PimpriChinchwad Education Trust's PIMPRI CHINCHWAD COLLEGE OF ENGINEERING

SECTOR NO. 26, PRADHIKARAN, NIGDI, PUNE 411044

AnAutonomous Institute Approved by AICTE and Affiliated toSPPU, Pune



Ourriculum Structure and Syllabus

of

B. Voc. Logistics Management

(Regulations 2023)



Effective from Academic Year 2024-25

Chairman

Chairman
BoS B.Voc. Program
PCET's, Pimpri Chinchwad College of Engineering
Sector No. 26, Pradhikaran, Nigdi, Pune-44

Chairman
Academic Council
PCET's, Pimpri Chinchwad College of Engineering
Sector No. 26, Pradhikaran, Nigdi, Pune-44

Institute Vision

To be one of the top 100 Engineering Institutes of India in coming five years by offering exemplarily Ethical, Sustainable and Value Added Quality Education through a matching ecosystem for building successful careers.

Institute Mission

- 1. Serving the needs of the society at large through establishment of a state-of-art Engineering Institute.
- 2. Imparting right Attitude, Skills, and Knowledge for self-sustenance through Quality Education.
- 3. Creating globally competent and Sensible engineers, researchers and entrepreneurs with ability to think and act independently in demanding situations.

Quality Policy

We at PCCOE are committed to impart Value Added Quality Education to satisfy the applicable requirements, needs and expectations of the Students and Stakeholders. We shall strive for academic excellence, professional competence and social commitment in fine blend with innovation and research. We shall achieve this by establishing and strengthening state-of- the-art Engineering and Management Institute through continual improvement in effective implementation of Quality Management System.



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ABBREVIATIONS

Abbreviations	Course Full Name
MJ	Major Course
MI	Minor Course
MD	Multidisciplinary Course
AEC	Ability Enhancement Course
VAC	Value added Course
SEC	Skill Enhancement Course
FA	Formative Assessment
SA	Summative Assessment

CURRICULUM STRUCTURE

STRCTURE FOR \mathbf{I}^{ST} YEAR B. Voc. (LOGISTICS MANAGEMENT) SEMESTER I

B. Voc. Stru	B. Voc. Structure Sem-I					me	Examination Scheme							
Course Code	Course Type	Course Name	L	P	Н	CR	FA1	FA2	SA	TW	OR	PR	Total	
VLM21101	МЈ	Major Course I:: Fundamentals of Supply Chain Management	3	-	3	3	25	25	50	-	-	-	100	
VCM21201	MI	Minor Course I: Introduction to Logistics Management	3	-	3	3	25	25	50	-	-	-	100	
VLM21301	MD	Multidisciplinary Course I:Fundamentals of Management	2	-	2	2	20	20	40	-	-	-	80	
VLM21401	AEC	Ability Enhancement Course I: Writing skills		2	2	1	-	-	-	50	-	-	50	
VLM21501	VAC	Value added Course I: Health &Wellness I		2	2	1	-	-	-	50	-	-	50	
VLM21601	SEC	Internship I: On Job Training	-	20	20	10	-	-	-	-	-	200	200	
	Total			24	32	20	70	70	140	100	-	200	580	

SEMESTER II

B. Voc. Struc	ture	Sem-II	Tea	ching	Schei	ne	Examination Scheme							
Course Code	Course Type	Course Name	L	P	Н	CR	FA1	FA2	SA	TW	OR	PR	Total	
VLM22102	МЈ	Major Course II: Warehouse & Inventory Management	3	-	3	3	25	25	50	-	-	-	100	
VCM22202	MI	Minor Course II: Marketing Management & Customer Relationship Management	3	-	3	3	25	25	50	-	-	-	100	
VLM22302	MD	Multidisciplinary Course II: Business Accounting	2	-	2	2	20	20	40	-	-	-	80	
VLM22402	AEC	Ability Enhancement Course II: Soft Skills		2	2	1	-	-	-	50	-	-	50	
VLM22502	VAC	Value added Course II: IT Tools I		2	2	1	-	-	-	50	-	-	50	
VLM22602	SEC	Internship II: On Job Training	-	20	20	10	-	-	-	-	-	200	200	

Pimpri Chinchwad College of Engineering

Т	tal	8	24	32	20	70	70	140	100	-	200	580	
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STRUCTUREFOR IIND YEAR B. Voc. (LOGISTICS MANAGEMENT) SEMESTER III

B. Voc. Str	B. Voc. Structure Sem-III					eme	Examination Scheme						
Course Code	Course Type	Course Name	L	P	Н	CR	FA1	FA2	SA	T W	O R	PR	Tota
VLM23103	MJ	Major Course III: Transportation Management	3	-	3	3	25	25	50	-	-	-	100
VLM23203	MI	Minor Course III: Sales & Distribution Management	3	-	3	3	25	25	50	-	-	-	100
VLM23303	MD	Multidisciplinary Course III: IT Tools II	2	-	2	2	20	20	40	-	-	-	80
VLM23403	AEC	Ability Enhancement Course III: Business Communication I		2	2	1	-	-	-	50	-	-	50
VLM23503	VAC	Value added Course III: Health & Wellness II		2	2	1	-	-	-	50	-	-	50
VLM23603	SEC	Internship III: On Job Training	-	20	20	10	-	-	-	-	-	200	200
	Total				34	20	60	60	120	100	-	300	640

SEMESTER-IV

B. Voc. Str	B. Voc. Structure Sem-IV					eme	Examination Scheme						
Course Code	Course Type	Course Name	L	P	Н	CR	FA1	FA2	SA	TW	O R	PR	Tota l
VLM24104	MJ	Major Course IV: Management Information System in Logistics & Supply chain Management	2	-	2	2	20	20	40	-	-	-	80
VLM24105	MJ	Major Course IV: Green Logistics	2	-	2	2	20	20	40	-	-	-	80
VLM24205	MI	Minor Course V: Entrepreneurship Development	2	-	2	2	20	20	40	-	-	-	80
VLM24404	AEC	Ability Enhancement Course IV: Business Communication II		2	2	1	-	-	-	50	-	-	50
VLM24504	VAC	Value added Course IV: ERP in Logistics Management		2	2	1	-	-	-	50	-	-	50
VLM24604	SEC	Project I: Mini Project	-	4	4	2	-	-	-	-	-	50	50
VLM24605	SEC	Internship III: On Job Training	-	20	20	10	-	-	-	-	-	200	200

Tota	1 4	30	34	20	45	45	90	100	-	300	580
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 $\begin{array}{l} \textbf{Abbreviation: L-} \ Lecture; \textbf{P-} \ Practical; \textbf{H-} \ Hours; \textbf{CR-} \ Credits; \textbf{FA} \ 1-Internal \ Evaluation-1; \textbf{IE} \ 2-Internal \ Evaluation-II; \textbf{ETE} - End \ Term \ Examination; \textbf{TW} - Term \ Work; \textbf{OR} - Oral \ Exam, \textbf{PR} - Practical \ Exam. \end{array}$

STRUCTURE FOR III RD YEAR B. Voc. (LOGISTICS MANAGEMENT) SEMESTER V

B. Voc. Stru	B. Voc. Structure Sem-V					eme	Examination Scheme							
Course Code	Course Type	Course Name	L	P	Н	CR	FA1	FA2	SA	TW	OR	PR	Tota	
VLM25106	MJ	Core Course VI: Global Trade Management	3	-	3	3	25	25	50	-	-	-	100	
VLM25107	МЈ	Core Course VII: Lean Six Sigma in Logistics and Supply Chain	2		2	2	20	20	40	-	-	-	80	
VLM25108	МЈ	Core Course VIII: Global Logistics and Supply Chain Management	3	-	3	3	25	25	50	-	-	-	100	
VLM25109	МЈ	Core Course IX: Humanitarian Logistics	2	-	2	2	20	20	40	-	-	-	80	
VLM25606	SEC	Internship V: On Job Training	-	20	20	10	-	-	-	-	-	200	200	
	Total					20	70	70	140	-	-	300	580	

SEMESTER-VI

B. Voc. Struct	Sem-VI	Tea	ching	g Sch	eme	Examination Scheme							
Course Code	Course Type	Course Name	L	P	Н	CR	FA1	FA2	SA	T W	OR	PR	Total
VLM26110	MJ	Core Course X- Material Handling and Packaging	3	-	3	3	25	25	50	-	-	-	100
VLM26111	МЈ	Core Course XI- Port Terminal & Air Cargo Management	3	-	3	3	25	25	50	-	-	-	100
VLM26607	SEC	Project II: Project	-	8	8	4	-	-	-	50	150	-	200
VLM26608	SEC	Internship VI: On Job Training	-	20	20	10	-	-	-	-	-	200	200
Total	Total			30	34	20	45	45	90	50	150	250	630

Abbreviation: L- Lecture; **P**- Practical; **H**- Hours; **CR**- Credits; **FA 1** – Internal Evaluation-1; **IE 2**– Internal Evaluation-II; **ETE** – End Term Examination; **TW** – Term Work; **OR** – Oral Exam, **PR** – Practical Exam.

Course Syllabus Semester-I

Program:	B. Voc. (Logistic	s Management)	Semo	Semester: I					
Course:	Fundamentals of	Supply Chain M	lanagement	Code	e: VLM21101				
	Teaching Schem	e		Evaluati	on Scheme				
Lecture	Hours	Credit	FA 1	FA 2	SA	Total			
3	3	3	25	25	50	100			

- 1. To develop an understanding of basic concepts and the role of supply chain management in business.
- 2. To understand how supply chain drivers play an important role in redefining value chain excellence of Firms.
- 3. To develop analytical and critical understanding & skills for planning, designing and operations of supply chain.
- 4. To understand, appraise and integrate various supply chain strategies.

Course outcomes:

After learning the course, student will be able to

- 1. **Understand** the fundamentals concepts and Strategies in Supply Chain Management.
- 2. Understand the supply chain processes which are applied in various industries. .
- 3. **Understand** the Purchasing and Supplier management system and Vendor Management .
- 4. **Develop** an in-depth knowledge about CRM.
- 5. Apply logistics and supply chain strategies for value generation through IT.
- 6. **Identify** the Recent Trends and development in Supply chain management in various Business Sector.

Detailed Syllabus:

Unit	Description	Duration
		(45Hrs)
1	Introduction to Supply Chain Management: Introduction to the Concept of Supply Chain Management. Definition of Supply Chain Management. Importance of Supply Chain Management. The four phases of Supply Chain Management. The three Levels of Supply Chain Management: - Strategic, tactical, operational decisions. The Supply Chain Management Process in detail i.e. SCM building blocks. Four Primary Drivers of Supply Chain and Obstacles. Case Study: The Supply chain of Amul - From Cow to Kitchen	8
2	Key Supply Chain Business Processes: Concept of Supply Chain Planning & its Importance, Seven types of Supply Chains Models and examples, Eight keys of supply chain management processes, Concept of Sourcing in Supply Chain Management, The main steps to sourcing services or products. Concept of Producing and Distributing. Definition of Distribution Management. Distribution vs. Logistics. Three major distribution strategies, Factors affecting Distribution Strategy. Managing material flow and distribution. Impact of SCM on Grocery Industry, Retail Industry, and Distribution Strategies. Case study on Grofers: A Influencing Factors and Constraints in an E-Commerce Driven Supply Chain.	8
3	Purchasing and Supplier Management Concept of Purchasing and Supplier Management, Importance of Purchasing and Supplier Management, Procurement in Supply Chain Management, the typical steps in Procurement Process. Difference between Sourcing and Procurement. Concept of	0
	Vendor Management. Importance of Vendor Management, Factors to be considered before Vendor Selection Process, Steps in Vendor Selection Process, Sourcing and	8

	Suppliers Management, Concept of Procurement Outsourcing, reasons for Procurement outsourcing, , Concept of Global Sourcing, five levels of global sourcing, Advantages of Global Outsourcing, Case study: Amazon, Apple, & Walmart	
4	Forecasting Systems Design Concept of customer relationship management in supply chain management, Need of Customer Relationship Management in SCM, Four primary <u>principles of CRM</u> , Five Customer Centric Supply chain Metrics, Concept of Supplier Relationship Management, Types of Supply Chain Collaborations, Supplier Quality Management – Supply Chain Performance. Case studies	7
5	Network Design and Facilities Development Concept of Network Design in Supply Chain Management, Importance of Supply chain Network Design in Business Organizations, Role of network design in operations, Critical factors for network design in the supply chain, Concept Supply Chain Vulnerabilities and how it can be managed. Concept of Supply Chain Coordination and Integration: Role of IT, IT enabled SCM, Future of SCM. Case study on Management System Application in SCM	7
6	Recent Trends in Supply Chain Management Recent Developments in Supply Chain Management, Supply Chain and Service. Concept of Co- Maker ship, The Role of E- Commerce in Supply Chain Management, Green Supply Chain Management, Distribution Resource Planning, World Class Supply Chain Management. Case study: The coordination of E-commerce and Logistics A case study of Amazon.com	7

Text Books:

- 1. Martin Christopher, Logistics and Supply Chain Management.
- 2. Sunil Chopra and Peter Meindal, Supply Chain Management.
- 3. Donald J. Bowersox and David J. Clos, Integrated Logistics Management
- 4. N. Chandrasekharan, Supply Chain Management.

Reference Books:

- 1. Martin Christopher, Logistics and Supply Chain Management.
- 2. N. Chadrasekaran, *Supply Chain Management Process, System & Practice*, Oxford, 1st Edition.
- 3. Levi, Kaminsky et al, *Designing & Managing the Supply Chain Concept*, Strategies & Case studies, TMGH, 3rd Edition.

Program: B. Voc. (Logistics Management)				Semes	Semester: I		
Course:	urse: Introduction to Logistics Management Course Code: VLM2				21201		
	Teaching Scheme		Evaluati	on Scheme			
Lecture	Hours	FA 1	FA 2	SA	Total		
3	3	3	25 25 50 100				

- 1. To develop knowledge about key elements of logistics processes,.
- 2. To understand about the interconnectedness of business units and organizations (via the flow of products, money, and information) through Logistics Management.
- 3. To incorporate and learn the critical elements of logistics management processes based on the most relevant application in forward-thinking companies.
- 4. To incorporate a meaningful focus on the rate of change occurring in business today, and more specifically, in business logistics.

Course Outcomes:

After learning the course, students will be able to

- 1. **Understand** the fundamentals & various aspects of Logistics management .
- 2. **Understand** the critical elements of logistics Strategies.
- 3. **Apply** the rationale process of planning and resourcing in Logistic Management.
- 4. **Develop** in depth knowledge about the vehicles costing and related documentation
- 5. **Understand** the concept of Concept of Integrated Logistics and Quality Customer Service
- 6. Apply current trends & Technologies of Logistics Information Systems .

Detail	ed Syllabus	
Unit	Description	Duration (45 Hrs)
1	Introduction to Logistics Concept and Definition of Logistics, Evolution of Logistics, Objectives of Logistics, Elements of Logistics, Importance of Logistics, Types of Logistics Process of Logistic Cycle Functions of Logistics, Concept and definition of Logistics Management, Key logistics efficiency metrics of Logistics Management, Model in Logistics Management.,Role of logistics management, Effective Logistics and Competitive Advantage. Integrated Logistics Management, Logistics interface with marketing, Retails logistics. Case –Study – Mumbai Dabbawalas	8
2	Logistics Strategies Concept and definition of Manufacturing Logistics, three key components to effective manufacturing logistics, Common Challenges in Manufacturing Logistics. What is 4PL and what is 3PL? The difference between 4PL and 3PL, Concept and Definition of Logistics Strategy, Strategic role of logistics, Designing & implementing logistical Strategies. Strategy options: Lean strategies, Agile strategies & other strategies. Emerging concepts in logistics. Outsourcing Logistics: Reasons for outsourcing, Third party logistics provider, and Fourth party Logistics providers (4PL), Role of logistics providers. Case –Studies on Lean & Agile Strategies	8

3	Planning and Resourcing Need for Planning, Fleet management, Main types of road freight transport, Transport resource requirements, Vehicle routing and scheduling Vehicle Selection: Types of vehicle, Types of operations, Load types and characteristics, Main types of vehicle body, Implications of vehicle selection, Vehicle acquisition.	7
4	Vehicle Costing Reasons for road freight transport vehicle costing, Main types of costing systems, Vehicle standing costs, Vehicle running costs, Overhead costs, Costing the total transport operation Documenting and Information Flow: Advices, Planning, FTL, LTL, Documentation—Road Receipts/Truck Receipts/Waybills(RR/LR) Consignment note CMR(EU&Canada) Booking—Invoicing & Information Flow—Long Haul— Coordination with terminals Exceptional Loads (Project Cargo). Legislation: Operator licensing—Driver licensing—Driver's hours regulations. Case Studies on Documentation of Vehicle Planning	8
5	Integrated Logistics & Quality Customer Service Concept of Integrated Logistics, Customer service, importance, elements, the order cycle system, distribution channels, Functions performed, Types, designing. Case studies	7
6	CURRENT Contours Logistics Information Systems – Need, Characteristics and Design. E-Logistics – Structure and Operation. Logistics Resource Management e-LRM. Automatic Identification Technologies. Reverse Logistics – Scope, design and as a competitive tool - Green Logistics	7
T (D		

Text Books

- 1. David J. Bloomberg, Stephen Lemay, *Logistic*, 8th edition, Pearson Education Dorling Kindersley; 1st edition, 2015.
- 2. Satish C. Ailawadi& Rakesh Singh, *Logistics Management*, 2ndEdition, Prentice-Hall of India Pvt Ltd., New Delhi, 2013.

Reference books:

- 1. F. Robert Jacobs, William Berry, D. Clay Whybark, *Manufacturing Planning and Control for Supply Chain Management*, McGraw-Hill Professional Publishing.
- 2. Manish Govil and Marie Proth, Supply Chain Design and Management: Strategic and Tactical Perspectives, JeanAcademic Press.

Program: B. Voc. (Logistics Management)				Semes	ter: I		
Course:	Course: Fundamentals of Management				Code:	VLM21301	
	Teaching Scheme				aluatio	n Scheme	
Lecture Hours Credit			FA 1	F	'A 2	SA	Total
2 2 2			20		20	40	80

- 1. To Develop knowledge of fundamental management concepts and skills
- 2. To understand and apply the functions of management: such as planning, organizing, leading, controlling, and Decision Making.
- 3. To demonstrate critical thinking when presented with management problems.
- 4. To identify the key competencies needed to be an effective manager.

Course Outcomes:

After learning the course, students will be able to

- 1. **Understand** the concept of Management, Organization & Factors affecting Business Organization
- 2. **Understand** the need of planning function for accomplishment of a task
- 3. **Develop** in depth knowledge of organizing function & organizational culture.
- 4. **Understand** the Concept of Staffing and the related aspects for Human Resource Planning.
- 5. **Apply** necessary skills to Coordinate & Communicate and think effectively
- 6. Identify the areas to control and selecting the Appropriate controlling methods/Techniques.

Detailed Syllabus:

Unit	Description	Duration (30Hrs)
1	Basics of Management:	8
	Definitions of Management, Functions of Management, Significance of Management Objectives of Management, Nature of Management, and Levels of Management, Evolution of Management thought-Contribution of Taylor and Henry Fayol.	
	Concept of Business Organization, Nature of Business, Functions of Business Organization, Factors Affecting the Establishment of Business Organization,	
	Planning	
	Concept and Definition of Planning, Objectives of Planning, Nature of Planning, Importance of Planning, The Process of Planning, Limitations of Planning, Types of Plans, Concept and definition of Decision Making. Techniques and Process of decision making.	
2	Organizing Concept & Definition of Organizing, Objectives, Nature of organizing, Types of Organizational structures, Concept of Authority & Responsibilities, Delegation of authority, Concept of Centralization, Decentralization and Recentralization& Span of control. Concept of Organizational Culture Staffing	8
	Concept & Definition of Staffing, Staffing activities in HRM, Objectives of Staffing, Advantages of Staffing, Process of Staffing, Manpower requirements, Recruitment,. Selection Orientation and Placement, Training and Development, Performance Evaluation, Promotion and transfer.	

3	Coordination& Communication in Management	7
	Definition of Coordination, Characteristics of Coordination, Importance of Coordination, Symptoms of Poor Coordination, Tools for Coordinating the Activities, Co-operation for Coordination. Concept of Communication, Process of Communication, Types of communication, Barriers in communication.	
4	Controlling	7
	Definition, Purpose of Controlling, Importance of Controlling, Steps in Control	
	Process, Characteristics of Effective Controls, , Advantages of Controlling Process,	
	Planning and Controlling	

Text Books:

- 1. Principles and Practice of Management-Himalaya Publishing.
- 2. Dr. L. M. Prasad, *Principles and Practice of Management*, Sultan Chand & Sons.

Reference books:

- 1. Madhushree Nanda & Stephan Robbins, Fundamentals of Management: Essential Concepts and Applications.
- 2. Chhabra T, Fundamentals of Management.
- 3. Robbins Decenzo, Fundamentals of Management.

Program: B. Voc. (Logistics Management)				Sem	Semester: I		
Course:	rse: Writing Skills			Cod	e: Code: V	LM21401	
Teaching Scheme			Evaluation S	Scheme			
Practical	Hours	Credit	FA 1	FA 2	TW	Total	
2	2	1	-	-	50	50	

- 1) Understand the aspects and characteristics of effective writing skills.
- 2) Recognize the importance of effective writing skills in various contexts.
- 3) Demonstrate proficiency in different types of writing, including descriptive, narrative, persuasive, instructional, and formal business writing.
- 4) Develop the ability to critically evaluate and revise written work for structure, cohesion, coherence, grammar, correctness, completeness, logic, and other aspects of effective writing.
- 5) Apply effective writing techniques to communicate ideas clearly, persuasively, and professionally in diverse writing tasks.

Course Outcomes:

After learning the course students will;

- 1) Understand the essential aspects and significance of effective writing skills across personal, academic, and professional contexts.
- 2) Demonstrate proficiency in descriptive and narrative writing techniques, employing vivid language and sensory details to engage readers.
- 3) Develop critical thinking skills by summarizing complex material and providing insightful personal responses.
- 4) Apply persuasive writing strategies effectively and Produce professional written documents in various communication contexts, including letters and emails.

Detailed Syllabus:

Sr No	Description
1	Introduction to Effective Writing Skills Aspects and characteristics of writing skills. Importance of effective writing Skills.
2	Effective Writing Structure, Cohesion and Coherence, Grammar, Correctness, Completeness, Logic and other aspects of effective writing skills
3	Write a descriptive paragraph: Write a descriptive paragraph about a person, place, or object. Encourage them to use sensory details and vivid language to create a picture in the reader's mind.
4	Write a personal narrative: Write a personal narrative about a memorable event. Use descriptive language, dialogue, and reflection to make the story come alive.
5	Write a summary and response: Read an article or essay and write a summary of the main points, followed by a personal response that explains your thoughts and reactions to the piece.
6	Writing instructions Writing clear, concise and compete instructions

	Write a persuasive letter
7	Write a persuasive letter to a local or national government representative, expressing your opinions on a current issue or proposing a solution to a problem.
	Business email writing:
8	Write a business email on a given scenario. Write a formal email, using appropriate tone, format, and language.
	Report writing assignment:
9	Write a report on a given topic. Use a clear prompt, a report outline, in a structured and
	professional format, using appropriate language and terminology.
10	Job Application/ Cover Letter:
	Write a job application in a professional format with all the necessary details.

Instructions:

- The first lab activity is mandatory
- Any six assignments other than the first lab activity to be conducted

References:

- 1. Seely, John. Oxford Guide to Effective Writing and Speaking. OUP 2nd edition, 2005
- 2. Goins, Jeff. You Are a Writer (So Start Acting Like One). Tribe Press
- 3. Brohaugh, William. Write Tight: Say Exactly What You Mean with Precision and Power.
- 4. Janzer. Anne. The Writer's Process: Getting Your Brain in Gear. Cuesta Park Consulting, 2016
- 5. King, Stephen. On Writing: A Memoir of the Craft. Scribner, 2010

Program: B. Voc. (Logistics Management)					mester: I	
Course:	Health and We	llness I		Co	de: Code: V	LM21501
	Teaching Schem		Evaluati	on Scheme		
Practical Hours Credit			FA 1	FA 2	TW	Total
2 2 1 - 50					50	

Objectives:

- 1. Prepare graduates to become wellness, health, fitness, nutrition education or foodservice professionals.
- 2. Prepare students for a variety of careers in wellness, fitness, food and nutrition education and foodservice.

Course Outcomes: After learning the course students will be able to;

- 1. Students will be able to describe the principles of health and wellness from a multidimensional and interdisciplinary perspective.
- 2. Students will be able to think and act ethically in the context of health, nutrition and wellness.

Guideline:

Total: Any 5 experiments/assignments to be conducted

Detailed Syllabus:

Sr.No	Description						
	Psychology of happiness:						
1	What is happiness? What makes us happy? Socio-economic factors and happiness;Positive emotions.						
	Can we become happier?						
2	Genetic set-point and hedonic adaptation; Sustainable happiness model and intentionalactivities.						
	Happiness Activities 1:						
3	Expressing gratitude and positive thinking; Love and kindness; Avoiding overthinking and social comparison.						
	Happiness Activities 2:						
4	Identifying signature strengths; achieving happiness with "Flow".						
5	Is happiness sufficient? The concept of eudaimonic well-being; Self-determination and motivation.						
6	Meaning and purpose in life: The concept of meaning in life and logo-therapy; Life goals., correlation with program specific case studies.						

Reference Books:

- 1. W. Weiten, and M. A. Lloyd, *Psychology Applied to Modern Life*: Adjustment in the 21st Century, Wadsworth Publishing, 2007
- 2. R. Harington, *Stress, Health and well-being:* Thriving in the 21st century, Wadsworth Publishing, 2013.
- 3. I. Boniwell, *Positive psychology in a nutshell*, McGraw-Hill Education, 2012.

S. Lyubomirsky, *The how of happiness*, Penguine Press, 2008.

Program: B	B. Voc. (Logistics Management)				Semester:	I
Course: O	ourse: On Job Training			Code: V	LM21601	
Teaching Scheme			Evaluation Scheme			
Practical Hours Credit TW PR OR			Total			
20	20	10	-	200	-	200

Course Objectives:

- 1. To expose students to the industry environment and enhance their technical skills while working in Private/public enterprises, government agencies, research labs, or any other organized technical club.
- 2. To apply knowledge and abilities relevant to engineering technology concepts, principles, and techniques to real-life industrial work/projects.

To develop higher-order thinking skills to work with people of diverse backgrounds and cultures and work effectively within cross-disciplined environments.

Course Outcomes:

On the completion of the OJT, students will be able to -

- 1. To apply theoretical knowledge in real-life applications with new perspectives to problem-solving.
- 2. To practice communication and teamwork skills while building a professional network of prospective employment.
- To write technical reports and document the project outcomes along with enhancing the technical presentations skills

Guidelines: Students will take on-the-job training in the industry in the domain of Logistics as per the following job description and personal attributes.

Job Role: Warehouse Supervisor

Job Description
The individual supervises day-to-day operations at a warehouse by allocating resources, managing activities, and coordinating with clients and regulatory bodies. S/he is also responsible for measuring and reporting the effectiveness of warehousing activities and employees' performance.
Personal Attributes

The job holder should be physically and medically fit to undertake a warehouse operation which includes long-standing hours and occasional material movement. S/he should be observant, diligent, and have the good mathematical ability. S/he should have good team management skills and should communicate effectively in English and vernacular language.

Course Syllabus Semester-II

Program: B. Voc. (Logistics Management)				\$	Semes	ter: II	
Course: Warehouse & Inventory Managem			ment		Code:	VLM22102	
Teaching Scheme			Evaluation S	cheme			
Lecture Hours Credit FA 1 FA 2 SA Tot				Total			
3	3	3	25	25	5	50	100

- 1. To provide basic knowledge about Warehouse and Inventory Management
- 2. To provide an insight on technology used in warehousing.

Course Outcomes:

After learning the course students will be able to;

- 1. **Understand** the concept of Warehousing in business organization.
- 2. **Develop** knowledge about logistics operations and its optimum utilization
- 3. **Comprehend** the use of various Material Handling Systems
- 4. **Understand** the concept of inventory management in the warehouse.
- 5. **Apply** the concept of Manufacturing Planning and its changing Trends.
- 6. **Apply** business strategies and the competitive advantage.

Detailed Syllabus:

TT *4				
Unit	Description	(45Hrs)		
1	Introduction to Warehousing Concept, Decision making, Operations, Need for warehousing, Issues affecting warehousing, Various warehousing facilities, Different types of warehouses, Characteristics of ideal warehouses. Case Studies	6		
2	Warehouse Management Systems Introduction, necessity of WMS, Logics of determining locations and sequences, Independent demand systems, Uncertainties in material management systems, Dependent demand systems, Distribution resource planning. Case Studies	8		
3	The Principles and Performance Measures of Material Handling Systems Introduction. Vehicle travel path(time), Handling time, vehicle utilization, no of loads completed, congestion, Effective performance systems, Fundamentals of various types of material handling systems, automated storage and retrieval systems Bar coding technology and applications RFID technology. Case Studies	8		
4	Introduction to Inventory Management Role in supply chain, Role in competitive strategy, Role of inventory, Functions of inventory, Types of inventory ,WIP inventory, Finished goods inventory, MRO inventories, Cost of inventories,.SelectiveInventoryControlTechniques:ABCInventoryControl:Managin g inventories ABC, Multi,techelon inventory systems, Managing inventory in multi echelon networks, Managing inventory in single echelon networks. Various Approaches, Distribution Approaches, The True Multi Echelon approach.: Economic Order Quantity, Safety Stocks ,Inventory Management Systems, Forecasting Techniques ,Case Studies	9		

5	Manufacturing Planning Just in Time(JIT)—Working Process Inventories , Make or Buy Decisions , Concept of Outsourcing, Factors Influencing Make or But Decisions, Trends in Make or Buy Decisions in context of core competency. Purpose of Inventory: Goods, Types of Goods , Finished Goods Inventories, General Management of Inventory , Stocks, Types of Stocks , Tracking the Paper Life. Case Studies	
6	Decisions in Warehousing Introduction and Space Determination in Warehouse Planning, Warehouse Operations, and Layout Decisions, Handling Decisions, Layout Configuration Decisions, Case Studies	7

Text Books:

- 1. S. Chand and Co., Stores Management and Logistics, Martin Christopher, 2003.
- 2. ChapmanandHall, Logistics The Strategic Issues, MartinChristapher, 2016.
- 3. Raghuram G., Logistics and Supply Chain Management, Pearson education, 2015.

Reference Books:

- 1. Lee Krajewski, Larry Ritzman, Manoj Malhotra, *Operations Management*, Pearson Education.
- 2. J.R. Tony Arnold, Stephen Chapman, *Introduction to Materials Management*, Ramakrishnan, Pearson.
- 3. Bose & D Chandra, *Inventory Management*, 1stEdition.
- 4. SridharaBhat, *Inventory Management*, 2ndEdition.
- 5. Bose & D Chandra, Inventory Management, 1 Edition

Program: B. Voc. (Logistics Management)			Semest	ter: II		
Course: Marketing Management & Customer Management			r Relationship	Course	e Code: VLM2	22202
Teaching Scheme				Evaluati	on Scheme	
Lecture	Hours	Credit	FA 1 FA 2 SA Tota			Total
3	3	3	25 25 50 100			

- 1. To outline key marketing concepts and its application of market management.
- 2. To identify factors and processes essential for designing marketing strategy
- 3. To analyze and examine the implementation of marketing concepts, CRM and strategy to Firms.

Course Outcomes:

After learning the course, students will be able to

- 1. Understand the concept of Marketing & Marketing Mix.
- 2. Understand depth knowledge about Place Mix(Physical Distribution) in the business organizations.
- 3. **Develop** in depth knowledge about Customer Relationship Marketing.
- 4. **Understand** the basic concepts of Customer relationship management
- **5. Apply** ECRM skills relevant to the corporate world.
- **6. Apply** relevant skills for operational Customer relationship management.

Detailed Syllabus				
Unit	Description	Duratio n (45 Hrs)		
1	Introduction to Marketing Management: Introduction to Marketing and Marketing Management, Marketing Concepts – Functions of Marketing - The Marketing environment. Marketing Mix Product Decisions - concept of a Product - Product mix decisions - Product Life Cycle strategies- Stages in Product Life Cycle.			
2	Place/Physical Distribution Mix: Meaning of Place/Physical Distribution Mix, Channels of Distribution, Types of Distribution, Level/Channel, factors which determine the choice of channels of distribution, Components, of Physical Distribution, Functions of Distribution Channel, Structure and Design of Marketing Channels Channel co-operation, conflict and competition—Retailers and wholesalers, Factors determining Inventory Level. Case Studies	8		
3	Customer Relationship Marketing (CRM): Concept and definition of CRM, four main stages of CRM - Customer acquisition, Customer retention, Customer expansion, Customer reactivation, Customer relationship marketing, Benefits of Customer Relationship Marketing, Types of customer relationships, factors that impact customer relationships Case studies	8		

4	Customer Relationship Management: Concept of Customer relationship Management, Need for Customer Relationship Management, Steps to Customer Relationship Management, Types of CRM, Key cross functional CRM processes. Acquiring customers, customer's loyalty and optimizing customer relationships, strategic frame work of CRM –origins, the role of CRM, Case studies	7
5	ECRM: Concept & Definition of Electronic Customer Relationship Management (ECRM), Features of ECRM, differences between CRM and ECRM, The benefits of ECRM, Different levels of ECRM. Tools used in ECRM.	7
6	IT System Front office and back office applications –sales force automation, call centre management, marketing automation campaign management, selecting a CRM solution. Organizing for CRM implementation, CRM change and project management. Establishing a CRM performance monitoring system –standards, metrics and key performance indicators, CRM budget and CRM return on investment.	7

Text Books:

- 1. Ballou, R.H., Business Logistics Management: Planning, Organizing, and Controllingthe Supply Chain, 4th Ed., Prentice Hall, 1998.
- 2. Bowersox, D.J. and D.J., Closs, Logistical Management: The Integrated Supply ChainProcess, McGraw Hill, 1996.
- 3. Philip Kotler, Jha& Koshy, Marketing Management, Pearson Education, New Delhi.

Reference Books:

- 1. V. S Ramaswami& S. Namakumary, *Marketing Management*, MacMillan Publishers, New Delhi.
- 2. Peelen E, D., Cutomer relationship management, Pearson Education 2010.

Program:	B. Voc. (Logistics Management)				Semester: II		
Course:	Business A				Code: VLM	22302	
Teaching Scheme				Eval	uation	n Scheme	
Lecture	Hours	Credit	FA 1 FA 2 SA Total				Total
2	2	2	20 20 40 80				80

- 1. To understand the basic accounting concepts and conventions of accounting.
- 2. To know how the transactions are entered in the Double entry book keeping system and various books of accounts.
- 3. To Prepare the final accounts of an organization and to examine the financial data.

Course Outcomes:

- 1. **Understand** the basic accounting concepts and Principles of Accounting.
- 2. **Develop** in depth knowledge in accounting, system for maintenance of accounts & the financial statements
- 3. **Apply** the various methods of depreciation in the real time experiences.
- **4.** Develop in depth knowledge regarding bill of exchange & CCD & its methods.

Detailed Syllabus:

Unit	Description	Duration (30 Hrs)
1.	Introduction of Accounting: Origin, Meaning, Definition, Need, Importance, Functions and Limitations of Accounting Accounting principles, Generally accepted accounting principles, Postulates of Accounting Double entry system.	
2.	Recording Transactions & Final accounts of Sole Traders: Journal, Ledger, Trial Balance, Cash Book (single column, double column and three column), Bank Reconciliation Statement. Trading Accounts, Profit and Loss Account and Balance Sheet.	
3.	Accounting for Depreciation Meaning, Importance, Methods of providing depreciation (straight time, diminishing, annuity), Reserves and Provisions.	8
4.	Bill of Exchange: Meaning – Definition – Importance, Promissory Note – Recording bill transaction (honoring, dishonoring, discounting) CCD Bill Raise – Verification of Bill –Analyzing Outstanding – Ledger Reconciliation - Follow-up for Payment – Payment Clearance.	8
	Total	30

Text Books:

- 1. Jonathan Berk, Peter DeMarzo, and Ashok Thamp., Financial Management.
- 2. I.M. Pandey, Financial Management, Vikas Publication.

Reference Books:

- 1. Khan and Jain TATA, Financial Management, McGraw-Hill
- 2. I.M. Pandey, Financial Management, Vikas Publication.
- 3. S. Sudarsana Reddy, Financial Management Principle and Practices.

4. Prasanna Chandra, Financial Management, TMH, 7th Edition.

Program:	B. Voc. (Logistic	s Management)		Seme	ster: II	
Course:	Soft Skills			Code	: VLM2240	2
Teaching Scheme				Evaluatio	n Scheme	
Lecture	Hours	Credit	FA 1 FA 2 TW To			Total
2	2	2	-	-	50	50

Objectives:

- 1. Analyze the significance of soft skills, particularly language proficiency, in personal and professional contexts, emphasizing their role in effective communication and interpersonal relationships.
- 2. Evaluate the distinction between soft skills and hard skills, discerning their respective importance and applicability in diverse situations.
- 3. Apply advanced listening strategies and techniques to enhance comprehension and communication effectiveness in various contexts.
- 4. Synthesize information from diverse texts through proficient reading skills, summarizing content accurately and concisely.
- 5. Create and deliver structured and engaging verbal presentations, utilizing effective speaking techniques to convey ideas convincingly and adaptively to different audiences

Course Outcomes:

After learning the course students will be able to;

- 1) **Understand** the importance of listening and reading skills
- 2) Write well developed paragraphs and instructions
- 3) **Develop** skills required for public speaking.
- 4) **Present** themselves effectively in different contexts

Detailed Syllabus:

	2 control of name of the control of			
Sr No	Description			
1	Introduction to Soft Skills with special reference to language skills			
1	Importance, need of soft skills, Soft Skills V/s hard skills			
	Listening Skills			
2	Importance, Types and techniques for effective listening.			
	Assignment:Listen and summarize the content.			
	Reading Skills			
3	Tips for effective reading, Types of reading.			
	Assignment: Read the given article/text and summarize in your own words			
	Speaking Skills 1 – Self Introductions			
4	Tips for effective public speaking			
	Assignment: Self introductions and describing job profiles.			
5	Speaking Skills 2 – Group Discussions			
3	Assignment: Dos and Don'ts of a Group Discussion			
	Speaking Skills 3 – Presentations			
6	Assignment: Presenting ideas and thoughts before an audience.			

	Communication Skills
7	Types of communication and barriers to communication.
	Assignment: Role play
	Time Management
	Time Management prioritizing, urgency and importance, categorizing tasks as high, medium,
0	or low priority, developing a structured daily, weekly, or monthly schedule to manage time
8	efficiently.
	Assignment: Create a visual schedule or checklist for daily tasks, including schoolwork,
	chores, and free time.
	Problem-Solving Skills
9	Basics of problem solving, critical thinking, brainstorm ideas and try different approaches to
	find solutions, Steps in problem solving.

Instructions:

- First lab activity is mandatory
- Any six assignments other than first lab activity to be conducted

References:

- 1. Rao Prasad N D V, English Grammar and Composition, S. Chand and Co. Pvt.Ltd, 2017.
- 2. Salaria R.S., and Kumar K.B., Effective Communication Skills, Khanna book publishing co. (P)Ltd, 2020.
- 3. Patil Z.N., Walke B., Thorat A., and Merchant Z., English For Practical Purposes, Macmillan Publication, 2016.
- 4. Mishra S., and Muralikrishna C., Communication Skills for Engineers, Pearson India Publication, 2011.
- 5. Bhatia V., Business Communication, Khanna book publishing co. (P)Ltd, 2013.

Program: B. Voc. (Logistics Management)				Semes	ster: II		
Course: IT Tools I					Code:	VLM22502	2
Teaching So		Evaluation Scheme					
Practical Hours Credit			FA 1	FA	2	TW	Total
2	2	1	-	-		50	50

- 1. To understand use of computer-based system in communication and fundamentals of Internet
- 2. To learn and understand MS office world using simple tools.

Course Outcomes: After learning the course, students will be able to

- 1. Demonstrate the computer components and how they are used for communication and networking.
- 2. Comprehend the use of MS office and Internet Communication

Guideline:

Total: 6 experiments/assignments to be conducted

Detailed Syllabus:

Sr No	Description
1	Study of Basic Computer fundamentals.
2	Demonstrate and Study of different types of computer networks and internet.
3	Create and manage professional documents using MS word.
4	Create and manage data using MS excel.
5	Create and manage presentation using power point.
6	Study of Internet Communication: Email, Social Media, etc.

Text Books:

- 1. Kumar B., *Mastering MS Office: Concise Handbook with screenshots*, V&S Publishers, 2017.
- 2. Orchids, Microsoft Office 2007, MS Office Series, 2018
- 3. Jain S., Kartika Geeta, *Microsoft Office 2010 Training Guide*, BPB Publications 2015.
- 4. Kurose James F., and Ross Keith W., *A Computer Networking: A top-down approach featuring the internet*, Pearson Publication, 2017.
- 5. TharejaReema, Fundamentals of Computers, Oxford University Press, 2019.

Reference Books:

1. Ed Tittel, and Muthukumaran B., *Computer Networking*, Schaum's Outlines, TATA Mcgraw Hill Publications, 2006.

2. Peter Norton, Introduction to Computers, Tata Mcgraw Hill Publication, 2005.

Program: B.	B. Voc. (Logistics Management) Semester: II					
Course: Or	Job Training		Code: V	LM22602		
Teaching Scheme	Evaluation Scheme					
Practical	Hours	Credit	TW	PR	OR	Total
20	20	10	-	200	-	200

Course Objectives:

- 1. To expose students to the industry environment and enhance their technical skills while working in Private/public enterprises, government agencies, research labs, or any other organized technical club.
- 2. To apply knowledge and abilities relevant to engineering technology concepts, principles, and techniques to real-life industrial work/projects.
- **3.** To develop higher-order thinking skills to work with people of diverse backgrounds and cultures and work effectively within cross-disciplined environments.

Course Outcomes:

On the completion of the OJT, students will be able to –

- 1. To apply theoretical knowledge in real-life applications with new perspectives to problem-solving.
- 2. To practice communication and teamwork skills while building a professional network of prospective employment.
- 3. To write technical reports and document the project outcomes along with enhancing the technical presentations skills

Guidelines: Students will take on-the-job training in the industry in the domain of Logistics as per the following job description and personal attributes.

Job Role: Warehouse Supervisor

Job Description

The individual supervises day-to-day operations at a warehouse by allocating resources,
managing activities, and coordinating with clients and regulatory bodies. S/he is also
responsible for measuring and reporting the effectiveness of warehousing activities and
employees' performance.

Personal Attributes

The job holder should be physically and medically fit to undertake a warehouse operation which includes long-standing hours and occasional material movement. S/he should be observant, diligent, and have the good mathematical ability. S/he should have good team management skills and should communicate effectively in English and vernacular language.

Course Syllabus Semester-III

Program: B. Voc. (Logistics Management)					Semester	: III
Course:Transport			Code: VI	LM23103		
Teac	Evaluation Scheme					
Lecture	Hours	Credit	FA 1	FA 2	SA	Total
3	3	3	25	25	50	100

- 1. This course will help the students to gain a clear understanding of nature and mechanism of the transportation in Logistics industry
- 2. The students will understand the importance/ value of transportation planning in Logistics industry
- 3. The students will be able to employ and apply the different skills on how to manage a transportation business
- 4. The students will be able to respond critically by suggesting possible course of actions through understanding various issues and problems in the field of transportation.

Course outcomes:

After learning the course, students will be able to:

- 1. Explain the concept Transport Management.
- 2. **Explain** the Basics of Multimodal Transport.
- 3. Apply specialized knowledge for Transportation planning
- 4. **Apply** specialized knowledge of Transportation Costing and Taxation.
- 5. Classify the Transportation Documentation in Logistics Management
- 6. **Analyze** the Administration and Control in Transportation

Detailed Syllabus:

Unit	Description	Duration (45Hrs)
1	Introduction to Transportation Management: Transportation- meaning, operational characteristics of transport, Transport functions and systems. Challenges faced by Indian transport system, Modes of transport- air, water, land and others,	7
	Elements and components of transport, Transport Units.	

	Basics of Multimodal Transport	
2	Introduction to Multimodal Transport, Carriage By Air, Carriage By Sea, Carriage By Road, Carriage By Rail, Types of Vessels Operators (Vessel and other), Shipping Intermediaries and Formalities	7
3	Transportation Planning- Importance Methods, Steps,	7
	Interventions, Policy instrument transportation planning process,	,
	metropolitan planning. Comprehensive Transport Planning-	
	Factors required for planning process (Issues, Current Practices,	
	and future recommendations), Integrated public transport planning.	
	Transportation Principles & participants, Transport Forecasting.	
	Transportation Costing and Taxation:	
	Transportation costing and pricing- concepts, key cost driver,	
	modal rate development, current issues and practices. Profit and	
4	Gains from Business and Profession, E way Bill Concept for road Transportation.	8
	Transportation Documentation domestic and international.	
	Transportation performance analysis- Factors effecting	
5	transportation management, main key performance indicators. Performance by transport mode.	8
6	Administration and Control:	8
_	Organization in transport sector - National and International levels,	
	Functions and Role.	
	Transport Regulations- Need, Importance and Benefits,	
	Environment, Smart growth & sustainability, Energy, Technology,	
	Economic & financial issues and other, New Development in transport sector.	

Text Books:

1. Prof.M. Kupade, Transport Management. NiraliPrakashan

Reference Books:

- 1. Prof. S.K. Sarangi, Transportation Management, Himalaya Publication House.
- 2. R.Khan, Transport Management, Transport Himalaya Publishing House, 1980
- 3. R.R. Khan, Research in Transport; School of Management Studies', Mumbai, 2013.

Program: B. Voc. (Logistics Management)					Semester: I	II
Course:	Course: Sales and Distribution Management					123203
	Teaching Scheme	Evaluation Scheme				
Lecture	Hours	Credit	FA 1	FA 2	SA	Total
3	3	3	25	25	50	100

- 1. To develop an understanding of concepts, which are helpful in designing sound programs for organizing and managing the sales force and enhance their productivity.
- 2. To give practice of winning salesmanship.
- 3. To explain how to design, develop and manage a distribution channel that delivers business goals
- 4. To expose the learner to the function of modern distribution/fulfillment centers and the practice of Omni channels.

Course outcomes:

After learning the course, students will be able to:

- 1. Explain the concept of Sales Management.
- 2. **Explain** the concept of Sales Force Management and Personal Selling.
- 3. **Explain** the concept of Distribution Management.
- 4. Apply specialized knowledge for Channel Management Decisions & Franchising
- 5. **Apply**specialized knowledge of Wholesaling and Retailing Management.
- 6. Apply various tools of Channel Information System.

Detailed Syllabus:

Unit	Description	Duration (45Hrs)
1	Introduction to Sales Management: Meaning, Evolution, Nature and importance of sales management, Strategic role of sales management, Objective and functions of sales management, Emerging trends in Sales Management, Skills required for Sales Managers.	7
2	Organizing and Driving Sales Efforts: Personal Selling Process, Kind and Size of the Sales Force, Sales Organization Structures, Sales Territories and Quotas, Sales Reports, Sales Audits, Sales Budgets.	7
3	Introduction to Distribution Management: Concept and Definition of Distribution Management, need and scope of distribution channels; Marketing channels strategy; Levels of channels; Designing Channels; Selection and Recruitment of Channel Partners; Channel Conflicts; Techniques to resolve channel conflicts. Case Study: Understand in detail unique distribution projects like Tata Motors, HUL project Shakti.	7

	4	Channel Management Decisions and Franchising: Channel Management Decisions; Channel policies, Concept of Vertical Marketing System (VMS) and Horizontal Marketing System (HMS). Franchising: Significance and importance of Franchisee in Channel Decision; Advantages of Franchisee; Process of appointment of Franchisee; Franchiser- Franchisee relationship.	8
	5	Wholesaling and Retailing Management:	8
		Wholesaling: Meaning, functions, classification of wholesalers, Major wholesaling activities and decisions.	
		Retailing: Meaning, Types of Retailers and retailing formats, Retail strategies, E-	
		Tailing: Structure and Developments in E-tailing, Advantages & Disadvantages of E-Tailing.	
		Activity: Visit wholesalers and understand their territorial plans.	
		Visit different retail stores and analyze point of sale displays.	
Ī	6	Channel Information System:	8
		Meaning, purpose, Elements of Channel Information System, Developing channel information system, Channel performance evaluation criteria.	
		• • • •	

Text Books:

1. Krishna K Havaldar& Vasant M Cavale: Sales and Distribution Management, 2e, McGrawH, 2011

Reference Books:

- 1. Sales Management: Decisions, Strategies and Cases, Still, Cundiff&Govoni, Pearson Education.
- 2. Sales and distribution Management by Tapan K Panda, Sunil Sahadev, Oxford University Press.
- 3. Sales and distribution Management by Ramendra Singh, Vikas Publishing

Program: B. Voc. (Logistics Management)					Semester:	: III
Course:	Course: IT Tools II					LM23303
	Teaching Scheme	Evaluation Scheme				
Lecture Hours Credit			FA 1	FA 2	SA	Total
2	2	2	20	20	40	80

- 1. To impart advanced skills in using word processing and spreadsheet software for complex tasks and automation.
- 2. To introduce with digital multimedia tools for image, audio, video editing, and screencasting.

Course outcomes:

After learning the course, students will be able to

- 1. Use word processors to Create and manage long documents with tables of contents, indexing, cross-references, and footnotes.
- 2. Utilize advanced spreadsheet features like VLOOKUP, nested functions, data validation, scenarios, and basic macros/VBA.
- 3. Perform basic image editing, audio/video editing, screen recording, and use online multimedia tools
- 4. Collaborate effectively using cloud storage, file sharing, online office suites, and project management tools.

Detailed Syllabus:

Unit	Description	Duration (30 Hrs)
1	Advanced Word Processing Working with long documents (Table of contents, indexing, cross-references, footnotes), Using mail merge for bulk emails/letters, collaborating on documents (Track changes, comments), Protecting and securing documents	8
2	Advanced Spreadsheet Features Advanced functions (VLOOKUP, IF, Nested IFs, etc.), Data validation and data entry forms, Scenarios and goal seek analysis, Introduction to macros and VBA, Data visualisation	8
3	Digital Multimedia Image editing basics, Audio/video editing introduction, Screen recording and screencasting, Online multimedia tools	8
4	Collaboration and Cloud Tools Cloud storage (Google Drive, OneDrive), File sharing and collaboration, Online office suites, Introduction to project management tools(JIRA, Trello), Timesheet management, AI-based automation	6

Text Books:

- 1. Shelly Cashman Series. 2019. Office 365 & Office 2019 Introductory, 1st Edition, Cengage Learning, Boston.
- 2. Jennifer Duffy. 2018. Multimedia Foundations: Core Concepts for Digital Design, 2nd Edition, Focal Press, Burlington.

Reference Books:

1. Joan Lambert and Joyce Cox. 2013. Microsoft Word 2013 Step by Step, Microsoft Press, Redmond

Pimpri Chinchwad College of Engineering

- 2. Curtis Frye. 2013. Microsoft Excel 2013 Step by Step, Microsoft Press, Redmond.
- 3. David W. Beskeen, et al. 2015. Microsoft Office 2016 Illustrated Introductory, First Course, Cengage Learning, Boston.
- 4. Katherine Murray. 2018. Modern Desktop Environments for Virtual, Cloud, and Mobile Users, Pearson Education, London.

Program:	B. Voc. (Logistics Management)				Semester: III	
Course:	Business Communication - I				Code: VLM23403	
Teaching Scheme			Evaluation S	Scheme		
Practical Hours Credit FA 1 FA 2			TW	Total		
2	2	1	50 50			

- 1. **Analyze** the role and significance of business communication in professional and personal contexts.
- 2. **Evaluate** various types of communication and identify principles and barriers affecting effective communication.
- 3. **Demonstrate** effective interpersonal communication skills including active listening, empathy, and conflict resolution.
- 4. **Apply** non-verbal communication techniques, including body language, to enhance communication effectiveness in business scenarios.
- 5. **Develop** proficiency in professional business correspondence, including writing formal letters and resumes, and demonstrate persuasive communication skills in mock business meetings.

Course Outcomes:

After learning the course students will be able to;

- 1. **Apply** knowledge of fundamentals of communication in given situations
- 2. Communicate effectively using non-verbal codes
- 3. **Write** professional letters
- 4. **Demonstrate** business and social skills.

Detailed Syllabus:

Assignment No.	Description			
	Role and importance of Business Communication			
1	Introduction to the art of Business Communication, Role and importance in			
1	professional and personal life, Ice-breaking activities for various scenarios,			
	Professional Greetings, Making & Responding to Requests.			
	Introduction to Business Communication			
	Types of Communication, Principles and Barriers to Communication, Overcoming			
2	Barriers to communication			
	Assignment: Explain different types of communication. Provide examples of barriers			
	to communication from your own experiences and suggest ways to overcome it.			
	Talking about opinions and perceptions			
	Get recognized in the crowd: Introducing self in business environment Understand			
2	purpose of introduction, tailor self-introduction for gaining attention, find out USP			
3	(individuality, skills etc) and emphasize, assertive and expressive, Express opinions			
	confidently in business environment, Speak with purpose, use persuasive			
	communication.			
4	Non-Verbal communication &Body Language			

	Importance of Non-Verbal Communication, Non-Verbal Codes, Kinesics, Haptics,
	Proxemics, Chronemics, Para-language, Artifacts
	Assignment: Case Study of the role of body languagein a givensituation
	Interpersonal Communication Skills
5	Developing active listening and empathy skills in business interactions, Managing conflict and difficult conversations in the workplace
	Business Correspondence
6	Art of writing Business Letters (Understand different formats, writing with purpose, difference between day-to-day language and formal language)Write a professional resume or CV. Use a professional format. Highlight skills, experiences, and qualifications relevant to the target job or industry.
	Assignment: Developing formal business letters for different purposes
	Mock Business Meetings
7	Self- Grooming, Art of persuasion, Techniques of Short Speech & Effective Delivery of Extempore & Debate.
	Professional Etiquette and Networking
8	Understanding and practicing professional etiquette in various business settings, Building and maintaining professional relationships through networking.
	Emotional & Social Skills
9	Situational Conversations & Rapport Building through Role Play, Emotional Intelligence: Testing and Improving EI Assignment: Provide step by step solutions in the form of practical examples for the given case studies.
H	

Instructions:

- All assignments are suggestive however, course teacher may devise another assignments to evaluate students
- First lab activity is mandatory

References:

- 1. Rao Prasad N D V, English Grammar and Composition, S. Chand and Co. Pvt.Ltd, 2017.
- 2. Salaria R.S., and Kumar K.B., Effective Communication Skills, Khanna book publishing co. (P)Ltd, 2020.
- Patil Z.N., Walke B., Thorat A., and Merchant Z., English For Practical Purposes, Macmillan Publication, 2016.
- 4. Mishra S., and Muralikrishna C., Communication Skills for Engineers, Pearson India Publication, 2011
- **5.** Bhatia V., Business Communication, Khanna book publishing co. (P)Ltd, 2013.

Program: B. Voc. (Logistics Management)				Semester: III		
Course: Health and Wellness II					Code: VLN	M23503
7	Геаching Scheme	Evaluation Scheme				
Practical Hours Credit			FA 1	FA 2	TW	Total
2	2	1	50 50			

Objectives:

- 1. Prepare graduates to become wellness, health, fitness, nutrition education or foodservice professionals.
- 2. Prepare students for a variety of careers in wellness, fitness, food and nutrition education and food service.

Course Outcomes:

After learning the course students will be able to;

- 1. Describe the principles of health and wellness from a multidimensional and interdisciplinary perspective.
- 2. Develop a Positive and Optimistic approach.

Detailed Syllabus:

Assignment No.	Description
1	Positive psychology: what do you understand by positive psychology? What are benefits of positive psychology?
2	Identifying strengths: what do you understand by strengths? Classification of strengths, developmental assests. Identifying your personal strengths
3	Living well at every stage: what is resilience? positive youth development, Life tasks of adulthood.
4	Self-efficacy: Definition, the neurobiology of self-efficacy, self-efficacy's influence in life arenas.
5	Mnemonics: method of loci, peg word system, key word method, Recall of Name, Recall of words.
6	Optimism: learned optimism -Seligman, primary prevention, primary enhancement.

Instructions:

• Any 5 practical assignments to be conducted.

- 1. W. Weiten, and M. A. Lloyd, Psychology Applied to Modern Life: Adjustment in the 21st Century, Wadsworth Publishing, 2007
- 2. R. Harington, Stress, Health and well-being: Thriving in the 21st century, Wadsworth Publishing, 2013.
- 3. Boniwell, Positive psychology in a nutshell, McGraw-Hill Education, 2012.
- 4. S. Lyubomirsky, The how of happiness, Penguine Press, 2008.

Program:	B. Voc. (Logistics Management)				Semester:III		
Course:	Internship III: On Job Training (LSC/Q0102) Code: VLM23603						
Teaching Scheme				Eva	luation Sc	heme	
Practical Hours Credit		TW	PR	OR	Total		
20		20	10	-	200	-	200

- 1. To expose students to the industry environment and enhance their technical skills while working in Private/public enterprises, government agencies, research labs, or any other organized technical club.
- 2. To apply knowledge and abilities relevant to engineering technology concepts, principles, and techniques to real-life industrial work/projects.
- 3. To develop higher-order thinking skills to work with people of diverse backgrounds and cultures and work effectively within cross-disciplined environments.

Course Outcomes: After learning the course, students will be able to

- 1. **Apply** the theoretical knowledge in real-life applications with new perspectives to problem-solving.
- 2. **Practice** communication and teamwork skills while building a professional network of prospective employment.
- 3. **Write** technical reports and document the project outcomes along with enhancing the technical presentations Skills

Guidelines: Students will take on-the-job training in the industry in the domain of Logistics as per the following job description.

Job Role: Warehouse Manager

Job Description

The individual supervises day-to-day operations at a warehouse by allocating resources, managing activities, and coordinating with clients and regulatory bodies. He/ She is also responsible for measuring and reporting the effectiveness of warehousing activities and employees' performance

Course Syllabus Semester-IV

Program: B.Voc. (Logistics Management)	Semester: IV
Course:Management Information System in Logistics & Supply chain Management	Code: VLM24104

Teaching Scheme				Evaluation	on Scheme	
Lecture	Hours	Credit	FA 1 FA 2 SA Total			
2	2	2	20	20	40	80

- 1. To develop competencies and knowledge of students to become MIS for logistics professionals.
- 2. To orient students in the field of Logistics.
- 3. To help Students to understand MIS for Logistics.

Course outcomes:

After learning the course, students will be able to:

- 1. Explain the concept of Management Information System
- 2. **Demonstrate** an understanding about the Functional Areas of MIS in SCM.
- 3. **Examine** the impact of business process management (BPM) on SCM.
- 4. **Differentiate** the Compliance System of MIS in SCM.

Detailed Syllabus:

Unit	Description	Duration (30Hrs)
	Introduction to MIS - IT and Management opportunities and challenges,	
	Information Management System in Logistics Management, ERP Modules	
1	and Services, Virtualization and Virtual Machines with special reference to	8
_	Logistics and Supply Chain Management.	b
	Functional Area in SCM:	
	Information Technology for supply chain management, Bar Coding and	
2	Scanning. MIS for Inventory, MIS for Logistics, Fleet Management	8
	Information System.	0
	Business Process Management : - Software & Applications for Management	7
3	(Business software tools), Support system. ERP modules – Customer	
	Relationship Management, Supplier Relationship Management, Order	
	Fulfillment, Return Management, Accounting and Audit Management.	
	Compliance Systems: Collaborative Planning, Forecasting, and	7
4	Replenishment system (CPFR), Performance Management: Data visualization,	
-	and Mobile Application System.	
	Total	30

Text Books:

1. EFF, O.Z. (2003) Management Information Systems. Vikas Publishing House Pvt. Ltd.: New Delhi.

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

New Delhi.

3. KENNETH, C. L., & JANEP, L. (2001) Essentials of MIS. Prentice Hall India: New Delhi.

Program:	B.Voc. (Logistics Management)	Semester: IV
i i ogi am.	D. voc. (Logistics Management)	Beillester. I v

Code: VLM24105 Course: Green Logistics

Teaching Scheme				Evaluation	on Scheme	
Lecture	Hours	Credit	FA 1 FA 2 SA Tot			
2	2	2	20	20	40	80

Course Objectives:

- To help the students to develop a knowledge on Green Logistics Fundamentals To help the students to develop a knowledge Reverse logistics and their elemental Operations.
- 3. To create awareness Measurement of Carbon Footprint.

Course outcomes:

After learning the course, students will be able to:

- **Explain** the fundamentals of environmental concepts, its importance and components
- **Identify** the processes of green logistics and its importance for sustainable operation.
- **Identify** the processes involved in Green logistics in Logistics Management.
- **Apply** the Low Carbon Action Plan for Urban Freight (LCAPUF).

Detailed Syllabus:

Unit	Description	Duration (30Hrs)
	The Environmental Perspective: Fundamentals of environmental aspects in	
	logistics, concepts and the principles needed to convert a process in a green	
1	activity, having special emphasis on concepts such as environmental cycles of carbon.	7
	Green Logistics :	
	Concept and definition of green logistics, objectives of green logistics	
2	components of Green Logistics, Green Logistics Strategies, challenges facing	7
_	green logistics today, Towards Green logistics.	,
	Green Logistics in Vehicle Management:	
	Concept of Green Logistics in Vehicle Management, Optimize transport Fleet	
	Management through Green Logistics, Eco friendly criteria in your	
3	procurement of Green logistics.	8
	Eco-logistics: Low Carbon Freight: for Urban Freight:	
	What is a Low Carbon Action Plan for Urban Freight (LCAPUF), The Eco-	
4	Logistics Principles, Urban Freight Operations, Urban Freight Stakeholders,	8
	Barriers for Sustainable Urban Freight, the recovery, recycling, and reuse	
	processes.	
	Total	30

Text Books:

1. E. Gordon, K. Natarajan, Entrepreneurship Development, Himalaya Publishing, 2017

Reference Books:

1. Michael Browne. Green Logistics: Improving the Environmental Sustainability of

Logistics, Kogan Page Publishe

2. Venkatesh Ganapathy, Introduction to Green Supply Chain Management, Professional eBook

3. Hsiao-Fan Wang; Surendra M. Gupta. *Green Supply Chain* Management: Product Life Cycle Approach, McGraw-Hill Education, LLC

Program:	: B. Voc. (Logistics Management)				Semester: IV		
Course:	Entrepreneurship Development				Code: VL	M24205	
	Teaching Schem	Evaluation Scheme					
Lecture	Hours	Credit	FA 1 FA 2 SA Total				
2	2	2	20 20 40 80				

Course Objectives:

- 1. To help the students to develop a knowledge on basic concepts of entrepreneurship.
- 2. To create awareness preparation of entrepreneurship methodology.
- 3. To help the students know about effective management of entrepreneurship in small scale Industries.

Course outcomes:

After learning the course, students will be able to:

- 1. **Explain** the entrepreneurial perspective for business growth.
- 2. **Identify** the business opportunities and idea generation methods.
- 3. **Analyze** the business environment for start up a business.
- 4. **Analyze** the various factors associated for the growth of new business ventures.

Detailed Syllabus:

Unit	Description	Duration (30 Hrs)
1	The Entrepreneurial Perspective: Concept and Definition of an Entrepreneur, Why to become an entrepreneur, Characteristics of an Entrepreneur, Functions of an Entrepreneur, Types of Entrepreneurs, Distinction between Entrepreneur and Manager The entrepreneurial decision process, Future of entrepreneurs. Case Study on Successful Entrepreneur.	7
2	Business Opportunity & Idea Generation: Concept of Business Opportunity, Business Opportunities Identification Process, Concept of Business Idea, Sources of new Idea Generation, Creative problem solving, The Business plan as an entrepreneurial tool, Elements of Business Plan, Creating a Business Plan. Class Activities on Idea Generation. Assignment on Business Plan Drafting.	7
3	Creating & Starting Ventures: Meaning of Startup, Startup Policy, Startup opportunities, Registration and Legal Process of Startups, Business Patents, Trademarks, Copy rights, Licensing, Government Initiatives & Schemes. SWOT Analysis, PESTLE Analysis, Case Study on SWOT & PESTLE Analysis.	8
4	Managing and Growing a New Business Venture: Attractiveness of a new entry opportunity- Entry strategy for new entry exploitation- risk reduction strategies for new entry, overcoming pressures on existing financial resources, human resources, management of employees and entrepreneur's time, Sustaining a Business during turbulence. Case Study on Successful Business Ventures which survived Turbulence.	8

Total	30

Text Books:

1. E. Gordon, K. Natarajan, Entrepreneurship Development, Himalaya Publishing, 2017

- 1. Khanka S.S., Entrepreneurial Development, S.Chand Publication, 2013.
- 2. Charantimath Poornima M., *Entrepreneurship Development and small business management*, Pearson Publication, 2018.
- 3. Arya Kumar, *Entrepreneurship*, Pearson Publication, 2012.

Program: B. Voc. (Logistics Management)				Semester: IV		
Course:	Business Communication - II				Code: VLM24404	
Teaching Scheme			Evaluation Scheme			
Practical Hours Credit			FA 1	FA 2	TW	Total
2	2	1 50 5				

- 1. Analyze effective strategies for handling customer inquiries and complaints in a timely and courteous manner to maintain customer satisfaction.
- 2. Evaluate various digital and visual communication tools for their suitability in business contexts, and apply them effectively to enhance communication impact.
- 3. Explore the concept of social networking for professional purposes, including the creation of a comprehensive LinkedIn profile, to expand professional connections and opportunities.
- 4. Develop interview skills through research, preparation, and practice, including crafting tailored responses to common interview questions and formulating insightful questions for the interviewer.
- 5. Apply storytelling techniques to craft compelling narratives for business communication, and understand the importance and structure of common business documents in various contexts, including negotiation simulations and business plan presentations.

Course Outcomes:

After learning the course students will be able to;

- 1. **Demonstrate** the skills of handling customer and clients
- 2. **Use** digital tools effectively to present or communicate as per situation
- 3. **Appear** confidently for business meetings and interviews
- 4. **Write** professional drafts and proposals.

Detailed Syllabus:

Assignment No.	Description							
1	Introduction							
	Introduction to Business Communication and its importance.							
	Handling Customer Inquiries and Complaints							
	Strategies for responding to customer inquiries promptly and courteously, Techniques							
2	for addressing customer complaints effectively to maintain customer satisfaction							
	Assignment: Develop a comprehensive response plan for handling customer inquiries							
	and complaints, focusing on promptness, courtesy, and satisfaction maintenance.							
	Digital and Visual Communication Tools							
2	Utilizing digital tools and platforms for effective business communication.							
3	Assignment: Create a visually engaging presentation or document using digital tools,							
	demonstrating effective communication techniques to enhance impact.							
	Social Networking							
4	Content: What is Social networking; networking through social media platforms like							
	LinkedIn, Indeed, for professional purposes.							

	<u>Assignment</u> : Create and launch a full-fledged LinkedIn profile with all relevant details. Submit printouts of LinkedIn Bio, Qualifications and Other important sections.
5	Interview Skills Researching the company and role, practicing responses to common questions, and preparing questions to ask the interviewer. Assignment: Develop a set of interview questions tailored to a specific job role, considering both traditional and behavioral-based questions.
	Business Storytelling
6	Crafting compelling stories and using storytelling techniques for business communication.
7	Understanding Business Documents
,	Introduction to common business documents (e.g., invoices, receipts).
8	Business Plan: Writing & Presentation Content: Elevator pitch, Business plan proposal, presenting a business proposal Assignment: Create a basic business plan proposal and present it in the form of an Elevator pitch.
	Advanced Business Writing Skills
9	Techniques for writing business documents, such as proposals, executive summaries, and business plans, Incorporating data and research into written communication effectively Assignment: Create proposal for business purpose in a professional format.
	1 1 1 1

Instructions:

- All assignments are suggestive however; course teacher may devise other assignments to evaluate students.
- Any five assignments are mandatory
- 1. References:
- 2. Rao Prasad N D V, English Grammar and Composition, S. Chand and Co. Pvt. Ltd, 2017.
- 3. Salaria R.S., and Kumar K.B., *Effective Communication Skills*, Khanna book publishing co. (P)Ltd, 2020.
- 4. Patil Z.N., Walke B., Thorat A., and Merchant Z., *English For Practical Purposes*, Macmillan Publication,
- 5. 2016.
- 6. Mishra S., and Muralikrishna C., *Communication Skills for Engineers*, Pearson India Publication, 2011.
- 7. Bhatia V., Business Communication, Khanna book publishing co. (P)Ltd, 2013.

Program:	Program: B. Voc. Logistics Management				Semester: IV	
Course: ERP in Logistics Management					Code:VLN	124504
Teaching Scheme			Evaluation Scheme			
Practical	Hours	Credit	FA 1 FA 2 TW Total			Total
2	2	1	50 50			

- 1. Offer seamless workflows during consolidation, dispatch, distribution, and delivery.
- 2. Integrate global multi-mode and multi-route transportation functionalities.
- 3. Leverage automation for warehouse operations, synchronized shipping, and transportation
- 4. Management of multi-supply chain partnerships and collaborations

CourseOutcomes:

Afterlearningthecourse, the students will be able to:

- 1. Tracks orders from receipt to delivery. Barcode generation and scanning
- 2. **Deliver** a rapid return on investment for businesses that operates their own warehouses.
- 3. Maintain inventory control by tracking item quantities and location
- 4. **Manage** the fleet from a centralized platform for effectively delivering the logistics operations.
- 5. **Track** each step in the movement of supplies and goods throughout the supply chain.
- 6. **Auto-tracking** capabilities of goods before, during storage, and after transfer.

Guideline: Total: Any 6 practical assignments to be conducted.

Detailed Sylla	bus:
Assignment	Description
No.	Any Five experiments from assignments 1 to 9.
	Introduction to ERP with over view of Supply Chain Management:
1	Managing activities like arrival, departure
	 No-claim of goods, returns of Goods, Quantity mismatches
	 Resource planning, carrier schedules, good consolidation, segregation.
	Order Management:
2	To capture, price and configure orders through direct order entry.
	Omni channel Order Management.Channel Revenue Management
	Logistics Network Modeling:
3	Adding a customer or supplier to an existing network
	Manage the changing volumes, capacity and rates to transportation operations.
	Determining the best course of action when an unplanned disruption occurs
	Logistics Network Modeling- Operational Planning
4	Determine transportation requirements from simple point-to-point
	Determine complex multimodal, multileg, and cross-dock operations.
	 Plan inbound, outbound, and inter facility orders by collaborating with logistics service providers and shipping partners
_	Warehouse Management:
5	Material and inventory tracking
	Third-party logistics (3PL)

	T / 34
6	 Inventory Management: Real-time visibility into inventory across internal and external locations, including goods in transit. Manage transactional flows; create the required documentation to enable material transfers between internal locations and third-party providers. Inventory Management Supply Chain Financial Orchestration: financial flows for internal trade between parties independently from the physical movement of goods
	Transportation Management: (Sales)
7	 Freight Rate Master: Client specific rates, General rates Freight Quotation Sale Freight Order Sale For Specific Client, Daily Bill in case of Stock Yard, Single Bill against multi LR in case of wagon, Supplementary Invoice for difference Wt. (in case of Ideal Wt) For Transporter - Transport Payment
	Fleet Management:
8	 Loading & Unloading Instruction: Manual, Through Excel File (for SAP/ Oracle Apps) uploads / downloads. Based on Customer Instructions and Billing Data, LR Vehicle Reporting Lorry Receipt Entry/ LR Slip Generation: Manual Through Excel File (for SAP/ Oracle Apps) upload/ download for Based on Customer, Instructions and Billing Data, LR.
9	Data base Planning Management:
	 Track LR documents Proof of Deliver Vehicle Management System Trip Performance sheet Accurately estimate total landed costs Gain financial visibility into your extended supply chain costs including transportation and handling fees, insurance, duties, and taxes
ReferenceBoo	ke•

ReferenceBooks:

- 1. Martin Murray, Discover Logistics with SAP, EPUB, Edition 2014.
- 2. Anthony M. Pagano, Matthew Liotine, Technology in Supply Chain Management and Logistics, Elsevier.

e-sources :

https://www.dckap.com/blog/erp-in-supply-chain-management/

https://www.zorp.one/blog/erp-for-logistics-and-transportation

https://dynamics.microsoft.com/en-in/erp/erp-supply-chain-management/

https://ecampusontario.pressbooks.pub/logistics001oerfc/chapter/chapter-2/

Program: B. Voc. (Logistics Management)				Semester: IV		
Course: M	rse: Mini Project Cod				M24604	
Teaching Scheme Evaluation Scheme						
Practical Hours Credit			TW	PR	OR	Total
4	4	-	50	-	50	

- 1. To develop an understanding the basic concepts and role of Management related activities in the Logistics sector.
- 2. To understand how Warehouse and Inventory Management play an important role in redefining value chain excellence of Firms.
- 3. To develop analytical and critical understanding & skills for planning, designing and operations Management in the Logistics and its related fields.

Course outcomes:

After learning the course, students will be able to:

- 1. Explain the fundamentals Warehouse and Inventory Management
- 2. **Apply** various techniques of inventory management and their practical situations.
- 3. **Analyze d**ecisions related the Logistics and Supply Chain Management.

Guidelines to the Students:

- 1. Students will take Mini Project in the industry in the domain of Logistics Management, Supply Chain Management or Warehouse and Inventory Management.
- 2. Project in Logistics & Supply Chain Management concerned with the efficient flow of materials, products, and information within and among organizations.
- 3. Supply chain management involves the integration of business processes across organizations, from material sources and suppliers through manufacturing and processing to the final customer.

Detailed Syllabus:

The project provides students with the core knowledge related to a wide variety of logistics and supply chain activities, including demand planning and control, transportation management, warehouse management, inventory control, material handling, product and service support, information technology, and strategic supply chain management.

The project takes a balanced approach to Logistics and Supply chain education. This training builds in Logistics and Supply Chain Management generates an understanding of how logistics and supply chain management are applied in various stages through interactions with different retail, production and manufacturing industrial experts.

Program:	B. Voc. (Logistics Management)				Semester:IV			
Course:	Internship III: On Job Training (LSC/Q0102) Code: VLM24605							
	Teaching Schen	ne e	Eva	luation Sc	heme			
Practical Hours Credit			TW	PR	OR	Total		
20 20 10 - 200 -				-	200			

- 1. To expose students to the industry environment and enhance their technical skills while working in Private/public enterprises, government agencies, research labs, or any other organized technical club.
- 2. To apply knowledge and abilities relevant to engineering technology concepts, principles, and techniques to real-life industrial work/projects.
- 3. To develop higher-order thinking skills to work with people of diverse backgrounds and cultures and work effectively within cross-disciplined environments.

Course Outcomes: After learning the course, students will be able to

- 1. **Apply** the theoretical knowledge in real-life applications with new perspectives to problem-solving.
- 2. **Practice** communication and teamwork skills while building a professional network of prospective employment.
- **3. Write** technical reports and document the project outcomes along with enhancing the technical presentations Skills

Guidelines:Students will take on-the-job training in the industry in the domain of Logistics as per the following job description.

Job Role: Warehouse Manager

Job Description

The individual supervises day-to-day operations at a warehouse by allocating resources, managing activities, and coordinating with clients and regulatory bodies. He/ She is also responsible for measuring and reporting the effectiveness of warehousing activities and employees' performance

Course Syllabus Semester-V

Program	gram B. Voc. (Logistics Management)				Semes	ter: V	
Course:	Global Trade Management				CODE:	VLM25106	
Teaching Scheme				Eva	luatio	n Scheme	
Lecture	Hours	Credit	FA 1 FA 2 SA Total				
3	3	3	25 25 50 100				

- 1. Introduce concepts and practices of managing global trade within supply chain operations.
- 2. Understand international trade regulations and compliance requirements.
- 3. Develop strategies to assess and mitigate risks in global trade operations.

Course outcomes:

After learning the course, student will be able to:

- 1. **Explain** concepts and practices of managing global trade within supply chain operations.
- 2. **Explain** the principles, practices, and institutions of international trade.
- 3. **Examine** the practices of Export-Import Operations
- 4. **Apply** the international trade concepts to prepare documentation, manage logistics, and ensure compliance.
- 5. **Apply** the Foreign exchange markets mechanism & Risk mitigation tools
- 6. Apply the Global Trade Strategies for Global Trade Management

Detailed Syllabus:

Unit	Description	Duration (45 Hrs)
		(45 Hrs)
	Introduction to Global Trade	
1	History and evolution of global trade	
-	Theories of international trade: Key trade institutions: WTO, IMF, World Bank, UNCTAD	8
	Globalization and its impact on trade.	0
	International Trade Environment	
2	Political, legal, cultural, and economic environments	
2	Trade barriers: Tariffs, quotas, embargoes, and subsidies	
	Free trade agreements and regional blocs (NAFTA, EU, ASEAN, RCEP)	8
	Export-Import Operations	
	Export-import policy framework	
3	Documentation and procedures	
	• INCOTERMS 2020	8
	Customs clearance, licensing, and compliance	8
	International Logistics and Supply Chain	
	International shipping modes and freight forwarding	_
4	Global sourcing and procurement	7
	Packaging, labeling, and cargo insurance	
	Inventory and warehousing in global trade	
	Foreign Exchange & Risk Management	
	Foreign exchange markets and exchange rate mechanisms	_
5	 Methods of international payments (LC, TT, DA/DP) 	7
	Types of risks in global trade: Credit, political, currency	
	Risk mitigation tools (hedging, export credit insurance)	
	Global Trade Strategy and Analytics	
	Market entry strategies	7
6	Trade data analysis and interpretation	
Ü	Trade facilitation and digital platforms	
	Emerging trends: E-commerce, block chain, AI in trade	

Text Books:

- McBride, Stephen, and John Richard Wiseman, eds. Globalization and its Discontents. London: Macmillan, 2000.
- Gerber, James. International economics. Prentice Hall, 2010.
- Helpman, Elhanan. Understanding global trade. Harvard University Press, 2011.

Pimpri Chinchwad College of Engineering

- Tage Skjott-Larsen et al. Managing the Global Supply Chain
 Alan E. Branch: Export Practice and Management

Program :	B. Voc. (Logistics Management)				Semester: V		
Course:	Global Logistics an	d Supply Chain M	Ianagement		CODE: VLM25108		
	Teaching Schen	ne		Ev	aluatio	n Scheme	
Lecture	Hours	Credit	FA 1 FA 2 SA Total				
3	3	3	25		25	50	100

1. Introduce global logistics concepts and supply chain management concerns.

Investigate the regulatory systems that influence global logistics

Course outcomes:

After learning the course, student will be able to:

- 1. **Explain** the key concepts and principles of Global Supply Chain Management.
- **Examine** the role of logistics management from Global Logistics perspective.
- **Examine** the components and functions of global supply chains.
- **Apply** various Technologies in SCM.
- Analyze the role of Performance Measurement and Sustainability in Global Supply Chain Management
- Analyze the Emerging Trends in Global Logistics.

Detailed Syllabus:

Unit	Description	Duration
		(45Hrs)
	Introduction to Global Supply Chain Management:	
1	 Definition, scope, and importance of logistics and SCM 	8
1	 Evolution of supply chain concepts 	
	Supply chain drivers and metrics	
	Logistics Management:	
	 International trade and logistics, Logistics System Design, Logistics Channels, 	8
2	 Concept of Inventory related to logistics, Transit inventory. 	
	 Modes of transport in global logistics 	
	 Role of 3PL and 4PL providers in global logistics 	
	Global Supply Chain Strategies	8
	Push vs pull systems	
3	 Global sourcing and procurement strategies 	
	 Outsourcing and off shoring considerations 	
	Risk management in global SCM	
	Technology in SCM	7
4	Role of IT and digital tools (ERP, RFID, Blockchain)	
•	Supply chain visibility and traceability	
	E-commerce and digital logistics	
	Performance Measurement and Sustainability	7
5	Key Performance Indicators (KPIs) for SCM	
C	Lean and Agile SCM approaches	
	Green logistics and sustainability practices in SCM	
	Emerging Trends in Global Logistics	7
6	Circular supply chains	
_	Resilient supply chains post-pandemic	
	AI, IoT, and predictive analytics in SCM	

Text Books:

- Chopra, S., & Meindl, P. (2021).: Supply Chain Management: Strategy, Planning, and Operation
- Ballou, R. H. (2020).:Business Logistics/Supply Chain Management
- Christopher, M. (2016): Logistics & Supply Chain Management:
- 4. Simchi-Levi, D., Kaminsky, P., & Simchi-Levi, E. (2021:Designing and Managing the Supply Chain:

- Gwynne Richards & Susan Grinsted: The Logistics and Supply Chain Toolkit
- Philip B. Schary and Tage Skjott-Larsen: Managing the Global Supply Chain

Program :	B. Voc. (Logistics Management)	Semester: V
Course:	Lean Six Sigma in Supply Chain and Management	Logistics CODE: VLM25107

	Teaching Schen	Evaluation Scheme				
Lecture	Hours	Credit	FA 1	FA 2	SA	Total
3	2	2	20	20	40	80

- 1. To understand Lean Six Sigma techniques to optimize supply chain operations.
- 2. To understand the strategies to improve the quality level of goods and services in the supply chain
- 3. Reduce wastage and inefficiencies in all aspects of the supply chain.

Course outcomes:

After learning the course, student will be able to:

- Explain the basic principles of Lean and Six Sigma
- Examine the various Principles used to solve basic logistics/supply chain problems
- Use Six Sigma tools in supply chains management.
- Apply the key metrics for Monitoring performance and process control in supply chain management.

Detailed Syllabus:

Unit	Description	Duration (30 Hrs)
	Introduction to Lean and Six Sigma	(=====)
	Origins and principles of Lean and Six Sigma	7
1	Benefits in Logistics and Supply Chain	
	Common inefficiencies in SCM	
	Metrics: Lead time, OTIF, fill rate, inventory turnover	
	Lean Principles in Supply Chain	
	• 5S, Kaizen, Value Stream Mapping (VSM)	7
2	Just-in-Time (JIT), Kanban systems	
	Lean warehousing and transportation	
	Case examples from manufacturing, retail, and e-commerce	
	Six Sigma Tools and Techniques	8
	DMAIC framework applied to logistics	
3	Application of Lean Six Sigma in procurement, inventory control, order	
	fulfillment.	
	Root Cause Analysis in SCM context. Root Cause Analysis in SCM context.	0
	Metrics, Performance Monitoring & Digital Tools	8
4	KPIs in Lean Six Sigma: DPMO, takt time, cycle time, cost of quality The Six Sigma: DPMO, takt time, cycle time, cost of quality The Six Sigma: DPMO, takt time, cycle time, cost of quality The Six Sigma: DPMO, takt time, cycle time, cost of quality The Six Sigma: DPMO, takt time, cycle time, cost of quality The Six Sigma: DPMO, takt time, cycle time, cost of quality The Six Sigma: DPMO, takt time, cycle time, cost of quality The Six Sigma: DPMO, takt time, cycle time, cost of quality The Six Sigma: DPMO, takt time, cycle time, cost of quality The Six Sigma: DPMO, takt time, cycle time, cost of quality The Six Sigma: DPMO, takt time, cycle time, cost of quality The Six Sigma: DPMO, takt time, cycle time, cost of quality The Six Sigma: DPMO, takt time, cycle time, cost of quality The Six Sigma: DPMO, takt time, cycle time, cyc	
	Basics of digital tools: ERP, WMS, TMS (brief intro)	
	Visual management and dashboards	

Text Books:

- 1. George, M.L.:Lean Six Sigma:
- 2. Womack & Jones :Lean Thinking:
- **3.** Slack, Chambers, & Johnston : Operations Management:
- 4. Kaminsky, P., & Simchi-Levi, E. (2021).: Designing and Managing the Supply Chain:

- 1. James William Martin: Lean Six Sigma for Supply Chain Management:
- 2. Articles/case studies from Harvard Business Review and APICS

Program :	B. Voc. (Logistics Management)				Semester: V		
Course:	e: Humanitarian Logistics				CODE: VLM25109		
	Teaching Schen	ne		Ev	aluatio	n Scheme	
Lecture	Hours	Credit	FA 1 FA 2 SA Total				Total
3	2	2	20		20	40	80

- 1. To understand strategies for effective logistics during humanitarian crises.
- 2. To understand the significance of the resilience of supply chains in humanitarian contexts.
- 3. To know the role of Efficiently allocating resources for humanitarian aid delivery

Course outcomes:

After learning the course, student will be able to:

- 1. Explain the role and challenges of logistics in humanitarian operations.
- 2. Explore the key principles and practices of disaster response through humanitarian supply chains.
- 3. Apply logistics planning and networking in disaster relief scenarios.
- 4. Apply the role of ICT in Humanitarian Logistics.

Detailed Syllabus:

Unit	Description	Duration (30 Hrs)
	Introduction to Humanitarian Logistics	
1	Definition, evolution, and significance	7
1	Comparison with commercial logistics	
	Types of humanitarian crises: natural, man-made, complex emergencies	
	Disaster Response and Supply Chain Challenges	
	Phases of disaster management (Preparedness, Response, Recovery)	7
2	Logistics challenges in unstable environments	
	 Demand forecasting and needs assessment. 	
	• Case studies from major disasters (e.g., Haiti Earthquake, COVID-19 response)	
	Humanitarian Supply Chain Network Design	8
	Strategic pre-positioning of inventory	
3	 Location decisions for warehouses and distribution centers 	
3	Role of coordination among NGOs, governments, and military	
	Emergency procurement strategies	
	Last-mile delivery challenges	
	Multi-modal transport in disaster zones	
	Information Management and Technology	8
4	Role of ICT and GIS in humanitarian logistics	
-	Real-time data sharing and coordination platforms	
	Humanitarian logistics information systems	

Text Books:

- 1. Graham Heaslip and Peter Tatham Humanitarian Logistics: Meeting the Challenge of Preparing for and Responding to Disasters and Complex Emergencies (4th Edition)
- Jesus Gonzalez-Feliu, Mario Chong, and Jorge Vargas Florez: Handbook of Research on Urban and Humanitarian Logistics
- 3. B.S. Sahay: Managing Humanitarian Logistics
- 4. Patrick Meier: Digital Humanitarians: How Big Data is Changing the Face of Humanitarian Response

- 1. Nada R. Sanders and John D. Wood: Humanitarian Logistics and Supply Chain Management: The Role of Collaboration and Coordination
- Edited by Nils M. Hakansson, Luk N. Van Wassenhove Advances in Managing Humanitarian Operations
- 3. Martin Christopher and Peter Tatham : Humanitarian Logistics

Course Syllabus Semester-VI

Program :	B. Voc. (Logistics Management)					Semester: VI		
Course:	Material Handling and Packaging				CODE	: VLM26110		
	Teaching Scheme				aluatio	n Scheme		
Lecture	Hours	Credit	FA 1	F	FA 2	SA	Total	
3	3	3	25		25	50	100	

- 1. Introduce the fundamentals and techniques of logistics material handling efficiency.
- 2. Learn about techniques for optimizing packing procedures in order to streamline logistical operations

Course outcomes:

After learning the course, student will be able to:

- 1. Explain the Fundamental concepts of material handling Practices in SCM
- 2. Explain the type of Material Handling Equipment used in Logistics and Supply Chain Management.
- 3. Explain the fundamental concepts and role of Packaging in Logistics and Supply Chain Management
- 4. Examine the Packaging Techniques and Equipment used in Logistics and Supply Chain Industry
- 5. **Examine** the role of Cost, Safety, and Ergonomics in Packaging
- 6. **Examine** the role of Technology in SCM.
- 7. Apply the Sustainability Practices in Packaging.

Detailed Syllabus:

Unit	Description	Duration (45 H-s)
		(45 Hrs)
	Introduction to Material Handling • Definition, objectives, and importance	8
1	Principles of material handling	
	Relationship with plant layout and productivity	
	Types of material handle	
	Material Handling Equipment	
	Conveyors: belt, screw, roller, chain	8
2	Cranes and hoists	
2	• Industrial trucks: hand, fork-lift, automated guided vehicles (AGVs)	
	Elevators and lifts	
	Storage and retrieval systems	
	Packaging Fundamentals	8
	Objectives and functions of packaging	
3	Types of packaging: primary, secondary, tertiary	
	 Packaging materials: paper, plastics, metals, glass, composites 	
	Eco-friendly and biodegradable packaging	
	Packaging Techniques and Equipment	7
4	Sealing, wrapping, cushioning techniques	
4	Automated packaging lines	
	Barcoding, labeling, RFID in packaging	
	Cost and Safety Standards in Packaging	7
	Cost analysis in material handling and packaging	
5	Safety considerations and risk assessment	
	Ergonomics in handling	
	Role of standards and regulations.	
	Packaging Materials & Sustainability	7
6	 Overview of packaging materials (plastics, paper, metal, glass) 	
	Biodegradable and compostable materials	
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- Smart and active packaging
- Bio-based polymers
- Edible and dissolvable packaging

Text Books:

- 1. Raymond A. Kulweic (Editor): Materials Handling Handbook"
- 2. J.R. Tony Arnold, Stephen N. Chapman, Lloyd M. Clive: Introduction to Materials Management"
- 3. Walter Soroka :Fundamentals of Packaging Technology"
- 4. Anne Emblem :Packaging Technology: Fundamentals, Materials and Processes"

- 1. Wendy Jedlicka: "Sustainable Packaging" -
- 2. Joseph Kerry, Paul Butler: "Smart Packaging Technologies for Fast Moving Consumer Goods"

Program :	Program B. Voc. (Logistics Management) :				Semes	ter: VI	
Course:	e: Port Terminal & Air Cargo Management				CODE: VLM26111		
		Eva	aluatio	n Scheme			
Lecture	Hours	Credit	FA 1	F	A 2	SA	Total

25

25

50

100

1. Describe the concepts and procedures for effective port terminal management.

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- 2. Formulate plans to maximize throughput and efficiency in terminal operations.
- 3. Describe the fundamentals and procedures of air freight operations and logistics.

Course outcomes:

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After learning the course, student will be able to:

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- 1. **Explain** the key concepts and types of Port and Airports used in logistics Management.
- 2. **Explain** the concept of Port Terminal Management in logistics Management.
- 3. **Explain** the concept of Air Cargo Management in logistics Management.
- 4. **Explain** the cargo Documentation and Regulations used.
- 5. **Examine** the role of Terminal & Cargo Management
- 6. **Examine the** Environmental & Risk Management strategies in Port & Cargo Management.

Detailed Syllabus:

Unit	Description	Duration
		(45 Hrs)
	Introduction to Ports and Airports	
	Role in global trade and logistics	8
1	Types of ports (seaports, inland ports) and airports (cargo vs	
1	passenger)	
	Key stakeholders in port and air cargo operations	
	Port and airport infrastructure overview	
	Port Terminal Management	
	Port layout and terminal design	8
2	Types of terminals: container, bulk, Ro-Ro, liquid	
2	 Cargo handling equipment (cranes, forklifts, conveyors) 	
	Berth planning and yard management	
	Port performance metrics (throughput, dwell time, berth occupancy)	
	Air Cargo Management	8
	Air cargo supply chain	
3	 Types of air cargo: general, perishable, hazardous, express 	
	 ULDs (Unit Load Devices), cargo handling systems 	
	Cargo terminal layout and operations	
	Role of freight forwarders and consolidators	
	Cargo Documentation and Regulations	7
	Bill of Lading, Air Waybill	
4	Incoterms (International Commercial Terms)	
	Customs clearance procedures	
	 International regulations: IMO, IATA, ICAO 	
	Security protocols: ISPS Code, air cargo screening	

	Technology in Terminal & Cargo Management	7
5	 Port Community Systems (PCS) 	
	 Terminal Operating Systems (TOS) 	
	 Cargo tracking and RFID, IoT applications 	
	 E-Freight and digitization in air cargo 	
	 Automation & AI in cargo terminals 	
6	Environmental & Risk Management	7
	 Environmental issues at ports and airports 	
	Green logistics practices	
	 Disaster preparedness and risk mitigation 	
	Health & safety standards	

Text Books:

- Patrick Alderton: Port Management and Operations
 Michael Sales: Air Cargo Management
 Marc Levinson (for containerization history: The Box

- IATA Training Manuals
 UNCTAD and World Bank logistics reports