your-supply-chain>

Mapping of Course Outcome with Programme Outcome and Programme Specific Outcome:

Course Outcome	Programme Outcomes												Programme Specific Outcome		
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PO1 1	PO1 2	PSO 1	PSO 2	PSO 3
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CO3	3	3	2	1	2	2	1	3	2	1	2	1	2	3	3
CO4	1	1	3	3	1	3	2	3	1	2	2	2	3	2	2
CO5	3	1	3	1	3	2	2	3	1	2	2	1	1	2	3

ALLIED

Course Code	Couse Title	Credit	Lecture	Tutorial	Practical	Type
24BBL3AA	EXPORT AND IMPORT DOCUMENTATION	4	4	4	-	Theory

COURSE OBJECTIVES:

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

Course Outcomes	
	On completion of this course, students will
CO 1:	<input type="checkbox"/> Students will understand the key export and import documentation required for international trade, including bills of lading, invoices, and customs declarations.
CO 2:	<input type="checkbox"/> Students will learn how to prepare and manage documentation for customs clearance, ensuring compliance with international trade regulations.
CO 3:	<input type="checkbox"/> Students will develop the skills to complete essential shipping documents, such as packing lists, certificates of origin, and letters of credit.
CO 4:	<input type="checkbox"/> Students will gain the ability to identify and address common challenges in export and import documentation, ensuring smooth and timely shipments.

CO 5:	<input type="checkbox"/> Students will understand the role of digital tools and systems in automating and streamlining export and import documentation processes.	
Unit I:		[12 Periods]
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.		
Unit II:		[12 Periods]
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.		
Unit III:		[12 Periods]
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		
Unit IV: [12		Periods]
Quality Control and Clearance of Cargo 15Hrs Objective of Quality Control - Methods - Procedure for Preshipment 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.		
Unit V:		[12 Periods]
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 Books:		

1. RAMA, GOPAL C. (2008) Export Import Procedures Documentation and Logistics. New Age International Publishers: New Delhi.
2. KHUSHPAT, S. J. (2013) Export Import Procedures and Documentation. Himalaya Publishing House: New Delhi.
3. PAWAN, KUMAR (2001) Export of India's Major Products Problems and Prospects. New Century Publications: New Delhi.

Reference Books:

1. KAPOOR, D. C. (2002) Export Management. Vikas Publications: New Delhi.
2. CHERUNILAM, F. (2004) International Trade and Export Management. Himalaya Publications: New Delhi.

Web Resources:

1. 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)

Mapping of Course Outcome with Programme Outcome and Programme Specific Outcome:

Course Outcome	Programme Outcomes												Programme Specific Outcome		
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CO2	3	2	3	1	1	3	2	1	2	1	1	1	3	2	2
CO3	3	3	2	1	2	2	1	3	2	1	2	1	2	3	3
CO4	1	1	3	3	1	3	2	3	1	2	2	2	3	2	2
CO5	3	1	3	1	3	2	2	3	1	2	2	1	1	2	3

Course Code	Couse Title	Credit	Lecture	Tutorial	Practical	Type
24BBL4AA	INLAND WATER WAYS AND COASTAL SHIPPING	4	4	4	-	Theory

COURSE OBJECTIVES:

- To familiarize the student with the basic concept of Inland water ways and coastal shipping, their importance and future development of Indian water ways

Course Outcomes	On completion of this course, students will	
CO 1:	☐ Students will understand the basic concepts of inland waterways and coastal shipping, along with their importance in transportation and trade.	
CO 2:	☐ Students will gain knowledge of the different types of inland waterways and coastal shipping routes in India.	
CO 3:	☐ Students will learn about the advantages and challenges of using inland waterways and coastal shipping for sustainable and cost-effective logistics.	
CO 4:	☐ Students will develop the ability to analyze the economic and environmental impact of inland waterways and coastal shipping on regional development.	
CO 5:	☐ Students will be able to identify future opportunities and challenges for the development of Indian inland waterways and coastal shipping.	
Unit I:		[12 Periods]
Basics of shipping- Introduction for shipping - Types of ship- sizes of ship – Basic terminology of ships- Sea transport and its importance- Roll of ports in sea transport - Coastal shipping and its importance..		
Unit II:		[12 Periods]
Inland waterways: Introduction –Scope –Sources (lakes, Rivers, Canals, Back water, creeks, water courses inlets and bays)-Working principles -Impact - Inland waterways in India: locations		
Unit III:		[12 Periods]
Roll and importance of inland waterways: Infrastructure facility required - Roll and importance of inland waterways in transportation- Transportation through creeks		
Unit IV:		[12 Periods]
Inland waterways: Road connectivity – Availability of cargo (scarcity)-Navigation (night navigation)- Draft restriction.		
Unit V:		[12 Periods]
Inland waterways in other countries: Bangladesh – China - Vietnam - Europe Inland waterways in India: Network in India –upcoming inland waterways – Inland waterways authority – Government policies on inland waterways – National waterways Act		
Text Books:		
<ol style="list-style-type: none"> 1. Course Material Prepared by LSC 2. Inland Waterway Transport: Challenges and prospects (Routledge Studies in Transport Analysis) Hardcover – Import, 12 Jul 2016 by Bart Wiegmans (Editor), Rob Konings (Editor) 		
Reference Books:		
3. Inland waterways Transportation (IWT) in India – Machiraju presentation Pvt ltd.		
Web Resources:		

2. 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)

Mapping of Course Outcome with Programme Outcome and Programme Specific Outcome:

Course Outcome	Programme Outcomes												Programme Specific Outcome		
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CO4	1	1	3	3	1	3	2	3	1	2	2	2	3	2	2
CO5	3	1	3	1	3	2	2	3	1	2	2	1	1	2	3

SKILL ENHANCEMENT COURSE

Course Code	Couse Title	Credit	Lecture	Tutorial	Practical	Type
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24BBL1ZA	WAREHOUSING & DISTRIBUTION CENTRE OPERATION	4	4	4	0	T
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Course Objective: To develop competencies and knowledge of students to become Warehouse professionals and To help Students to understand Warehousing and distribution centre operations

Course Outcomes	On completion of this course, students will
CO 1:	To apply the Basic knowledge of Warehousing and distribution centre operations in the real-life situation
CO 2:	To enhance their ability and professional skills
CO 3:	To Understand the contemporary Practices in the Industry
CO 4:	To orient students about contemporary practices followed in Warehousing & Logistics
CO 5:	Demonstrate an understanding of the core functions of warehousing, including the principles of inventory storage, handling, and retrieval systems.

Unit I:		[12 Periods]
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Introduction to Warehouse (Storage and Packaging) Background - Types of Warehouses - Broad functions in a warehouse - warehouse layouts and layout related to functions. Equipment requirement in warehouse - Strategic Aspects of Warehouse

Unit II:		[12 Periods]
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Receiving of Goods- Advanced shipment notice (ASN)-Goods Receipt note-(GRN)-Stages involved receipt of goods- Visual inspection of goods unloaded- Formats for recording of goods unloaded from carriers- Procedure for Arranging of goods on dock -Put away of Goods- its activity -Putawaylist and itsneed-Put away of goods into storage locations - storage location codes and its application

Unit III:		[12 Periods]
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Procedure to prepare warehouse dispatches-Preparing Packaging List/Dispatch Note-Packaging-its importance of packing-Packaging Materials-reading Labels-quality parameters in packing significance-Cross Docking Method-and its application- Automation: Pick / Put to Light - A Frame - Automated Order Selection – Pick-N- Go - Outbound Sorters - Automatic Truck Loading.

Unit IV:		[12 Periods]
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Distribution – Definition – Need for physical distribution –concept – system perspective - functions of distribution
 – marketing forces affecting distribution. Channels of distribution: role of marketing channels – channel functions
 – channel structure –designing distribution channel – choice of distribution channels

Unit V:		[12 Periods]
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Warehouse Safety Rules and Procedures: Hazardous cargo – Procedure for Identification of Hazardous Cargo - safety data sheet- Familiarization with the industry. Health, Safety & Environment - 5S Concept on shop floor. Personal protective Equipment's (PPE) and their uses.

Text Books:

1. Course Material Prepared by LSC
2. Definitive Guide to Warehousing, The: Managing the Storage and Handling of Materials and Products in the Supply Chain (Council of Supply Chain Management Professionals) 1st Edition

Reference Books:

1. Warehouse Management: A Complete Guide to Improving Efficiency and Minimizing Costs in the Modern Warehouse- III Edition-Gwynne Richards

Web Resources:**Mapping of Course Outcome with Programme Outcome and Programme Specific Outcome:**

Course Outcome	Programme Outcomes												Programme Specific Outcome		
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CO4	1	1	3	3	1	3	2	3	1	2	2	2	3	2	2
CO5	3	1	3	1	3	2	2	3	1	2	2	1	1	2	3

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Course Code	Course Title	Credit	Lecture	Tutorial	Practical	Type
24BBL3ZA	LINER LOGISTICS	4	4	4	-	Theory
Course Objective: To develop competencies and knowledge of students to Liner logistics professionals, in the field of Logistics						
Course Outcomes	On completion of this course, students will					
CO 1:	Explain the fundamentals of logistics and supply chain management with a focus on linear systems					
CO 2:	This subject will enable them to enhance their ability and professional skills in Logistics					
CO 3:	Evaluate and design linear logistics networks for efficient transportation and distribution of goods.					
CO 4:	Students will be able to apply the Basic knowledge of Liner Logistics in the real-life situation					
CO 5:	Work effectively in multidisciplinary teams to solve real-world logistics challenges					
Unit I:						[12 Periods]
Definitions of liner trades; tramp trades; containerization- Unitization - containerization, liner operations, port organization – Vessel loading and discharging, liner trade routes, The major ports, liner service options - Liner trade – ship types – Tonnages; basic ship layout, types of container ships, Ro-Ro barge carrying vessels, The refrigerated cargo ship conventional (Break bulk) vessels future vessel developments, economy of scale, shipboard handling equipment.						
Unit II:						[12 Periods]
Cargoes & cargo equipment – Dangerous goods IMO special goods, cargo handlings other methods of lifting cargo port handling equipment, port terminals; port and terminal management; the role of ships officers - agent. Liner Shipping operations - Management and policy, ship management and operations, independent ship management, insurance, trade of commercial department, accounting, budgeting, freight collection and port disbursements agency duties.						
Unit III: [12						Periods]
Containerization unitization and inter-modalism - Growth in world trade unitization; container dimensions, types of container other container expressions container inventory, owning, leasing meeting the demand for containers tracking the container fleet, container control, FCLS LCLS & ICDS, legal & insurance implications in the container trade.						
Unit IV:						[12 Periods]
The Bill of Lading and other Documentation - The Bill of Lading UK bill of lading Act 1855 and UK carriage of goods by sea Act 1992, The use of Bill of Lading in liner trades, Bill of Lading documentary credits, Bill of Lading clauses The printed clauses – The evidence of the contract, other forms of Bill of Lading other liner documents, Intl conventions relating to Bill of Lading, paperless trading						
Unit V: [12						Periods]

The Exchange of goods transfer - Transfer of funds from country to country, methods of payments in International trade who are the merchants, International contracts of sale INCO terms; Legal aspects of the liner trades - The carrier insurance the carrier's liability for the cargo the liabilities of the agent, legal aspects of the Bill of Lading, cargo claims general average (GA), security, ISPS code.

Text Books:

1. Course Material Prepared by LSC
2. Ship Operation Management, Fujita, N.H. Publisher, 1974.
Ship Operation Management, Bertrams Publication, 2010

Reference Books:

1. Handbook of Ship Calculations, Construction and Operation, Charles H. Hughes, Wexford College Press, 2008.
2. Ocean Shipping - Elements of Practical Steamship Operation, Robert Edwards Annin, Thompson Press, 2010.

Web Resources:

<http://linear-logistics.com>

Mapping of Course Outcome with Programme Outcome and Programme Specific Outcome:

Course Outcome	Programme Outcomes												Programme Specific Outcome		
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PO1 1	PO1 2	PSO 1	PSO 2	PSO 3
CO1	3	3	3	2	2	1	1	1	2	1	1	1	3	1	2
CO2	3	2	3	1	1	3	2	1	2	1	1	1	3	2	2
CO3	3	3	2	1	2	2	1	3	2	1	2	1	2	3	3
CO4	1	1	3	3	1	3	2	3	1	2	2	2	3	2	2
CO5	3	1	3	1	3	2	2	3	1	2	2	1	1	2	3

ELECTIVE

Course Code	Couse Title	Credit	Lecture	Tutorial	Practica l	Type
24BBL2EA	SURFACE TRANSPORTATIO N	4	4	4	0	T
Course Objective: To help Students to understand basics of surface transportation including road and rail transport and To develop competencies and knowledge of students to become transportation professionals						
Course Outcomes	On completion of this course, students will					
CO 1:	Demonstrate a thorough understanding of the basic concepts, modes, and types of surface transportation, including road, rail, and pipeline systems.					
CO 2:	Students will be able to apply the knowledge of surface transportation in the real-life situation					
CO 3:	Enhancement of professional skills with regard to the field					
CO 4:	Analyze the environmental and regulatory challenges faced by surface transportation systems, including sustainability practices and compliance with laws and standards.					
CO 5:	Evaluate the role and importance of surface transportation in logistics and supply chain management, and its impact on cost, time, and service quality					
Unit I:						[12 Periods]
Introduction to surface transportation -Need - functions of transportations in logistics -Types of transportations metrics -various land transport carriers and their Load capacities - types of temperaturecontrolled carriers-inter modal transport -verification of carriers and drivers -transit rules						
Unit II:						[12 Periods]
Transportation Optimisation -Documentation for transportation – GST – E Waybill Filing - Importance of consignment number -Transportation Telematics -Vehicle tracking system - GPS systems -Procedure for downloading and reading tracking data from devices -Probable reasons for delay or any issues during transit -Solutions - re-routing						
Unit III: [12						Periods]

Organisation structure in a Transport organization- Incident management systems & Processes - hazmat goods rules -Importance of safety data sheet and labels -Procedure for Consolidation of consignments for optimal loads
-Reporting discrepancies such as pilferages, loss or damage of goods in transit -Checking insurance and claims -steps to close deliveries.

Unit IV: [12 Periods]

Benefits of efficient transportation systems-emerging trends in transportation sector-pricing in transportation sector-govt regulations on transportation in India. Safety procedures during transit and emergency response steps - List of good practices in driving.

Unit V: [12 Periods]

Customer Management-Vendor coordination for return truck loads-DG Handling – features and facilities offered by railways – innovative schemes-facilities to popularize rail logistics in India

Text Books:

1. Course Material Prepared by LSC
2. J P Saxena, Warehouse Management and Inventory Control-Vikas Publication House Pvt Ltd, First Edition, 2003.

Reference Books:

1. A Practical Guide to Logistics: An Introduction to Transport, Warehousing, Trade and Distribution - Jerry Rudd-Kogan Page publications
2. Management Guide to Efficient Money Saving Warehousing, Stephen Frey, Gower, 1982.
3. Kapoor Satish K., and KansalPurva, ‘Basics of Distribution Management: A Logistical Approach’, Prentice HALL of India

Web Resources:

1. <https://www.fhwa.dot.gov/>
2. <https://www.trb.org/>

Mapping of Course Outcome with Programme Outcome and Programme Specific Outcome:

Course Outcome	Programme Outcomes												Programme Specific Outcome		
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PO1 1	PO1 2	PSO 1	PSO 2	PSO 3
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CO2	3	2	3	1	1	3	2	1	2	1	1	1	3	2	2
CO3	3	3	2	1	2	2	1	3	2	1	2	1	2	3	3
CO4	1	1	3	3	1	3	2	3	1	2	2	2	3	2	2
CO5	3	1	3	1	3	2	2	3	1	2	2	1	1	2	3

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Course Code	Couse Title	Credit	Lecture	Tutorial	Practical	Type
24BBL4EB	LEGAL ASPECT OF BUSINESS IN LOGISTICS	4	4	5	0	T
Course Objective: To develop competencies and knowledge of students to Liner logistics professionals, in the field of Logistics,						
Course Outcomes	On completion of this course, students will					
CO 1:	Students will be able to explain the fundamental principles and structures of business law					
CO 2:	Students will demonstrate an understanding of contract law, including the elements of a legally enforceable contract.					
CO 3:	Analyze legal issues that commonly arise in business settings, such as contract formation, employment law, and regulatory compliance					
CO 4:	Develop ethical reasoning skills, enabling them to make sound legal and ethical decisions in business situations.					
CO 5:	Students will enhance their ability to think critically and solve legal problems.					
Unit I:	THE INDIAN CONTRACT ACT 1872:				[12 Periods]	
Definition of contract, essentials elements and types of a contract, Formation of a contract, performance of contracts, breach of contract and its remedies, Quasi contracts - Contract Of Agency: Nature of agency, Creation and types of agents, Authority and liability of Agent and principal: Rights and duties of principal and agents, termination of agency.						
Unit II:	THE SALE OF GOODS ACT, 1930 & NEGOTIABLE INSTRUMENTS ACT 1881				[12 Periods]	

THE SALE OF GOODS ACT, 1930 : Contract of sale, meaning and difference between sale and agreement to sell, Conditions and warranties, Transfer of ownership in goods including sale by a non-owner , Unpaid seller – meaning, rights of an unpaid seller against the goods and the buyer.

NEGOTIABLE INSTRUMENTS ACT 1881: Nature and requisites of negotiable instruments. Types of negotiable instruments, liability of parties, holder in due course, special rules for Cheque and drafts, discharge of negotiable instruments. The Partnership Act, 1932 a. Definition – Partner, Partnership b. Nature and Characteristics of Partnership

Unit III:	COMPANY LAW AND COMPETITION ACT	[12 Periods]
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COMPANY ACT 1956&2013: Major principles – Nature and types of companies, Formation, Memorandum and Articles of Association, Prospectus, Power, duties and liabilities of Directors, winding up of companies, Corporate Governance. **Competition Act 2002:** Introduction, Definitions, Enquiry into Certain Agreements and Dominant Position of Enterprise and Combinations.

Unit IV:	INDUSTRIAL LAW & CORPORATE TAX	[12 Periods]
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INDUSTRIAL LAW: An Overview of Factories Act - Payment of Wages Act - Payment of Bonus Act - Industrial Disputes Act. **CORPORATE TAX:** Corporate Tax Planning, Corporate Taxes and Overview of Latest Developments in Indirect tax Laws relating to GST: An introduction including constitutional aspects, Levy and collection of CGST & IGST

Unit V:	CONSUMER PROTECTION ACT AND	[12
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INTRODUCTION OF CYBER LAWS	Periods]
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CONSUMER PROTECTION ACT : Consumer Protection Act – Consumer rights, Procedures for Consumer grievances redressal, Types of consumer Redressal Machineries and Forums- **INTRODUCTION OF CYBER LAWS :** Cybercrimes, IT Act 2000 and 2002, Cyber Laws, Introduction of IPR Intellectual Property Laws- Introduction, Legal Aspects of Patents, Filing of Patent Applications, Rights from Patents, Infringement of Patents, Copyright and its Ownership, Infringement of Copyright, Civil Remedies for Infringement – Copy rights, Trade marks, Patent Act. Introduction, Right to Information Act, 2005.

Text Books:

- 1.Shukla M.B. – Business Ethics: Texts and Cases
- 2.J.P.Sharma – Corporate Governance , Business Ethics & CSR, Ane Books Pvt. Ltd, New Delhi
- 3.N.D.Kapoor- Elements of Mercantile Law

Reference Books:

- 1.M.C.Shukla-A Manual of Mercantile Law
2. Pandia R.H.-Mercantile Law
3. K.P.Kandasami- Banking Law &Practice

Web Resources:

https://onlinecourses.swayam2.ac.in/cec20_hs23/preview

Mapping of Course Outcome with Programme Outcome and Programme Specific Outcome:

Mapping of Course Outcomes with Program Outcomes:

Course	Programme Outcomes	Programme Specific Outcome
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Rathinam College of Arts & Science (Autonomous), Coimbatore-21.

Admitted in BBA (Logistics)) from the academic year 2024-2025 Onwards

Regulations 2024

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CO3	3	3	2	1	2	2	1	3	2	1	2	1	2	3	3
CO4	1	1	3	3	1	3	2	3	1	2	2	2	3	2	2
CO5	3	1	3	1	3	2	2	3	1	2	2	1	1	2	3