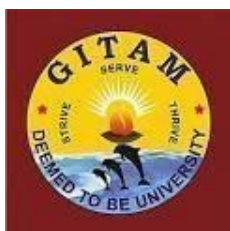


**GANDHI INSTITUTE OF TECHNOLOGY AND MANAGEMENT(GITAM)  
(Deemed to be University)  
VISA KHAPATNAM \* HYDERABAD \* BENGALURU**

**Accredited by NAAC with A+ Grade.**



**CURRICULUM AND SYLLABUS**

**OF**

**UMGMT05: Bachelor of Business Administration**

**B.B.A. (Logistics)**

**w.e.f. 2021-22 admitted batch.**

***(Updated up to Sept 2022)***

# **Academic Regulations**

**Applicable for the Undergraduate Programmes in the Schools of Business,  
Humanities & Social Sciences, Science, Technology**

<https://www.gitam.edu/academic-regulations>

## **VISION AND MISSION OF THE UNIVERSITY**

### **VISION**

To become a global leader in higher education.

### **MISSION**

To impart futuristic and comprehensive education of global standards with a high sense of discipline and social relevance in a serene and invigorating environment.

## **VISION AND MISSION OF THE SCHOOL**

### **VISION**

To be a world class business school through transformative education, research, Innovation and entrepreneurship.

### **MISSION**

1. To achieve excellence in academic program design and academic delivery.
2. To pursue research that adds value to scholarship and improves business practice.
3. To undertake entrepreneurial and social initiatives to address social, economic, and environmental challenges to create societal impact and sustainability.

**Bachelor of Business Administration (Logistics)  
(Effective from academic year 2021-22 admitted batch)**

**PROGRAMME EDUCATIONAL OBJECTIVES (PEOs)**

<b>PEO1</b>	To develop individuals with conceptual knowledge in the multiple disciplines of logistics comprising of mathematics, statistics, information technology and management
<b>PEO2</b>	To develop individuals who can pursue career in logistics and continue the professional development by obtaining master's degree specializing in different domains related to Logistics.
<b>PEO3</b>	To develop individuals who can apply logistics tools and techniques to solve business analytics problems.
<b>PEO4</b>	To imbibe value-based education to the students that will help them to function effectively in their business logistics career.
<b>PEO5</b>	Incorporate the descriptive, predictive and prescriptive analysis of various kinds of Annual Logistics records.

**Mapping of the Mission of the School with the PEOs**

	<b>PEO1</b>	<b>PEO2</b>	<b>PEO3</b>	<b>PEO4</b>	<b>PEO5</b>
<b>M1</b>	H	L	H	M	L
<b>M2</b>	H	H	H	M	H
<b>M3</b>	M	M	L	M	L

H – High, M – Medium, L – Low

**PROGRAMME OUTCOMES(POs) AND PROGRAMME SPECIFIC OUTCOMES(PSOs):**

At the end of the programme the students would be able to:

<b>PO1</b>	Critical Thinking: Take informed actions after identifying the assumptions that frame our thinking and actions, checking out the degree to which these assumptions are accurate and valid, and looking at our ideas and decisions (intellectual, organizational, and personal) from different perspectives.
<b>PO2</b>	Effective Communication: Speak, read, write and listen clearly in person and through electronic media in English and in one Indian language, and make meaning of the world by connecting people, ideas, books, media and technology.
<b>PO3</b>	Social Interaction: Elicit views of others, mediate disagreements and help reach conclusions in group settings.
<b>PO4</b>	Effective Citizenship: Demonstrate empathetic social concern and equity centered national development, and the ability to act with an informed awareness of issues and participate in civic life through volunteering.
<b>PO5</b>	Ethics: Recognize different value systems including your own, understand the moral dimensions of your decisions and accept responsibility for them.
<b>PO6</b>	Environment and Sustainability: Understand the issues of environmental

	contexts and sustainable development.
<b>PO7</b>	Self-directed and Life-long Learning: Acquire the ability to engage in independent and life-long learning in the broadest context of socio-technological changes.
<b>PSO1</b>	Understand the fundamental theories and practices of management.
<b>PSO2</b>	Identify and acquire managerial skills to analyze business problems.
<b>PSO3</b>	Evaluate the requisite knowledge about different forecasting techniques for building a Supply Chain Operations Plan.
<b>PSO4</b>	Analyze the designing for a warehousing facility to develop logistics networks.

## Curriculum Structure

University Core (UC)								
Course code	Level	Course title	L	T	P	S	J	C
CSEN1001	1	IT Productivity Tools	0	0	2	0	0	1*
LANG1001	1	Communication Skills in English - Beginners	0	0	4	0	0	2*
LANG1011	1	Communication Skills in English	0	0	4	0	0	2
LANG1021	1	Advanced Communication Skills in English	0	0	4	0	0	2
CLAD1001	1	Emotional Intelligence & Reasoning Skills (Soft skills 1)	0	0	2	0	0	1
CLAD1011	1	Leadership Skills & Quantitative Aptitude (Soft skills 2)	0	0	2	0	0	1
CLAD1021	1	Verbal Ability & Quantitative Ability (Soft skills 3)	0	0	2	0	0	1
CLAD1031	1	Practicing Verbal Ability & Quantitative Aptitude (Soft skills 4)	0	0	2	0	0	1
VEDC1001	1	Venture Development	0	0	0	2	0	2
DOSP10XX	1	Sports 1#	0	0	0	2	0	2*
DOSL10XX	1	Club Activity#	0	0	0	2	0	2*
POLS1001	1	Indian Constitution and History	2	0	0	0	0	2*
PHPY1001	1	Gandhi for the 21st Century	2	0	0	0	0	2*
DOSL10XX	1	Community Service#	0	0	0	0	2	2*
ENVS1001	1	Environmental Studies^	3	0	0	0	0	3*
MFST1001	1	Health and Welbeing#	0	0	2	0	0	1*
CLAD20XX	2	Soft skills 5A/5B/5C	0	0	2	0	0	1
CLAD20XX	2	Soft skills 6A/6B/6C	0	0	2	0	0	1
FINA3001	3	Personal Financial Planning#	0	0	2	0	0	1*

\* Pass/Fail courses

# Opt any three courses among the five

^ Online/Swayam/NPTEL Courses

Soft skills courses 5 and 6								
Course code	Level	Course title	L	T	P	S	J	C
CLAD2001	2	Preparation for Campus Placement - 1(Soft skills 5A)	0	0	2	0	0	1
CLAD2011	2	Preparation For Higher Education (GRE/ GMAT) - 1 (Soft skills 5B)	0	0	2	0	0	1
CLAD2021	2	Preparation for CAT/ MAT - 1 (Soft skills 5C)	0	0	2	0	0	1
CLAD2031	2	Preparation For Campus Placement - 2(Soft skills 6A)	0	0	2	0	0	1

CLAD2041	2	Preparation For Higher Education (GRE/ GMAT) - 2 (Soft skills 6B)	0	0	2	0	0	1
CLAD2051	2	Preparation for CAT/ MAT - 2 (Soft skills 6C)	0	0	2	0	0	1

Sports courses								
Course code	Level	Course title	L	T	P	S	J	C
DOSP1001	1	Badminton	0	0	0	2	0	2
DOSP1011	1	Chess	0	0	0	2	0	2
DOSP1021	1	Carrom	0	0	0	2	0	2
DOSP1031	1	Football	0	0	0	2	0	2
DOSP1041	1	Volleyball	0	0	0	2	0	2
DOSP1051	1	Kabaddi	0	0	0	2	0	2
DOSP1061	1	Kho Kho	0	0	0	2	0	2
DOSP1071	1	Table Tennis	0	0	0	2	0	2
DOSP1081	1	Handball	0	0	0	2	0	2
DOSP1091	1	Basketball	0	0	0	2	0	2
DOSP1101	1	Tennis	0	0	0	2	0	2
DOSP1111	1	Throwball	0	0	0	2	0	2

Club activity courses								
Course code	Level	Course title	L	T	P	S	J	C
DOSL1001	1	Club Activity (participant)	0	0	0	2	0	2
DOSL1011	1	Club Activity (Member of Club)	0	0	0	2	0	2
DOSL1021	1	Club Activity (Leader of Club)	0	0	0	2	0	2
DOSL1031	1	Club Activity (Competitor)	0	0	0	2	0	2

Community service courses								
Course code	Level	Course title	L	T	P	S	J	C
DOSL1041	1	Community Services - Volunteer	0	0	0	0	2	2
DOSL1051	1	Community Services - Mobilizer	0	0	0	0	2	2

Faculty Core (FC)								
Course code	Level	Course title	L	T	P	S	J	C
HRMG1011	1	Principles of Management	3	0	0	0	0	3
OPTS1031	1	Business Statistics	3	0	0	0	0	3
LANGXXXX	1	Second Language	3	0	0	0	0	3
HRMG1041	1	Management of Human Resources	3	0	0	0	0	3
ACCN1131	1	Management and Cost Accounting	3	0	0	0	0	3



Second Language Courses								
Course code	Level	Course title	L	T	P	S	J	C
LANG1081	1	Special English	3	0	0	0	0	3
LANG1091	1	Hindi	3	0	0	0	0	3
LANG1101	1	Sanskrit	3	0	0	0	0	3
LANG1111	1	Telugu	3	0	0	0	0	3
Programme Core/ Major Core (PC/MaC)								
Course code	Level	Course title	L	T	P	S	J	C
OPTS1021	1	Fundamentals of Logistics	3	0	0	0	0	3
OPTS1041	1	Materials Management	3	0	0	0	0	3
OPTS1051	1	Warehousing & Distribution Centre for Operation	3	0	0	0	0	3
OPTS1071	1	Freight Forwarding (Oceano and Air Cargo)	3	0	0	0	0	3
OPTS1081	1	Forecasting and Inventory Management	3	0	0	0	0	3
OPTS1091	1	Surface Transportation	3	0	0	0	0	3
MKTG2001	2	Marketing Theory and Practice	3	0	0	0	0	3
OPTS2051	2	MIS for Logistics	3	0	0	0	0	3
OPTS2061	2	International Logistics Management	3	0	0	0	0	3
OPTS2071	2	Retail Logistics and E-Commerce	3	0	0	0	0	3
OPTS2081	2	Liner Logistics	3	0	0	0	0	3
OPTS2091	2	Port Terminal Logistics	3	0	0	0	0	3
OPTS2101	2	Commercial Geography	3	0	0	0	0	3
OPTS2111	2	Logistics Network Design	3	0	0	0	0	3
OPTS2121	2	Logistics 4.0	3	0	0	0	0	3
VIVA2999	2	Comprehensive Viva	2	0	0	0	0	2
OPTS2666	2	Apprenticeship – 1	0	0	0	22	0	22
OPTS3666	3	Apprenticeship – 2	0	0	0	22	0	22

Programme Electives								
Course code	Level	Course title	L	T	P	S	J	C
Group A								
OPTS3021	3	Introduction to Aviation Industry & Airport	3	0	0	0	0	3
OPTS3031	3	Introduction to Air Cargo Industry	3	0	0	0	0	3
Group B								
OPTS3041	3	First Mile Operations	3	0	0	0	0	3
OPTS3051	3	Last Mile Operations	3	0	0	0	0	3
Group C								
OPTS3061	3	Multi-Modal Transportation	3	0	0	0	0	3
OPTS3071	3	Commercial Aspects of Transportation	3	0	0	0	0	3

# Opt any one group from the given 3 groups of courses

Course code	Level	Course title	L	T	P	S	J	C
<b>Allied Courses – 1</b>								
OPTS3081	3	Warehouse Automation	2	0	0	0	0	2
OPTS3091	3	Best Practices for Transportation	2	0	0	0	0	2
OPTS3101	3	Inland Waterways & Coastal Shipping	2	0	0	0	0	2
<b>Allied Courses – 2</b>								
OPTS3111	3	Courier, Express & Parcel Services	2	0	0	0	0	2
OPTS3121	3	Inplant Logistics	2	0	0	0	0	2
OPTS3131	3	Export and Import Documentation	2	0	0	0	0	2

# Opt any two courses from each allied course basket.

#### Total credit distribution

Description	Credits	%of Program(in credits)
University Core (UC)	12	9
Faculty Core (FC)	15	11
Programme Core (PC)	91	69
Programme Electives (PE)	14	11
<b>Total</b>	<b>132</b>	<b>100%</b>

## **University Core**



CSEN1001	IT PRODUCTIVITY TOOLS	L	T	P	S	J	C
		0	0	2	0	0	1
<b>Pre-requisite</b>	None						
<b>Co-requisite</b>	None						
<b>Preferable exposure</b>	Familiarity with Computer system and its operation.						

**Course Description:**

*This course introduces all software tools that improve the productivity of a student in enhancing his learning experience with all the activities taken up as part of his coursework.*

**Course Educational Objectives:**

- to impart the skill in preparing technical documents of professional quality using docs, sheets and forms
- to involve the student in preparation of websites, analyzing data and acquaint the student with the skill of processing audio, images, documents etc.

**10 hours**

**List of Experiments:**

1. Create a typical document consisting of text, tables, pictures, multiple columns, with different page orientations.
2. Create a technical paper / technical report consisting of table of contents, table of figures, table of tables, bibliography, index, etc.
3. Compose and send customized mail / e-mail using mail-merge.
4. Create / modify a power point presentation with text, multimedia using templates with animation.
5. Create spreadsheet with basic calculations with relative reference, absolute reference and mixed reference methods.
6. Simple report preparation using filtering tool / advanced filtering commands / pivot tables in spreadsheet application.
7. Analyze the results of a examination student wise, teacher wise, course wise, institute-wise.
8. Collecting and consolidating data using collaborative tools like google docs, sheets, forms.
9. Create charts / pictures using online tools like: [www.draw.io](http://www.draw.io) or smartdraw
10. Create a website of his interest.

**Textbooks:**

1. Katherin Murray, 'Microsoft Office 365 Connect and collaborate virtually anywhere, anytime', Microsoft Press, ISBN: 978-0-7356-5694-9
2. EXCEL 2021 The Comprehensive Beginners to Advanced Users Guide to Master Microsoft Excel 2021. Learn the Essential Functions, New Features, Formulas, Tips and Tricks, and Many More
3. <https://drawio-app.com/tutorials/video-tutorials/>  
Learning Web Design: A Beginner's Guide to HTML, CSS, JavaScript, and Web Graphics  
Fourth Edition ISBN-13: 978-1449319274

**References**

1. <https://www.coursera.org/learn/introduction-to-computers-and-office-productivity-software>
2. <https://www.coursera.org/projects/analyze-data-pivot-tables-crosstabs-google-sheets>
3. <https://www.coursera.org/learn/excel-advanced#syllabus>
4. <https://www.coursera.org/learn/how-to-create-a-website>
5. <https://support.microsoft.com/en-us/office>
6. <https://www.diagrams.net/>
7. <https://edu.google.com/>

**Course Outcomes:**

1. Create / alter documents / Technical Paper / Project report with text, pictures, graphs of different styles.
2. Create / modify power point presentations with text, multimedia and to add animation using / creating templates.
3. Perform basic calculations / retrieve data / create pivot tables / chart using a spreadsheet application.
4. Create simple diagrams / charts using online tools like: [www.draw.io](http://www.draw.io) .
5. Manage documents, presentations, spreadsheets and websites in collaborative mode.

**Co-Po Mapping**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4
CO1					2				1	1	
CO2					2				1	1	
CO3	2	1	1		2				1	1	
CO4					2				1	1	
CO5					2				3	3	

**Note: 1 - Low Correlation 2 - Medium Correlation 3 - High Correlation**

**APPROVED IN:**

**BOS :06-09-2021**

**ACADEMIC COUNCIL:17-09-201**

**SDG No. & Statement:4**

Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.

**SDG Justification:**

Emotional Intelligence and reasoning skills are essential for achieving inclusive and equitable education and lifelong learning opportunities for oneself and others.

<b>CLAD1001</b>	<b>EMOTIONAL INTELLIGENCE &amp; REASONING SKILLS (SOFT SKILLS 1)</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>J</b>	<b>C</b>
		<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>1</b>
<b>Pre-requisite</b>	None						
<b>Co-requisite</b>	None						
<b>Preferable exposure</b>	None						

**Course Description:**

*Emotional intelligence is a set of skills that are thought to contribute to the appraisal of emotions in oneself and others. It can also help contribute to the effective regulation of emotions as well as feelings (Salovey & Mayer, 1990). In terms of emotional intelligence, self-awareness and self-management have to do with our ability to relate to ourselves. Social awareness and relationship management have to do with our ability to relate to others. Similarly, the ability to solve questions on Analytical Reasoning and Data Sufficiency is a critical area tested in almost all competitive examinations and admission tests. Upon completion, students should be able (1) to deal with their own emotions as well as the emotions of others and relate better with both. Using better knowledge of EI, students will also be able to set more meaningful goals for themselves, choose suitable time management techniques that work best for them and work in teams more effectively. (2) to apply different concepts, ideas, and methods to solve questions in reasoning and data sufficiency*

**Course Educational Objectives:**

- Use EI to relate more effectively to themselves, their colleagues and to others. Apply self-awareness and self-assessment (SWOT) to better understand and manage their own emotions. Apply social awareness to empathize with others and build stronger relationships with others.
- Set meaningful goals based on their strengths and weaknesses and apply time management techniques, such as Q4 organizing to put first things first.
- Manage conflicts and work in teams in an emotionally intelligent manner.
- Solve questions on non-verbal and analytical reasoning, data sufficiency and puzzles

**List of Activities & Tasks for Assessment:**

<b>Unit</b>	<b>Topics</b>	<b>Hours</b>
1	Self-Awareness & Self-Regulation: Introduction to Emotional Intelligence, <i>Self-Awareness: Self-Motivation, Accurate Self-Assessment (SWOT Analysis), Self-Regulation: Self Control, Trustworthiness &amp; Adaptability</i>	3



2	Importance, Practising Social Awareness, Building Relationships, Healthy and Unhealthy Relationships, Relationship Management Competencies- Influence, Empathy, Communication, Types of Conflicts, Causes, Conflict Management	3
3	Social Media: Creating a blog, use of messaging applications, creating a website to showcase individual talent, creation of a LinkedIn Profile	2
4	Goal Setting & Time Management: Setting SMART Goals, Time Wasters, Prioritization, Urgent Vs Important, Q2 Organization	3
5	Teamwork: Team Spirit, Difference Between Effective and Ineffective Teams, Characteristics of High Performance Teams, Team Bonding, Persuasion, Team Culture, Building Trust, Emotional Bank Account	4
6	Verbal Reasoning: Introduction, Coding-decoding, Blood relations, Ranking Directions, Group Reasoning	6
7	Analytical Reasoning: Cubes and Dices, Counting of Geometrical figures	3
8	Logical Deduction: Venn diagrams, Syllogisms, Data Sufficiency, Binary logic	4
9	Spatial Reasoning: Shapes, Paper Cutting/Folding, Mirror images, Water images and Rotation of figures	2

**References:**

1. Verbal Ability & Reading Comprehension by Arun Sharma and Meenakshi Upadhyay
2. Study material for CAT, SAT, GRE, GMAT by TIME, Career Launcher and IMS etc.
3. Quantitative Aptitude by R S Agarwal S Chand Publications
4. Quantitative Aptitude by Pearson Publications

**Course Outcomes:**

1. Students will be able to relate more effectively to themselves, their colleagues and to others
2. Students will be able to set their short term and long term goals and better manage their time
3. Students will be able to manage conflicts in an emotionally intelligent manner and work in teams effectively
4. Students will be able to solve questions based on non-verbal and analytical reasoning, data sufficiency and puzzle

**CO-PO Mapping:**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4
CO1		3	3				3				
CO2		3	3				3				
CO3		3	3				3				
CO4	3						3				
CO5											

Note: 1 - Low Correlation 2 - Medium Correlation 3 - High Correlation

**APPROVED IN:**

**BOS :17-09-2021**

**ACADEMIC COUNCIL:17-09-201**

**SDG No. & Statement:4**

Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.

**SDG Justification:**

Emotional Intelligence and reasoning skills are essential for achieving inclusive and equitable education and lifelong learning opportunities for oneself and others.

<b>CLAD1011</b>	<b>LEADERSHIP SKILLS &amp; QUANTITATIVE APTITUDE (SOFT SKILLS 2)</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>J</b>	<b>C</b>
		<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>1</b>
<b>Pre-requisite</b>	None						
<b>Co-requisite</b>	None						
<b>Preferable exposure</b>	None						

**Course Description:**

*Communication Skills is having the ability to convey information to others so that messages are understood, and outcomes delivered. Some essential qualities of Communication Skills include understanding the needs of others, clearly communicating messages, adapting the communication style, and using a range of communication methods. Presentation Skills is having the ability to confidently deliver an engaging message to a group of people which achieves the objectives. Some essential qualities of Presentation Skills include a thorough preparation of content, structuring content logically, managing nerves, engaging your audience, delivering presentation objectives, positively influencing the audience, and responding to audience needs. Tackling questions based on numbers, arithmetic, data interpretation and puzzles requires the application of different rules and concepts of numerical computation, numerical estimation, and data estimation.*

**Course Educational Objectives:**

- Learn and apply, through different individual and group activities, different ideas, and skills to communicate in a positive and impressive manner.
- Apply the goal setting process (based on SWOT) and Q2 organizing for effective time management.
- Apply different concepts in numbers, numerical computation, and numerical estimation to solve questions that often appear in various competitive examinations and admission tests.
- Apply different concepts for tackling questions based on data interpretation, progression and series that are frequently given in various competitive examinations and admission tests.

**List of Activities & Tasks for Assessment:**

<b>Unit</b>	<b>Topics</b>	<b>Hours</b>
1	Communication Skills: The Communication Process, Elements of Interpersonal Communication, Non-Verbal Communication: Body Language, Posture, Eye Contact, Smile, Tone of Voice, Barriers to	5

	Communication. Effective Listening Skills: Active Listening, Passive Listening, Asking Questions, Empathizing, Being Non-Judgmental, Being Open Minded, Mass Communication: Design of Posters, Advertisements, notices, writing formal and informal invitations	
2	Focus on Audience Needs, focus on the Core Message, Use Body Language and Voice, Start Strongly, Organizing Ideas & Using Visual Aids: SPAM Model, Effective Opening and Closing Techniques, Guy Kawasaki's Rule (10-20-30 Rule), Overcoming Stage Fear, Story Telling	3
3	Problem Solving & Decision Making: Difference Between the Two, Steps in Rational Approach to Problem Solving: Defining the Problem, Identifying the Root Causes, Generating Alternative Solutions, Evaluating and Selecting Solutions, Implementing and Following-Up, Case Studies	3
4	Group Discussion: Understanding GD, Evaluation Criteria, Nine Essential Qualities for Success, Positive and Negative Roles, Mind Mapping, structuring a Response, Methods of Generating Fresh Ideas	4
5	Number Theory: Number System, Divisibility rules, Remainders and LCM & HCF	3
6	Numerical Computation and Estimation - I: Chain Rule, Ratio Proportions, Partnerships & Averages, Percentages, Profit-Loss & Discounts, Mixtures, Problem on Numbers & ages	6
7	Data Interpretation: Interpretation and analysis of data in Tables, Caselets, Line- graphs, Pie-graphs, Boxplots, Scatterplots and Data Sufficiency	3
8	Mental Ability: Series (Number, Letter and Alphanumeric), Analogy (Number, Letter and Alphanumeric) and Classifications	3

**References:**

1. Verbal Ability & Reading Comprehension by Arun Sharma and Meenakshi Upadhyay
2. Study material for CAT, SAT, GRE, GMAT by TIME, Career Launcher and IMS etc.
3. Quantitative Aptitude by R S Agarwal S Chand Publications
4. Quantitative Aptitude by Pearson Publications

**Course Outcomes:**

1. Students will be able to communicate 'one-on-one' and 'one-on-many' confidently using both verbal and non-verbal messages and deliver impressive talks/

presentations to a group both with and without the use of PPTs and create posters, advertisements, etc.

2. Students will be able to apply the rational model of problem solving and decision making in their problem solving and decision-making efforts.
3. Students will be able to solve questions based on numbers and arithmetic given in various competitive examinations
4. Students will be able to solve questions based on data interpretation, progressions, and series.

**CO-PO Mapping:**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4
CO1		3	3				3				
CO2		3	3				3				
CO3	3						2				
CO4	3						2				
CO5											

Note: 1 - Low Correlation 2 - Medium Correlation 3 - High Correlation

**APPROVED IN:**

**BOS :17-09-2021**

**ACADEMIC COUNCIL:17-09-2021**

**SDG No. & Statement:4**

Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.

**SDG Justification:**

Leadership and quantitative aptitude skills are essential skills for achieving inclusive and equitable education and lifelong learning opportunities for oneself and others.

<b>CLAD1021</b>	<b>VERBAL ABILITY &amp; QUANTITATIVE ABILITY (SOFT SKILLS 3)</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>J</b>	<b>C</b>
		<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>1</b>
<b>Pre-requisite</b>	None						
<b>Co-requisite</b>	None						
<b>Preferable exposure</b>	None						

**Course Description:**

*Vocabulary is an important part of verbal ability. An understanding of word formation, prefixes, suffixes, and roots is necessary to remember and use a vast repository of words. Approaching words through word families and other ways of groupings is an effective way of gaining mastery over vocabulary. Understanding and getting acquainted with the different rules and exceptions in the use of grammar and structure, especially from the relevant examination point of view, is crucial to cracking questions given in many competitive tests. Similarly, improving reading comprehension skills and test taking abilities in this area takes time and effort, especially given the fact that most students do not possess strong reading habits. In so far as quantitative aptitude is concerned, students need to develop a strong foundation on the basic mathematical concepts of numerical estimation, geometry, mensuration, data sufficiency, etc. to be able to crack different round 1 tests of major recruiters and admission tests of top Indian and foreign universities.*

**Course Educational Objectives:**

- List and discuss the different word formation methods, word denotation, connotation, collocation, etc. and introduce selected high frequency words, their antonyms, synonyms, etc.
- Apply different advanced reading skills to solve questions based on author's tone, main ideas and sub-ideas, inferences, Para jumbles, etc. that are frequently asked in various competitive exams and admission tests.
- Solve different types of questions based on vocabulary, such as word analogy; structure, grammar, and verbal reasoning; introduce common errors and their detection and correction.
- Solve questions on numerical estimation, mensuration, data sufficiency based on quantitative aptitude. This includes questions on time and work, time and distance, pipes and cisterns, lines and angles, triangles, quadrilaterals, polygons and circles, 2- & 3-dimensional mensuration.

**List of Activities & Tasks for Assessment:**

1. **Vocabulary Builder:** Understanding Word Formation, Prefixes, Suffixes and Roots, Etymology, Word Denotation, Connotation and Collocation, Synonyms and Antonyms
2. **Reading Comprehension:** Advanced Reading Comprehension: Types of RC passages, Types of Text Structures, Types of RC Questions: Distinguishing Between Major Ideas and Sub Ideas, Identifying the Tone and Purpose of the Author, Reading Between the Lines and Beyond the Lines, Techniques for Answering Different Types of Questions
3. **Para Jumbles:** Coherence and Cohesion, Idea Organization Styles, Concept of Mandatory Pairs and Its Application: Transitional Words, Antecedent-Pronoun Reference, Article Reference, Cause and Effect, Chronological Order, General to Specify, Specify to General, Idea-Example, Idea-Explanation, Etc.
4. **Grammar Usage:** Rules Governing the Usage of Nouns, Pronouns, Adjectives, Adverbs, Conjunctions, Prepositions and Articles
5. **Numerical Computation and Estimation - II:** Time and Work, Pipes and Cisterns, Time and Distance, Problems on Trains, Boats and Streams, Races and Games of Skill, Simple Interest & Compound Interest
6. **Geometry:** Lines and Angles, Triangles, Quadrilaterals & Polygons, and Circles
7. **Mensuration:** 2-Dimensional Mensuration (Triangles, Quadrilaterals and Circles), 3-Dimensional Mensuration (Cubes, Cuboids, Cylinder, Cone, Sphere)

**References:**

1. Verbal Ability & Reading Comprehension by Arun Sharma and Meenakshi Upadhyay
2. Study material for CAT, SAT, GRE, GMAT by TIME, Career Launcher and IMS etc.
3. Quantitative Aptitude by R S Agarwal S Chand Publications
4. Quantitative Aptitude by Pearson Publications

**Course Outcomes:**

1. List and discuss word formation methods, selected high frequency words, their antonyms, synonyms, etc.
2. Analyze reading passages and quickly find out the correct responses to questions asked, including para jumbles, by using reading skills like skimming, scanning, reading between the lines, etc.
3. Solve different types of questions based on vocabulary, structure, grammar and verbal reasoning
4. Solve questions on numerical estimation, mensuration, data sufficiency based on quantitative aptitude

**CO-PO Mapping:**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4
CO1		2					2				
CO2		2					2				
CO3	3						2				
CO4	3						2				
CO5											

Note: 1 - Low Correlation 2 - Medium Correlation 3 - High Correlation

**APPROVED IN:**

**BOS :17-09-2021**

**ACADEMIC COUNCIL:17-09-2021**

**SDG No. & Statement:4**

Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.

**SDG Justification:**

English language and quantitative aptitude skills are essential skills for achieving inclusive and equitable education and lifelong learning opportunities for oneself and others.



<b>CLAD1031</b>	<b>PRACTICING VERBAL ABILITY &amp; QUANTITATIVE APTITUDE (SOFT SKILLS 4)</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>J</b>	<b>C</b>
		<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>1</b>
<b>Pre-requisite</b>	None						
<b>Co-requisite</b>	None						
<b>Preferable exposure</b>	None						

**Course Description:**

*A sound knowledge of the rules of English grammar, structure and style and its application in detecting errors in writing are important areas of Verbal Ability frequently tested as a part of the written test in many competitive examinations and admission tests of major recruiters and universities respectively. This module focuses on all important areas of grammar and structure commonly asked in major tests, such as GMAT, CAT, XLRI, CRT, etc. Similarly, in the area of Quantitative Aptitude, different kinds of questions are asked from Combinatorics (Permutations & Combinations, Probability], Cryptarithmic & Modular Arithmetic (Cryptarithmic, Application of base system (7, 24), Clocks (Base 24), Calendars (Base 7), and Mental Ability (Number series, Letter series & Alpha numeric series, Analogies ( Numbers, letters), Classifications, Algebra (Exponents, Logarithms, Problems related to Equations, Special Equations, and Statistics) . This module focuses on all these areas by building on what the students already learnt in their earlier studies.*

**Course Educational Objectives:**

- Apply the rules of grammar to solve questions in Error Detection, Sentence Correction and Sentence Improvement.
- Apply the rules of structure to solve questions in Error Detection, Sentence Correction and Sentence Improvement, Fill-in-blanks and Cloze Passages.
- Explain methods of solving problems in Combinatorics (Permutations & Combinations, Probability], Cryptarithmic & Modular Arithmetic (Cryptarithmic, Application of basesystem (7, 24), Clocks (Base 24), Calendars (Base 7)]
- Explain how to solve questions in Mental Ability (Number series, Letter series & Alpha numeric series, Analogies, Numbers, letters, Classifications] and Algebra (Exponents, Logarithms, Problems related to Equations, Special Equations, Statistics)

**List of Activities & Tasks for Assessment:**

1. Error Detection: Pronouns, Conjunctions, Prepositions and Articles
2. Error Detection: Tenses and their Uses
3. Sentence Correction: Subject-Verb Agreement, Antecedent-Pronoun Agreement, Conditional Clauses

4. Sentence Correction: Modifiers (Misplaced and Dangling) & Determiners, Parallelism & WordOrder, and Degrees of Comparison
5. Combinatorics: Permutations & Combinations, Probability
6. Crypt arithmetic & Modular Arithmetic: Crypt arithmetic, Application of Base System (7, 24),Clocks (Base 24), Calendars (Base 7)
7. Algebra: Exponents, Logarithms, Word-problems related to equations, Special Equations,Progressions, Statistics

**References:**

1. Verbal Ability & Reading Comprehension by Arun Sharma and Meenakshi Upadhyay
2. Study material for CAT, SAT, GRE, GMAT by TIME, Career Launcher and IMS etc.
3. Quantitative Aptitude by R S Agarwal S Chand Publications
4. Quantitative Aptitude by Pearson Publications

**Course Outcomes:**

1. Identify and correct errors in English grammar and sentence construction
2. Identify and correct errors in Structure, Style and Composition
3. Solve problems in Combinatorics, Cryptarithmic, and Modular Arithmetic
4. Solve problems in Mental Ability and Algebra

**CO-PO Mapping:**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4
<b>CO1</b>							3				
<b>CO2</b>							3				
<b>CO3</b>	3						3				
<b>CO4</b>	3						3				
<b>CO5</b>											

Note: 1 - Low Correlation 2 - Medium Correlation 3 - High Correlation

**APPROVED IN:**

**BOS :17-09-2021**

**ACADEMIC COUNCIL:17-09-2021**

**SDG No. & Statement:4**

Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.

**SDG Justification:**

English language and quantitative aptitude skills are essential skills for achieving inclusive and equitable education and lifelong learning opportunities for oneself and others.

CLAD2001	PREPARATION FOR CAMPUS PLACEMENT -1 (SOFT SKILLS 5A)	L	T	P	S	J	C
		0	0	2	0	0	1
<b>Pre-requisite</b>	None						
<b>Co-requisite</b>	None						
<b>Preferable exposure</b>	None						

**Course Description:**

*The course addresses all relevant areas related to campus placements and readies them to ace their upcoming/ ongoing recruitment drives. Specifically, it focuses on students' career preparedness, interview skills, test preparedness, etc.*

**Course Educational Objectives:**

Prepare the students for their upcoming/ ongoing campus recruitment drives.

**List of Activities & Tasks for Assessment:**

1. Career Preparedness: Resume & Cover Letter Writing, Interview Skills: Elevator Pitch, Making the First Impression, Being Other-Oriented, Being Positive and Curious, communicating with Confidence and Poise, Frequently Asked Questions & How to Answer Them, Pitfalls to Avoid, Etc. Etiquette: Hygiene, Courtesy, Culture differences, Workplace, use of cell phone, Profanity, Slang, Protocol.
2. Verbal Ability: Practicing Reading Comprehension, Error Detection, Sentence Completion, MCQs, FIBs, Para jumbles, Cloze Test, Critical Reasoning.
3. Quantitative Aptitude: Number Systems, Algebra, Geometry, Data Handling, Data Sufficiency, Word Problems
4. Reasoning: Logical and Verbal Reasoning

**References:**

1. Verbal Ability & Reading Comprehension by Arun Sharma and MeenakshiUpadhyay
2. Study material for CAT, SAT, GRE, GMAT by TIME, CareerLauncher and IMSetc.
3. Quantitative Aptitude by R S Agarwal S Chand Publications
4. Quantitative Aptitude by Pearson Publications

**Course Outcomes:**

1. Write a power resume and covering letter
2. Answer interview questions with confidence and poise
3. Exhibit appropriate social mannerisms in interviews
4. Solve placement test questions on verbal ability, quantitative aptitude and reasoning

**CO-PO Mapping:**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4
CO1		1					3				
CO2		3					3				
CO3	3						3				
CO4	3						3				
CO5											

Note: 1 - Low Correlation 2 - Medium Correlation 3 - High Correlation

**APPROVED IN:**

**BOS :17-09-2021**

**ACADEMIC COUNCIL:17-09-2021**

**SDG No. & Statement:4**

Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.

**SDG Justification:**

Quantitative aptitude, reasoning, verbal and language skills practiced during the preparation for campus placement tests provide essential skills for achieving inclusive and equitable education and lifelong learning opportunities for oneself and others.

<b>CLAD2011</b>	<b>PREPARATION FOR HIGHER EDUCATION (GRE/ GMAT)-1 (SOFT SKILLS 5B)</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>J</b>	<b>C</b>
		<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>1</b>
<b>Pre-requisite</b>	None						
<b>Co-requisite</b>	None						
<b>Preferable exposure</b>	None						

**Course Description:**

*The course offers a special track for students who aspire to go abroad in pursuit of their higher education for which a GRE/ GMAT score is a prerequisite. It covers all four topical areas of these tests and includes fully solved mock tests as well.*

**Course Educational Objectives:**

- Prepare the students to solve questions from all four broad areas of GRE/ GMAT
- Orient the students for GRE/ GMAT through mock tests

**List of Activities & Tasks for Assessment:**

1. Verbal Reasoning: Reading Comprehension, Sentence Equivalence, TextCompletion, Sentence Correction, Critical Reasoning
2. Quantitative Reasoning: Arithmetic, Algebra, Geometry, Data Analysis
3. Analytical Writing Assessment: Issue/ Argument
4. Integrated Reasoning

**References:**

1. Verbal Ability & Reading Comprehension by Arun Sharma and MeenakshiUpadhyay
2. Study material for CAT, SAT, GRE, GMAT by TIME, CareerLauncher and IMSetc.
3. Quantitative Aptitude by R S Agarwal S Chand Publications
4. Quantitative Aptitude by Pearson Publications

**Course Outcomes:**

1. Solve questions from all four broad areas of GRE/ GMAT
2. Practice answering several mock tests

**CO-PO Mapping:**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4
CO1	3			2			3				
CO2	3			2			3				
CO3											
CO4											
CO5											

Note: 1 - Low Correlation 2 - Medium Correlation 3 - High Correlation

**APPROVED IN:**

**BOS :17-09-2021**

**ACADEMIC COUNCIL:17-09-2021**

**SDG No. & Statement:4**

Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.

**SDG Justification:**

Quantitative aptitude, reasoning, verbal and language skills practiced during the preparation for GRE/GMAT tests provide essential skills for achieving inclusive and equitable education and lifelong learning opportunities for oneself and others.

<b>CLAD2021</b>	<b>PREPARATION FOR CAT/ MAT – 1 (SOFT SKILLS 5C)</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>J</b>	<b>C</b>
		<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>1</b>
<b>Pre-requisite</b>	None						
<b>Co-requisite</b>	None						
<b>Preferable exposure</b>	None						

**Course Description:**

*The course offers a special track for UG students who aspire to go for higher education in business management in India for which cracking CAT/ MAT/ other related test is mandatory. It covers all four topical areas of these tests and includes fully solved mock tests as well.*

**Course Educational Objectives:**

- Prepare the students to solve questions from all four relevant areas of CAT/ XAT/MAT, etc.
- Orient the students for CAT/ XAT, etc. through mock tests

**List of Activities & Tasks for Assessment:**

1. Quantitative Ability: Arithmetic, Algebra, Geometry, Mensuration, Calculus, Trigonometry
2. Data Interpretation: Data Interpretation and Data Sufficiency
3. Logical Reasoning: Data Management, Deductions, Verbal Reasoning and Non-Verbal Reasoning
4. Verbal Ability: Critical Reasoning, Sentence Correction, Para Completion, Para Jumbles, Reading Comprehension

**References:**

1. Verbal Ability & Reading Comprehension by Arun Sharma and Meenakshi Upadhyay
2. Study material for CAT, SAT, GRE, GMAT by TIME, Career Launcher and IMS etc.
3. Quantitative Aptitude by R S Agarwal S Chand Publications
4. Quantitative Aptitude by Pearson Publications

**Course Outcomes:**

1. Solve questions from all four relevant areas of CAT/ MAT as listed above
2. Practice test-cracking techniques through relevant mock tests



**CO-PO Mapping:**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4
CO1	3			2			3				
CO2	3			2			3				
CO3											
CO4											
CO5											

Note: 1 - Low Correlation 2 - Medium Correlation 3 - High Correlation

**APPROVED IN:**

**BOS :17-09-2021**

**ACADEMIC COUNCIL:17-09-2021**

**SDG No. & Statement:4**

Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.

**SDG Justification:**

Quantitative aptitude, reasoning, verbal and language skills practiced during the preparation for CAT/ MAT tests provide essential skills for achieving inclusive and equitable education and lifelong learning opportunities for oneself and others.

CLAD2031	PREPARATION FOR CAMPUS PLACEMENT-2 (SOFT SKILLS 6A)	L	T	P	S	J	C
		0	0	2	0	0	1
Pre-requisite	None						
Co-requisite	None						
Preferable exposure	None						

**Course Description:**

*This course builds on the previous course and focuses on all four major areas of campus placements, including career preparedness, mock interviews, verbal ability, quantitative aptitude, and logical reasoning.*

**Course Educational Objectives:**

- To comprehensively prepare all eligible and aspiring students for landing their dream jobs.
- To sharpen the test-taking skills in all four major areas of all campus drives

**List of Activities & Tasks for Assessment:**

1. Career Preparedness II: Mock Interviews, Feedback and Placement Readiness
2. Verbal Ability II: Practising Reading Comprehension, Error Detection, Sentence Completion, MCQs, FIBs, Para jumbles, Cloze Test, Critical Reasoning
3. Quantitative Aptitude II: Number Systems, Algebra, Geometry, Data Handling, Data Sufficiency, Word Problems
4. Reasoning II: Logical and Verbal Reasoning

**References:**

1. Verbal Ability & Reading Comprehension by Arun Sharma and Meenakshi Upadhyay
2. Study material for CAT, SAT, GRE, GMAT by TIME, CareerLauncher and IMS etc.
3. Quantitative Aptitude by R S Agarwal S Chand Publications
4. Quantitative Aptitude by Pearson Publications

**Course Outcomes:**

1. Demonstrate career preparedness and confidence in tackling campus interviews
2. Solve placement test questions of a higher difficulty level in verbal ability, quantitative aptitude and logical reasoning.
3. Practice test-taking skills by solving relevant questions accurately and within time.

**CO-PO Mapping:**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4
CO1		3	3				3				
CO2							3				
CO3							3				
CO4											
CO5											

Note: 1 - Low Correlation 2 - Medium Correlation 3 - High Correlation

**APPROVED IN:**

**BOS :17-09-2021**

**ACADEMIC COUNCIL:17-09-2021**

**SDG No. & Statement:4**

Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.

**SDG Justification:**

Quantitative aptitude, reasoning, verbal and language skills practiced during the preparation for campus placement tests provide essential skills for achieving inclusive and equitable education and lifelong learning opportunities for oneself and others.

<b>CLAD2041</b>	<b>PREPARATION FOR HIGHER EDUCATION (GRE/GMAT)-2 (SOFT SKILLS 6B)</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>J</b>	<b>C</b>
		<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>1</b>
<b>Pre-requisite</b>	None						
<b>Co-requisite</b>	None						
<b>Preferable exposure</b>	None						

**Course Description:**

*The course offers a special track for students who aspire to go abroad in pursuit of their higher education for which a GRE/ GMAT score is a prerequisite. It covers all four topical areas of these tests at a higher difficulty-level and includes fully solved mock tests as well.*

**Course Educational Objectives:**

- Prepare the students to solve higher level questions from all four broad areas of GRE/ GMAT
- Orient the students for GRE/ GMAT through mock tests

**List of Activities & Tasks for Assessment:**

1. Verbal Reasoning II: Reading Comprehension, Sentence Equivalence, Text Completion, Sentence Correction, Critical Reasoning
2. Quantitative Reasoning II: Arithmetic, Algebra, Geometry, Data Analysis
3. Analytical Writing Assessment II: Issue/ Argument
4. Integrated Reasoning II

**References:**

1. Verbal Ability & Reading Comprehension by Arun Sharma and Meenakshi Upadhyay
2. Study material for CAT, SAT, GRE, GMAT by TIME, Career Launcher and IMS etc.
3. Quantitative Aptitude by R S Agarwal S Chand Publications
4. Quantitative Aptitude by Pearson Publications

**Course Outcomes:**

1. Solve higher level questions from all four broad areas of GRE/ GMAT
2. Practice answering several mock tests

**CO-PO Mapping:**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4
<b>CO1</b>	2						3				
<b>CO2</b>	2						3				
<b>CO3</b>											
<b>CO4</b>											
<b>CO5</b>											

Note: 1 - Low Correlation 2 - Medium Correlation 3 - High Correlation

**APPROVED IN:**

**BOS :17-09-2021**

**ACADEMIC COUNCIL:17-09-2021**

**SDG No. & Statement:4**

Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.

**SDG Justification:**

Quantitative aptitude, reasoning, verbal and language skills practiced during the preparation for GRE/GMAT tests provide essential skills for achieving inclusive and equitable education and lifelong learning opportunities for oneself and others.

CLAD2051	PREPARATION FOR CAT/ MAT – 2 (SOFT SKILLS 6C)	L	T	P	S	J	C
		0	0	2	0	0	1
<b>Pre-requisite</b>	None						
<b>Co-requisite</b>	None						
<b>Preferable exposure</b>	None						

**Course Description:**

*The course offers a special track for UG students who aspire to go for higher education in business management in India for which cracking CAT/ MAT/ other related test is mandatory. It covers all four topical areas of these tests at a higher level of difficulty and includes fully solved mock tests as well.*

**Course Educational Objectives:**

- Prepare the students to solve all types of questions from all four relevant areas of CAT/ XAT/ MAT, etc.

**List of Activities & Tasks for Assessment:**

1. Quantitative Ability II: Arithmetic, Algebra, Geometry, Mensuration, Calculus, Trigonometry
2. Data Interpretation II: Data Interpretation and Data Sufficiency
3. Logical Reasoning II: Data Management, Deductions, Verbal Reasoning and Non-Verbal Reasoning
4. Verbal Ability II: Critical Reasoning, Sentence Correction, Para Completion, Para Jumbles, Reading Comprehension

**References:**

1. Verbal Ability & Reading Comprehension by Arun Sharma and Meenakshi Upadhyay
2. Study material for CAT, SAT, GRE, GMAT by TIME, Career Launcher and IMS etc.
3. Quantitative Aptitude by R S Agarwal S Chand Publications
4. Quantitative Aptitude by Pearson Publications

**Course Outcomes:**

1. Solve higher difficulty level questions from all four relevant areas of CAT/ MAT as listed above
2. Practice test-cracking techniques through relevant mock tests

**CO-PO Mapping:**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4
CO1	2			2			3				
CO2	2			2			3				
CO3											
CO4											
CO5											

Note: 1 - Low Correlation 2 - Medium Correlation 3 - High Correlation

**APPROVED IN:**

**BOS :17-09-2021**

**ACADEMIC COUNCIL:17-09-2021**

**SDG No. & Statement:4**

Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.

**SDG Justification:**

Quantitative aptitude, reasoning, verbal and language skills practiced during the preparation for CAT/ MAT tests provide essential skills for achieving inclusive and equitable education and lifelong learning opportunities for oneself and others.

DOSL1001	CLUB ACTIVITY – PARTICIPANT	L	T	P	S	J	C
		0	0	0	2	0	2
Pre-requisite	None						
Co-requisite	None						
Preferable exposure	None						

**Course Description:**

*This course recognizes student participation in multiple activities organized by various student organizations that pursue specific co-curricular and extra-curricular interests. These activities allow students to engage in and identify and pursue their personal interests and hobbies.*

**Course Educational Objectives:**

- Create opportunities for students to participate in a variety of non-academic experiences
- Interact with and learn from peers in a setting without an external performance pressure
- Allow exploration of interesting activities and reflection about these experiences
- Learn to manage time effectively

**List of Student Club Activities:**

1. Music (vocals, instruments, technical, recording, mixing, production, management)
2. Dance (Indian classical, western, jazz, latin, contemporary, folk, production, event management)
3. Theatre (classical, experimental, one-act, street, production, direction, casting, etc.)
4. Arts (fine arts, painting, calligraphy, sketching, caricaturing, etc)
5. Craft (origami, model making, sculpture, pottery, etc)
6. Cooking (home-style, baking, confectionery, Indian, intercontinental, etc.)
7. Graffiti (street, mural, collage, multi media, etc)
8. Workshops, quizzes, debates, elocution, etc
9. Filmmaking (adventure, drama, film appreciation, documentary, etc)
10. Photography (conventional, immersive (360), landscape, portrait, technical, editing, etc.)
11. College Fests
12. Designing (graphic design, landscape, interior, etc)
13. Competitive coding
14. Recreational sports activities
15. Other club activities organized by student clubs



**List of Activities:**

1. Participation in various club-based activities
2. Weekly reflection paper
3. Portfolio (on social media using an Instagram account)
4. Two learning papers (one per semester)

**Textbooks:**

1. Small move: big Change (Caroline Arnold)
2. How to Win at College: Surprising Secrets for Success from the Country's Top Students (Cal Newport)

**References:**

1. Making the most of college: Students speak their minds (author - Richard Light)
2. Failing Forward: Turning Mistakes into Stepping Stones for Success (John C Maxwell)
3. The Last Lecture (Randy Pausch)
4. Lean in (Sheryl Sandberg)
5. YouTube- Introduction to various club activities

**Course Outcomes:**

Upon successful completion of the course, student will be able to

1. Identify personal interest areas
2. Learn from diverse perspectives and experiences
3. Gain exposure to various activities and opportunities for extra-curricular activities
4. Learn to manage time effectively
5. gain confidence

**CO-PO Mapping:**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4
CO1	3	3	3	3	2		2				
CO2	3		3		2		2				
CO3		3	2		3	2					
CO4		3	3		2		3				
CO5	3		3		2		3				

Note: 1 - Correlation 2 - Medium Correlation 3 - High Correlation

**APPROVED IN:**

**BOS :19-07-2021**

**ACADEMIC COUNCIL:19-07-2021**

**SDG No. & Statement:**

SDG 4: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.

**SDG Justification:**

This course recognizes student participation in non-academic events and activities which focus on inclusive partnerships and collaborations with all stakeholders by using all sustainable means to promote lifelong learning.

DOSL1011	CLUB ACTIVITY – MEMBER OF THE CLUB	L	T	P	S	J	C
		0	0	0	2	0	2
<b>Pre-requisite</b>	None						
<b>Co-requisite</b>	None						
<b>Preferable exposure</b>	None						

**Course Description:**

*This course encourages and acknowledges student members' work in organizing events and activities organized by various student organizations that pursue specific co-curricular and extra-curricular interests. These activities allow students to actively learn from the process of conceptualizing and organizing such activities as part of a team.*

**Course Educational Objectives:**

- Create opportunities for students to learn from organizing club activities
- Learn teamwork, leadership, planning and management of events and activities
- Learn to appreciate multiple perspectives, cultures, and individual capabilities
- Learn to manage time effectively

**List of Student Club Activities:**

1. Music (vocals, instruments, technical, recording, mixing, production, management)
2. Dance (Indian classical, western, jazz, latin, contemporary, folk, production, event management)
3. Theatre (classical, experimental, one-act, street, production, direction, casting, etc.)
4. Arts (fine arts, painting, calligraphy, sketching, caricaturing, etc)
5. Craft (origami, model making, sculpture, pottery, etc)
6. Cooking (home-style, baking, confectionery, Indian, intercontinental, etc.)
7. Graffiti (street, mural, collage, multi media, etc)
8. Workshops, quizzes, debates, elocution, etc
9. Filmmaking (adventure, drama, film appreciation, documentary, etc)
10. Photography (conventional, immersive (360), landscape, portrait, technical, editing, etc.)
11. College Fests
12. Designing (graphic design, landscape, interior, etc)
13. Competitive coding
14. Recreational sports activities
15. Other club activities organized by student clubs

**List of Activities:**

1. Be a member of a club and organize activities in that particular interest area
2. Learn from diverse perspectives and experiences
3. Learn to design and execute extra-curricular activities
4. Develop management skills through hands on experience
5. Explore different managerial roles and develop competencies

**Textbooks:**

1. Small move: big Change (Caroline Arnold)
2. How to Win at College: Surprising Secrets for Success from the Country's Top Students (Cal Newport)

**References:**

1. Making the most of college: Students speak their minds (author - Richard Light)
2. Failing Forward: Turning Mistakes into Stepping Stones for Success (John C Maxwell)
3. The Last Lecture (Randy Pausch)
4. Lean in (Sheryl Sandberg)
5. Youtube- Introduction to various club activities

**Course Outcomes:**

Upon successful completion of the course, student will be able to

- Be a member of a club and organize activities in that particular interest area
- Learn from diverse perspectives and experiences
- Learn to design and execute extra-curricular activities
- Develop management skills through hands on experience
- Explore different managerial roles and develop competencies

**CO-PO Mapping:**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4
CO1	3	3	3	3	2		2				
CO2	3		3		2		2				
CO3		3	2		3	2					
CO4		3	3		2		3				
CO5	3		3		2		3				

Note: 1 - Low Correlation 2 - Medium Correlation 3 - High Correlation

**APPROVED IN:**

**BOS :19-07-2021**

**ACADEMIC COUNCIL:19-07-2021**

**SDG No. & Statement:**

SDG 16: Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

SDG17 : Strengthen the means of implementation and revitalize the global partnership for sustainable development

**SDG Justification:**

This course recognizes student participation in community service endeavours focussing on sustainable development, service to communities. This allows students to develop empathy, citizenship behaviour and inclusive community values.

DOSL1021	CLUB ACTIVITY – LEADER OF THE CLUB	L	T	P	S	J	C
		0	0	0	2	0	2
Pre-requisite	None						
Co-requisite	None						
Preferable exposure	None						

**Course Description:**

*This course encourages and recognizes student members' work in leading the student organization through various leadership roles. As leaders they work not just to organize events and activities in specific co-curricular and extra-curricular interests, but also lead the teams that form the core members of the clubs. These activities allow students to learn and practice leadership and management skills through real world experience.*

**Course Educational Objectives:**

- Create opportunities for students to learn from organizing club activities
- Learn teamwork, leadership, planning and management of events and activities
- Learn to appreciate multiple perspectives, cultures, and individual capabilities
- Learn to manage time effectively

**List of Student Club Activities:**

1. Music (vocals, instruments, technical, recording, mixing, production, management)
2. Dance (Indian classical, western, jazz, latin, contemporary, folk, production, event management)
3. Theatre (classical, experimental, one-act, street, production, direction, casting, etc.)
4. Arts (fine arts, painting, calligraphy, sketching, caricaturing, etc)
5. Craft (origami, model making, sculpture, pottery, etc)
6. Cooking (home-style, baking, confectionery, Indian, intercontinental, etc.)
7. Graffiti (street, mural, collage, multimedia, etc)
8. Workshops, quizzes, debates, elocution, etc
9. Filmmaking (adventure, drama, film appreciation, documentary, etc)
10. Photography (conventional, immersive (360), landscape, portrait, technical, editing, etc.)
11. College Fests
12. Designing (graphic design, landscape, interior, etc)
13. Competitive coding
14. Recreational sports activities
15. Other club activities organized by student clubs

**List of Activities:**

1. Be the leader of the club and implement the charter, vision and mission of the club
2. Learn from diverse perspectives and experiences
3. Learn to lead the team, design and execute extra-curricular activities
4. Develop management skills through hands on experience
5. Explore different managerial roles and develop competencies

**Textbooks:**

1. Small move: big Change (Caroline Arnold)
2. How to Win at College: Surprising Secrets for Success from the Country's Top Students(Cal Newport)

**References:**

1. Making the most of college: Students speak their minds (author - Richard Light)
2. Failing Forward: Turning Mistakes into Stepping Stones for Success (John C Maxwell)
3. The Last Lecture (Randy Pausch)
4. Lean in (Sheryl Sandberg)
5. Youtube- Introduction to various club activities

**Course Outcomes:**

Upon successful completion of the course, student will be able to

- Be the leader of the club and implement the charter, vision and mission of the club
- Learn from diverse perspectives and experiences
- Learn to lead the team, design and execute extra-curricular activities
- Develop management skills through hands on experience
- Explore different managerial roles and develop competencies

**CO-PO Mapping:**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4
CO1	3	3	3	3	2		2				
CO2	3		3		2		2				
CO3		3	2		3	2					
CO4		3	3		2		3				
CO5	3		3		2		3				

Note: 1 - Low Correlation 2 - Medium Correlation 3 - High Correlation

**APPROVED IN:**

**BOS :19-07-2021**

**ACADEMIC COUNCIL:19-07-2021**

**SDG No. & Statement:**

SDG 16: Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

SDG17 : Strengthen the means of implementation and revitalize the global partnership for sustainable development

**SDG Justification:**

This course recognizes student participation in community service endeavours focussing on sustainable development, service to communities. This allows students to develop empathy, citizenship behaviour and inclusive community values.



DOSL1031	CLUB ACTIVITY – COMPETITOR	L	T	P	S	J	C
		0	0	0	2	0	2
Pre-requisite	None						
Co-requisite	None						
Preferable exposure	None						

**Course Description:**

*This course encourages and recognizes student members' work in leading the student organization through various leadership roles. As leaders they work not just to organize events and activities in specific co-curricular and extra-curricular interests, but also lead the teams that form the core members of the clubs. These activities allow students to learn and practice leadership and management skills through real world experience.*

**Course Educational Objectives:**

- Create opportunities for students to learn from organizing club activities
- Learn teamwork, leadership, planning and management of events and activities
- Learn to appreciate multiple perspectives, cultures, and individual capabilities
- Learn to manage time effectively

**List of Student Club Activities:**

1. Music (vocals, instruments, technical, recording, mixing, production, management)
2. Dance (Indian classical, western, jazz, latin, contemporary, folk, production, event management)
3. Theatre (classical, experimental, one-act, street, production, direction, casting, etc.)
4. Arts (fine arts, painting, calligraphy, sketching, caricaturing, etc)
5. Craft (origami, model making, sculpture, pottery, etc)
6. Cooking (home-style, baking, confectionery, Indian, intercontinental, etc.)
7. Graffiti (street, mural, collage, multimedia, etc)
8. Workshops, quizzes, debates, elocution, etc
9. Filmmaking (adventure, drama, film appreciation, documentary, etc)
10. Photography (conventional, immersive (360), landscape, portrait, technical, editing, etc.)
11. College Fests
12. Designing (graphic design, landscape, interior, etc)
13. Competitive coding
14. Recreational sports activities

15. Other club activities organized by student clubs

**List of Activities:**

1. Be the leader of the club and implement the charter, vision and mission of the club
2. Learn from diverse perspectives and experiences
3. Learn to lead the team, design and execute extra-curricular activities
4. Develop management skills through hands on experience
5. Explore different managerial roles and develop competencies

**Textbooks:**

1. Small move: big Change (Caroline Arnold)
2. How to Win at College: Surprising Secrets for Success from the Country's Top Students (Cal Newport)

**References:**

1. Making the most of college: Students speak their minds (author - Richard Light)
2. Failing Forward: Turning Mistakes into Stepping Stones for Success (John C Maxwell)
3. The Last Lecture (Randy Pausch)
4. Lean in (Sheryl Sandberg)
5. Youtube- Introduction to various club activities

**Course Outcomes:**

Upon successful completion of the course, student will be able to

1. Be the leader of the club and implement the charter, vision and mission of the club
2. Learn from diverse perspectives and experiences
3. Learn to lead the team, design and execute extra-curricular activities
4. Develop management skills through hands on experience
5. Explore different managerial roles and develop competencies

**CO-PO Mapping:**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4
CO1	3	3	3	3	2		2				
CO2	3		3		2		2				
CO3		3	2		3	2					
CO4		3	3		2		3				
CO5	3		3		2		3				

Note: 1 - Low Correlation 2 - Medium Correlation 3 - High Correlation

**APPROVED IN:**

**BOS :19-07-2021**

**ACADEMIC COUNCIL:19-07-2021**

**SDG No. & Statement:**

SDG 16: Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

SDG17 : Strengthen the means of implementation and revitalize the global partnership for sustainable development

**SDG Justification:**

This course recognizes student participation in community service endeavours focussing on sustainable development, service to communities. This allows students to develop empathy, citizenship behaviour and inclusive community values.

<b>DOSL1041</b>	<b>COMMUNITY SERVICES - VOLUNTEER</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>J</b>	<b>C</b>
		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>2</b>
<b>Pre-requisite</b>	None						
<b>Co-requisite</b>	None						
<b>Preferable exposure</b>	None						

**Course Description:**

*This course recognizes student participation in Community service activities organized by various student organizations and other Government and non-government organizations that exist for providing service to communities. These activities allow students to develop empathy, citizenship behaviour and community values.*

**Course Educational Objectives:**

- To help students develop empathy and citizenship behavior
- Enable students to develop an altruistic attitude and community development sensibility
- Allow exploration of community service activities and reflect about these experiences
- Learn to work in small and large teams for achieving community objectives

**List of Community Service Activities:**

1. Community Health Services
2. Swachh Bharat Abhiyan and other Cleanliness drives
3. Tree Plantation and similar environmental conservation initiatives
4. Rain water harvesting awareness and implementation
5. Fundraising and visits to Orphanages, Old-age homes, etc.
6. Health and disease awareness programs
7. Working with NGOs
8. Disaster mitigation and management training and relief work
9. Rural Upliftment projects
10. Campus awareness and action projects (cleanliness, anti-ragging, blood donation, etc)
11. Community investigations and surveys for development research
12. Educational support for underprivileged (remedial classes, coaching, training, etc)
13. Service camps
14. Advocacy and information literacy initiatives
15. Other activities serving local communities

**List of Activities:**

1. Participation in various community service activities
2. Weekly reflection paper
3. Portfolio (on social media using an instagram account)
4. Two learning papers (one per semester)

**Text Books:**

1. Soul of a citizen: living with conviction in Challenging times (author: Paul Rogat Loeb)
2. Community Services intervention: Vera Lloyd

**References:**

1. A path appears: Transforming lives, creating opportunities (Nicholas Kristof and SherylWuDunn)
2. The story of My Experiments with Truth (author: M. K. Gandhi)

**Course Outcomes:**

1. Experience of volunteering in a variety of Community service activities
2. Gaining empathy for lesser privileged sections of society by experience
3. Understanding the process of generating community awareness
4. Understanding Disaster management and relief through training and experience
5. Developing environmental and sustainability awareness

**CO-PO Mapping:**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4
CO1	3	3					2				
CO2		3	3				2				
CO3				3	3	2	2				
CO4		3	3								
CO5	3		3				3				

Note: 1 - Low Correlation 2 - Medium Correlation 3 - High Correlation

**APPROVED IN:**

**BOS :19-07-2021**

**ACADEMIC COUNCIL:19-07-2021**

**SDG No. & Statement:**

SDG 16: Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

SDG17 : Strengthen the means of implementation and revitalize the global partnership for sustainable development

**SDG Justification:**

This course recognizes student participation in community service endeavours focussing on sustainable development, service to communities. This allows students to develop empathy, citizenship behaviour and inclusive community values.

<b>DOSL1051</b>	<b>COMMUNITY SERVICES - MOBILIZER</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>J</b>	<b>C</b>
		<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>2</b>
<b>Pre-requisite</b>	None						
<b>Co-requisite</b>	None						
<b>Preferable exposure</b>	None						

**Course Description:**

*This course recognizes student leadership in mobilizing community service activities as members of various student organizations or other Government and non-government organizations that exist for providing service to communities. These activities allow students to develop leadership, management skills, empathy, citizenship behavior and community values.*

**Course Educational Objectives:**

- To help students understand leadership in a community environment
- Enable students to develop an altruistic attitude and community development sensibility
- Allow deep understanding of community service through practical experience
- Learn to lead small and large teams for achieving community objectives

**List of Community Service Activities:**

1. Community Health Services
2. Swachh Bharat Abhiyan and other Cleanliness drives
3. Tree Plantation and similar environmental conservation initiatives
4. Rain water harvesting awareness and implementation
5. Fundraising and visits to Orphanages, Old-age homes, etc.
6. Health and disease awareness programs
7. Working with NGOs
8. Disaster mitigation and management training and relief work
9. Rural Upliftment projects
10. Campus awareness and action projects (cleanliness, anti-ragging, blood donation, etc)
11. Community investigations and surveys for development research
12. Educational support for underprivileged (remedial classes, coaching, training, etc)
13. Service camps
14. Advocacy and information literacy initiatives
15. Other activities serving local communities

**List of Activities:**

1. Organizing and leading teams in various community service activities
2. Fortnightly reflection paper
3. Portfolio (on social media using an Instagram account)
4. Two learning papers (one per semester)

**Textbooks:**

1. Soul of a citizen: living with conviction in Challenging times (author: Paul Rogat Loeb)
2. Community Services intervention: Vera Lloyd

**References:**

1. A path appears: Transforming lives, creating opportunities (Nicholas Kristof and SherylWuDunn)
2. The story of My Experiments with Truth (author: M. K. Gandhi)
3. List of student run and other Government and non- government community service organizations

**Course Outcomes:**

1. Experience of mobilizing and executing Community service activities
2. Providing opportunities for community service volunteering for other fellowstudents
3. Understanding the process of mobilizing cash, kind and volunteer support
4. Building leadership and management skills
5. Building empathy and citizenship behavior

**CO-PO Mapping:**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4
CO1	3	3					2				
CO2		3	3				2				
CO3				3	3	2	2				
CO4		3	3								
CO5	3		3				3				

Note: 1 - Low Correlation 2 - Medium Correlation 3 - High Correlation



**APPROVED IN:**

**BOS :19-07-2021**

**ACADEMIC COUNCIL:19-07-2021**

**SDG No. & Statement:**

SDG 16: Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

SDG17 : Strengthen the means of implementation and revitalize the global partnership for sustainable development

**SDG Justification:**

This course recognizes student participation in community service endeavours focussing on sustainable development, service to communities. This allows students to develop empathy, citizenship behaviour and inclusive community values.

<b>DOSP1001</b>	<b>BADMINTON</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>J</b>	<b>C</b>
		<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>2</b>
<b>Pre-requisite</b>	None						
<b>Co-requisite</b>	None						
<b>Preferable exposure</b>	None						

**Course Description:**

*This course provides instruction and the opportunity for participation in sports and physical fitness activities. Skills, strategies, rules, and personal wellness goals are included as appropriate. This course will provide students with an understanding of the fundamental concepts of the physiological functions and training principles associated with the chosen sport.*

**Course Educational Objectives:**

- Understand training principles used in the sport
- Demonstrate knowledge of the game in a recreational /competitive play setting
- Organize an event around the sport
- Demonstrate concepts of warm up, game conditioning, training plans

**List of Activities:**

1. Watch a sport documentary / training video / game history
2. On field coaching and demonstration session
3. Guided practice and play
4. Event management & game officiating
5. Friendly competitions and structured matches

**Instructional Plan:**

1. Introduction to Badminton - History and development
2. Rules of the Game, Play Area & dimensions
3. Fundamental Skills - Badminton: Grips - Racket, shuttle
4. Sports Specific fitness and warmup drills
5. Stances and footwork
6. Badminton Gameplay: Service, Forehand, Backhand
7. Preparatory Drills and Fun Games
8. Game Variations: Singles/ Doubles/ Mixed

**References:**

1. Handbook of the Badminton World Federation (BWF)

**Course Outcomes:**

1. Learn to play Badminton
2. Understanding of the fundamental concepts such as rules of play, game variations
3. Understanding of the governing structure and administration of the sport
4. Understand the event management of the sport
5. Apply sport concepts into an active physical lifestyle

**CO-PO Mapping:**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4
<b>CO1</b>	3	2	2				3				
<b>CO2</b>							2				
<b>CO3</b>							2				
<b>CO4</b>		3	3		2		2				
<b>CO5</b>				3	2		3				

Note: 1 - Low Correlation 2 - Medium Correlation 3 - High Correlation

**APPROVED IN:**

**BOS :19-07-2021**

**ACADEMIC COUNCIL:19-07-2021**

**SDG No. & Statement:4**

Good Health and Well-being: Ensure healthy lives and promote well-being for all at all ages.

**SDG Justification:**

The nature of the course facilitates students to engage in various forms of fitness activities and sports-related movements that work on their overall health and wellness. The course focuses on inculcating active living as a lifestyle by making sports fun, engaging and meaningful.

<b>OSP1011</b>	<b>CHESS</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>J</b>	<b>C</b>
		<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>2</b>
<b>Pre-requisite</b>	None						
<b>Co-requisite</b>	None						
<b>Preferable exposure</b>	None						

**Course Description:**

*This course provides instruction and the opportunity for participation in sports and physical fitness activities. Skills, strategies, rules, and personal wellness goals are included as appropriate. This course will provide students with an understanding of the fundamental concepts of the physiological functions and training principles associated with the chosen sport.*

**Course Educational Objectives:**

- Understand training principles used in the sport
- Demonstrate knowledge of the game in a recreational /competitive play setting
- Organize an event around the sport
- Demonstrate concepts of warm up, game conditioning, training plans

**List of Activities:**

1. Watch a sport documentary / training video / game history
2. On field coaching and demonstration session
3. Guided practice and play
4. Event management & game officiating
5. Friendly competitions and structured matches

**Instructional Plan:**

1. Introduction to Chess - History and development
2. Rules of the Game, Play Area & dimensions
3. Fundamental Skills - Chess: Pieces & functions, basic play
4. Chess board moves & terminology
5. Chess Gameplay: Openings, castling, strategies & tactics
6. Preparatory Drills and Fun Games
7. Game Variations & Officiating

**References:**

1. International Chess Federation (FIDE) Handbook

**Course Outcomes:**

1. Learn to play Chess
2. Understanding of the fundamental concepts such as rules of play, game variations
3. Understanding of the governing structure and administration of the sport
4. Understand the event management of the sport
5. Apply sport concepts into an active physical lifestyle

**CO-PO Mapping:**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4
CO1	3	2	2				3				
CO2							2				
CO3							2				
CO4		3	3		2		2				
CO5				3	2		3				

Note: 1 - Low Correlation 2 - Medium Correlation 3 - High Correlation

**APPROVED IN:**

**BOS :19-07-2021**

**ACADEMIC COUNCIL:19-07-2021**

**SDG No. & Statement:4**

Good Health and Well-being: Ensure healthy lives and promote well-being for all at all ages.

**SDG Justification:**

The nature of the course facilitates students to engage in various forms of fitness activities and sports-related movements that work on their overall health and wellness. The course focuses on inculcating active living as a lifestyle by making sports fun, engaging and meaningful.

<b>DOSP1021</b>	<b>CARROM</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>J</b>	<b>C</b>
		<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>2</b>
<b>Pre-requisite</b>	None						
<b>Co-requisite</b>	None						
<b>Preferable exposure</b>	None						

**Course Description:**

*This course provides instruction and the opportunity for participation in sports and physical fitness activities. Skills, strategies, rules, and personal wellness goals are included as appropriate. This course will provide students with an understanding of the fundamental concepts of the physiological functions and training principles associated with the chosen sport.*

**Course Educational Objectives:**

- Understand training principles used in the sport
- Demonstrate knowledge of the game in a recreational /competitive play setting
- Organize an event around the sport
- Demonstrate concepts of warm up, game conditioning, training plans

**List of Activities:**

1. Watch a sport documentary / training video / game history
2. On field coaching and demonstration session
3. Guided practice and play
4. Event management & game officiating
5. Friendly competitions and structured matches

**Instructional Plan:**

1. Introduction to Carrom - History and development
2. Rules of the Game, Board components & dimensions
3. Fundamental Skills - Carrom: - Striking
4. Gameplay – General
5. Preparatory Drills and Fun Games
6. Game Variations: Singles/ Doubles/ Mixed
7. Preparatory Drills and Fun Games

**References:**

1. Indian Carrom Federation Handbook - Laws

**Course Outcomes:**

1. Learn to play Carrom
2. Understanding of the fundamental concepts such as rules of play, game variations
3. Understanding of the governing structure and administration of the sport
4. Understand the event management of the sport
5. Apply sport concepts into an active physical lifestyle

**CO-PO Mapping:**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4
CO1	3	2	2				3				
CO2							2				
CO3							2				
CO4		3	3		2		2				
CO5				3	2		3				

Note: 1 - Low Correlation 2 - Medium Correlation 3 - High Correlation

**APPROVED IN:**

**BOS :19-07-2021**

**ACADEMIC COUNCIL:19-07-2021**

**SDG No. & Statement:4**

Good Health and Well-being: Ensure healthy lives and promote well-being for all at all ages.

**SDG Justification:**

The nature of the course facilitates students to engage in various forms of fitness activities and sports-related movements that work on their overall health and wellness. The course focuses on inculcating active living as a lifestyle by making sports fun, engaging and meaningful.

<b>DOSP1031</b>	<b>FOOTBALL</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>J</b>	<b>C</b>
		<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>2</b>
<b>Pre-requisite</b>	None						
<b>Co-requisite</b>	None						
<b>Preferable exposure</b>	None						

**Course Description:**

*This course provides instruction and the opportunity for participation in sports and physical fitness activities. Skills, strategies, rules, and personal wellness goals are included as appropriate. This course will provide students with an understanding of the fundamental concepts of the physiological functions and training principles associated with the chosen sport.*

**Course Educational Objectives:**

- Understand training principles used in the sport
- Demonstrate knowledge of the game in a recreational /competitive play setting
- Organize an event around the sport
- Demonstrate concepts of warm up, game conditioning, training plans

**List of Activities:**

1. Watch a sport documentary / training video / game history
2. On field coaching and demonstration session
3. Guided practice and play
4. Event management & game officiating
5. Friendly competitions and structured matches

**Instructional Plan:**

1. Introduction to Football - History and development
2. Rules of the Game, Play Area & dimensions
3. Fundamental Skills - Kicking, heading, ball control, Keeping
4. Movement, throwins, tackling, defense, scoring, defense
5. Gameplay- Formations, passing, FKs, CKs, PK, tactics
6. Preparatory Drills and Fun Games
7. Game Variations: Small sided games, 7v7, 11v11



**References:**

1. FIFA Laws of the Game

**Course Outcomes:**

1. Learn to play Football
2. Understanding of the fundamental concepts such as rules of play, game variations
3. Understanding of the governing structure and administration of the sport
4. Understand the event management of the sport
5. Apply sport concepts into an active physical lifestyle

**CO-PO Mapping:**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4
CO1	3	2	2				3				
CO2							2				
CO3							2				
CO4		3	3		2		2				
CO5				3	2		3				

Note: 1 - Low Correlation 2 - Medium Correlation 3 - High Correlation

**APPROVED IN:**

**BOS :19-07-2021**

**ACADEMIC COUNCIL:19-07-2021**

**SDG No. & Statement:4**

Good Health and Well-being: Ensure healthy lives and promote well-being for all at all ages.

**SDG Justification:**

The nature of the course facilitates students to engage in various forms of fitness activities and sports-related movements that work on their overall health and wellness. The course focuses on inculcating active living as a lifestyle by making sports fun, engaging and meaningful.

<b>DOSP1041</b>	<b>VOLLEYBALL</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>J</b>	<b>C</b>
		<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>2</b>
<b>Pre-requisite</b>	None						
<b>Co-requisite</b>	None						
<b>Preferable exposure</b>	None						

**Course Description:**

*This course provides instruction and the opportunity for participation in sports and physical fitness activities. Skills, strategies, rules, and personal wellness goals are included as appropriate. This course will provide students with an understanding of the fundamental concepts of the physiological functions and training principles associated with the chosen sport.*

**Course Educational Objectives:**

- Understand training principles used in the sport
- Demonstrate knowledge of the game in a recreational /competitive play setting
- Organize an event around the sport
- Demonstrate concepts of warm up, game conditioning, training plans

**List of Activities:**

1. Watch a sport documentary / training video / game history
2. On field coaching and demonstration session
3. Guided practice and play
4. Event management & game officiating
5. Friendly competitions and structured matches

**Instructional Plan:**

1. Introduction to Volley - History and development
2. Rules of the Game, Play Area & dimensions
3. Fundamental Skills - Striking, Ball control, Lifting
4. Sports Specific fitness and warmup drills
5. Stances and footwork
6. Preparatory Drills and Fun Games
7. Gameplay: Jumps, strikes, layoffs, attack, defense

**References:**

1. FIVB - Official Volleyball Rules

**Course Outcomes:**

1. Learn to play Volleyball
2. Understanding of the fundamental concepts such as rules of play, game variations
3. Understanding of the governing structure and administration of the sport
4. Understand the event management of the sport
5. Apply sport concepts into an active physical lifestyle

**CO-PO Mapping:**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4
<b>CO1</b>	3	2	2				3				
<b>CO2</b>							2				
<b>CO3</b>							2				
<b>CO4</b>		3	3		2		2				
<b>CO5</b>				3	2		3				

Note: 1 - Low Correlation 2 - Medium Correlation 3 - High Correlation

**APPROVED IN:**

**BOS :19-07-2021**

**ACADEMIC COUNCIL:19-07-2021**

**SDG No. & Statement:4**

Good Health and Well-being: Ensure healthy lives and promote well-being for all at all ages.

**SDG Justification:**

The nature of the course facilitates students to engage in various forms of fitness activities and sports-related movements that work on their overall health and wellness. The course focuses on inculcating active living as a lifestyle by making sports fun, engaging and meaningful.

<b>DOSP1051</b>	<b>KABADDI</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>J</b>	<b>C</b>
		<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>2</b>
<b>Pre-requisite</b>	None						
<b>Co-requisite</b>	None						
<b>Preferable exposure</b>	None						

**Course Description:**

*This course provides instruction and the opportunity for participation in sports and physical fitness activities. Skills, strategies, rules, and personal wellness goals are included as appropriate. This course will provide students with an understanding of the fundamental concepts of the physiological functions and training principles associated with the chosen sport.*

**Course Educational Objectives:**

- Understand training principles used in the sport
- Demonstrate knowledge of the game in a recreational /competitive play setting
- Organize an event around the sport
- Demonstrate concepts of warm up, game conditioning, training plans

**List of Activities:**

1. Watch a sport documentary / training video / game history
2. On field coaching and demonstration session
3. Guided practice and play
4. Event management & game officiating
5. Friendly competitions and structured matches

**Instructional Plan:**

1. Introduction to Kabaddi - History and development
2. Rules of the Game, Play Area & dimensions
3. Fundamental Skills - Raiding, catching
4. Sports Specific fitness and warmup drills
5. Stances and footwork
6. Preparatory Drills and Fun Games
7. Gameplay: Chain system movement

**References:**

1. Amateur Kabaddi Federation of India (AKFI) - Official Rules
2. Rules of Kabaddi - International Kabaddi Federation

**Course Outcomes:**

1. Learn to play Kabaddi
2. Understanding of the fundamental concepts such as rules of play, game variations
3. Understanding of the governing structure and administration of the sport
4. Understand the event management of the sport
5. Apply sport concepts into an active physical lifestyle

**CO-PO Mapping:**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4
CO1	3	2	2				3				
CO2							2				
CO3							2				
CO4		3	3		2		2				
CO5				3	2		3				

Note: 1 - Low Correlation 2 - Medium Correlation 3 - High Correlation

**APPROVED IN:**

**BOS :19-07-2021**

**ACADEMIC COUNCIL:19-07-2021**

**SDG No. & Statement:4**

Good Health and Well-being: Ensure healthy lives and promote well-being for all at all ages.

**SDG Justification:**

The nature of the course facilitates students to engage in various forms of fitness activities and sports-related movements that work on their overall health and wellness. The course focuses on inculcating active living as a lifestyle by making sports fun, engaging and meaningful.

<b>DOSP1061</b>	<b>KHO KHO</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>J</b>	<b>C</b>
		<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>2</b>
<b>Pre-requisite</b>	None						
<b>Co-requisite</b>	None						
<b>Preferable exposure</b>	None						

**Course Description:**

*This course provides instruction and the opportunity for participation in sports and physical fitness activities. Skills, strategies, rules, and personal wellness goals are included as appropriate. This course will provide students with an understanding of the fundamental concepts of the physiological functions and training principles associated with the chosen sport.*

**Course Educational Objectives:**

- Understand training principles used in the sport
- Demonstrate knowledge of the game in a recreational /competitive play setting
- Organize an event around the sport
- Demonstrate concepts of warm up, game conditioning, training plans

**List of Activities:**

1. Watch a sport documentary / training video / game history
2. On field coaching and demonstration session
3. Guided practice and play
4. Event management & game officiating
5. Friendly competitions and structured matches

**Instructional Plan:**

1. Introduction to Kho Kho - History and development
2. Rules of the Game, Play Area & dimensions
3. Fundamental Skills: Sitting, giving Kho, Pole dive
4. Sports Specific fitness and warmup drills
5. Stances and footwork: Running, sitting
6. Gameplay: Running strategies, ring method, chain method
7. Preparatory Drills and Fun Games

**References:**

1. Khelo India Official Rulebook of Kho Kho

**Course Outcomes:**

1. Learn to play Kho Kho
2. Understanding of the fundamental concepts such as rules of play, game variations
3. Understanding of the governing structure and administration of the sport
4. Understand the event management of the sport
5. Apply sport concepts into an active physical lifestyle

**CO-PO Mapping:**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4
CO1	3	2	2				3				
CO2							2				
CO3							2				
CO4		3	3		2		2				
CO5				3	2		3				

Note: 1 - Low Correlation 2 - Medium Correlation 3 - High Correlation

**APPROVED IN:**

**BOS :19-07-2021**

**ACADEMIC COUNCIL:19-07-2021**

**SDG No. & Statement:4**

Good Health and Well-being: Ensure healthy lives and promote well-being for all at all ages.

**SDG Justification:**

The nature of the course facilitates students to engage in various forms of fitness activities and sports-related movements that work on their overall health and wellness. The course focuses on inculcating active living as a lifestyle by making sports fun, engaging and meaningful.

<b>DOSP1071</b>	<b>TABLE TENNIS</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>J</b>	<b>C</b>
		<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>2</b>
<b>Pre-requisite</b>	None						
<b>Co-requisite</b>	None						
<b>Preferable exposure</b>	None						

**Course Description:**

*This course provides instruction and the opportunity for participation in sports and physical fitness activities. Skills, strategies, rules, and personal wellness goals are included as appropriate. This course will provide students with an understanding of the fundamental concepts of the physiological functions and training principles associated with the chosen sport.*

**Course Educational Objectives:**

- Understand training principles used in the sport
- Demonstrate knowledge of the game in a recreational /competitive play setting
- Organize an event around the sport
- Demonstrate concepts of warm up, game conditioning, training plans

**List of Activities:**

1. Watch a sport documentary / training video / game history
2. On field coaching and demonstration session
3. Guided practice and play
4. Event management & game officiating
5. Friendly competitions and structured matches

**Instructional Plan:**

1. Introduction to Table Tennis - History and development
2. Rules of the Game, Play Area & dimensions
3. Fundamental Skills - TT: Grips - Racket, ball
4. Stances and footwork
5. TT Gameplay- Forehand, Backhand, Side Spin, High Toss. Strokes-Push, Chop, Drive, Half Volley, Smash, Drop-shot, Balloon, Flick, Loop Drive.
6. Preparatory Drills and Fun Games
7. Game Variations: Singles/ Doubles/ Mixed



**References:**

1. Handbook of the International Table Tennis Federation (ITTF)

**Course Outcomes:**

1. Learn to play Table Tennis
2. Understanding of the fundamental concepts such as rules of play, game variations
3. Understanding of the governing structure and administration of the sport
4. Understand the event management of the sport
5. Apply sport concepts into an active physical lifestyle

**CO-PO Mapping:**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PS01	PSO2	PSO3	PSO4
CO1	3	2	2				3				
CO2							2				
CO3							2				
CO4		3	3		2		2				
CO5				3	2		3				

Note: 1 - Low Correlation 2 - Medium Correlation 3 - High Correlation

**APPROVED IN:**

**BOS :19-07-2021**

**ACADEMIC COUNCIL:19-07-2021**

**SDG No. & Statement:4**

Good Health and Well-being: Ensure healthy lives and promote well-being for all at all ages.

**SDG Justification:**

The nature of the course facilitates students to engage in various forms of fitness activities and sports-related movements that work on their overall health and wellness. The course focuses on inculcating active living as a lifestyle by making sports fun, engaging and meaningful.

<b>DOSP1081</b>	<b>HANDBALL</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>J</b>	<b>C</b>
		<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>2</b>
<b>Pre-requisite</b>	None						
<b>Co-requisite</b>	None						
<b>Preferable exposure</b>	None						

**Course Description:**

*This course provides instruction and the opportunity for participation in sports and physical fitness activities. Skills, strategies, rules, and personal wellness goals are included as appropriate. This course will provide students with an understanding of the fundamental concepts of the physiological functions and training principles associated with the chosen sport.*

**Course Educational Objectives:**

- Understand training principles used in the sport
- Demonstrate knowledge of the game in a recreational /competitive play setting
- Organize an event around the sport
- Demonstrate concepts of warm up, game conditioning, training plans

**List of Activities:**

1. Watch a sport documentary / training video / game history
2. On field coaching and demonstration session
3. Guided practice and play
4. Event management & game officiating
5. Friendly competitions and structured matches

**Instructional Plan:**

1. Introduction to Handball - History and development
2. Rules of the Game, Play Area & dimensions
3. Fundamental Skills - Handball: Throwing, Ball control, Movement
4. Sports Specific fitness and warmup drills
5. Stances and footwork: Jumps, dribbles, catching, throws
6. Gameplay: Shots, throws, movements, attack, defense
7. Preparatory Drills and Fun Games

**References:**

1. International Handball Federation - Rules of the Game & Regulations

**Course Outcomes:**

1. Learn to play Handball
2. Understanding of the fundamental concepts such as rules of play, game variations
3. Understanding of the governing structure and administration of the sport
4. Understand the event management of the sport
5. Apply sport concepts into an active physical lifestyle

**CO-PO Mapping:**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4
CO1	3	2	2				3				
CO2							2				
CO3							2				
CO4		3	3		2		2				
CO5				3	2		3				

Note: 1 - Low Correlation 2 - Medium Correlation 3 - High Correlation

**APPROVED IN:**

**BOS :19-07-2021**

**ACADEMIC COUNCIL:19-07-2021**

**SDG No. & Statement:4**

Good Health and Well-being: Ensure healthy lives and promote well-being for all at all ages.

**SDG Justification:**

The nature of the course facilitates students to engage in various forms of fitness activities and sports-related movements that work on their overall health and wellness. The course focuses on inculcating active living as a lifestyle by making sports fun, engaging and meaningful.

<b>DOSP1091</b>	<b>BASKETBALL</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>J</b>	<b>C</b>
		<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>2</b>
<b>Pre-requisite</b>	None						
<b>Co-requisite</b>	None						
<b>Preferable exposure</b>	None						

**Course Description:**

*This course provides instruction and the opportunity for participation in sports and physical fitness activities. Skills, strategies, rules, and personal wellness goals are included as appropriate. This course will provide students with an understanding of the fundamental concepts of the physiological functions and training principles associated with the chosen sport.*

**Course Educational Objectives:**

- Understand training principles used in the sport
- Demonstrate knowledge of the game in a recreational /competitive play setting
- Organize an event around the sport
- Demonstrate concepts of warm up, game conditioning, training plans

**List of Activities:**

1. Watch a sport documentary / training video / game history
2. On field coaching and demonstration session
3. Guided practice and play
4. Event management & game officiating
5. Friendly competitions and structured matches

**Instructional Plan:**

1. Introduction to Basketball - History and development
2. Rules of the Game, Play Area & dimensions
3. Fundamental Skills - Passing, Receiving, Dribbling
4. Sports Specific fitness and warmup drills
5. Stances and footwork: Jumps, dribbles, catching, throws
6. Preparatory Drills and Fun Games
7. Gameplay: Shots, throws, movements, attack, defense

**References:**

1. FIBA Basketball Official Rules

**Course Outcomes:**

1. Learn to play Basketball
2. Understanding of the fundamental concepts such as rules of play, game variations
3. Understanding of the governing structure and administration of the sport
4. Understand the event management of the sport
5. Apply sport concepts into an active physical lifestyle

**CO-PO Mapping:**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4
CO1	3	2	2				3				
CO2							2				
CO3							2				
CO4		3	3		2		2				
CO5				3	2		3				

Note: 1 - Low Correlation 2 - Medium Correlation 3 - High Correlation

**APPROVED IN:**

**BOS :19-07-2021**

**ACADEMIC COUNCIL:19-07-2021**

**SDG No. & Statement:4**

Good Health and Well-being: Ensure healthy lives and promote well-being for all at all ages.

**SDG Justification:**

The nature of the course facilitates students to engage in various forms of fitness activities and sports-related movements that work on their overall health and wellness. The course focuses on inculcating active living as a lifestyle by making sports fun, engaging and meaningful.

<b>DOSP1101</b>	<b>TENNIS</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>J</b>	<b>C</b>
		<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>2</b>
<b>Pre-requisite</b>	None						
<b>Co-requisite</b>	None						
<b>Preferable exposure</b>	None						

**Course Description:**

*This course provides instruction and the opportunity for participation in sports and physical fitness activities. Skills, strategies, rules, and personal wellness goals are included as appropriate. This course will provide students with an understanding of the fundamental concepts of the physiological functions and training principles associated with the chosen sport.*

**Course Educational Objectives:**

- Understand training principles used in the sport
- Demonstrate knowledge of the game in a recreational /competitive play setting
- Organize an event around the sport
- Demonstrate concepts of warm up, game conditioning, training plans

**List of Activities:**

1. Watch a sport documentary / training video / game history
2. On field coaching and demonstration session
3. Guided practice and play
4. Event management & game officiating
5. Friendly competitions and structured matches

**Instructional Plan:**

1. Introduction to Tennis - History and development
2. Rules of the Game, Play Area & dimensions
3. Fundamental Skills - Tennis: Grips - Racket, ball
4. Stances and footwork
5. Gameplay- Forehand, Backhand, Service, volley, smash
6. Preparatory Drills and Fun Games
7. Game Variations: Singles/ Doubles/ Mixed

**References:**

1. Handbook of the International Tennis Federation (ITF)

**Course Outcomes:**

1. Learn to play Tennis
2. Understanding of the fundamental concepts such as rules of play, game variations
3. Understanding of the governing structure and administration of the sport
4. Understand the event management of the sport
5. Apply sport concepts into an active physical lifestyle

**CO-PO Mapping:**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4
CO1	3	2	2				3				
CO2							2				
CO3							2				
CO4		3	3		2		2				
CO5				3	2		3				

Note: 1 - Low Correlation 2 - Medium Correlation 3 - High Correlation

**APPROVED IN:**

**BOS :19-07-2021**

**ACADEMIC COUNCIL:19-07-2021**

**SDG No. & Statement:4**

Good Health and Well-being: Ensure healthy lives and promote well-being for all at all ages.

**SDG Justification:**

The nature of the course facilitates students to engage in various forms of fitness activities and sports-related movements that work on their overall health and wellness. The course focuses on inculcating active living as a lifestyle by making sports fun, engaging and meaningful.

<b>DOSP1111</b>	<b>THROWBALL</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>J</b>	<b>C</b>
		<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>2</b>
<b>Pre-requisite</b>	None						
<b>Co-requisite</b>	None						
<b>Preferable exposure</b>	None						

**Course Description:**

*This course provides instruction and the opportunity for participation in sports and physical fitness activities. Skills, strategies, rules, and personal wellness goals are included as appropriate. This course will provide students with an understanding of the fundamental concepts of the physiological functions and training principles associated with the chosen sport.*

**Course Educational Objectives:**

- Understand training principles used in the sport
- Demonstrate knowledge of the game in a recreational /competitive play setting
- Organize an event around the sport
- Demonstrate concepts of warm up, game conditioning, training plans

**List of Activities:**

1. Watch a sport documentary / training video / game history
2. On field coaching and demonstration session
3. Guided practice and play
4. Event management & game officiating
5. Friendly competitions and structured matches

**Instructional Plan:**

1. Introduction to Throwball - History and development
2. Rules of the Game, Play Area & dimensions
3. Fundamental Skills - Throwing, Receiving
4. Sports Specific fitness and warmup drills
5. Stances and footwork
6. Preparatory Drills and Fun Games
7. Gameplay: Shots, throws, movements, control



**References:**

1. World Throwball Federation - Rules of the Game

**Course Outcomes:**

1. Learn to play Throwball
2. Understanding of the fundamental concepts such as rules of play, game variations
3. Understanding of the governing structure and administration of the sport
4. Understand the event management of the sport
5. Apply sport concepts into an active physical lifestyle

**CO-PO Mapping:**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4
<b>CO1</b>	3	2	2				3				
<b>CO2</b>							2				
<b>CO3</b>		3	3				2				
<b>CO4</b>					2		2				
<b>CO5</b>				3	2		3				

Note: 1 - Low Correlation 2 - Medium Correlation 3 - High Correlation

**APPROVED IN:**

**BOS :19-07-2021**

**ACADEMIC COUNCIL:19-07-2021**

**SDG No. & Statement:4**

Good Health and Well-being: Ensure healthy lives and promote well-being for all at all ages.

**SDG Justification:**

The nature of the course facilitates students to engage in various forms of fitness activities and sports-related movements that work on their overall health and wellness. The course focuses on inculcating active living as a lifestyle by making sports fun, engaging and meaningful.

<b>ENVS1001</b>	<b>ENVIRONMENTAL STUDIES</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>J</b>	<b>C</b>
		<b>3</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>3*</b>
<b>Pre-requisite</b>	None						
<b>Co-requisite</b>	None						
<b>Preferable exposure</b>	None						

**Course Description:**

*The course enables the students to adapt eco-centric thinking and actions rather than human-centric thinking on natural resources, their utilization and conservation. The course also focuses on the importance of ecosystems, biodiversity and their degradation led to pollution. This course helps in finding solutions through application of control measures to combat pollution and legal measures to achieve sustainable development.*

**Course Educational Objectives:**

- To impart knowledge on natural resources and its associated problems.
- To familiarize learners about ecosystem, biodiversity, and their conservation.
- To introduce learners about environment pollution.
- To acquaint learners on different social issues such as conservation of water, green building concept.
- To make learners understand about the present population scenario, its impacts and role of informational technology on environment and human health.
- To make learners understand about the importance of field visit.

**UNIT 1                      Multidisciplinary nature of environmental studies & Natural Resources                      10 hours**

Multidisciplinary nature of environmental studies Definition, scope and importance. Need for public awareness. Natural resources and associated problems. Uses and over exploitation of Forest resources, Water resources, Mineral resources, Food resources, Energy resources. Role of an individual in conservation of natural resources.

Activity:

1. Planting tree saplings
2. Identification of water leakage in house and institute-Rectify or report
3. Observing any one day of a week as Car/bike/vehicle free day.

**UNIT 2                      Ecosystem and biodiversity                      10 hours**

**Ecosystem:** Structure components of ecosystem: Biotic and Abiotic components. Functional components of an ecosystem: Food chains, Food webs, Ecological pyramids, Energy flow in the ecosystem (10% law), Ecological succession.

**Biodiversity:** Definition, Biogeographical classification of India, Values of biodiversity: consumptive use, productive use, social, ethical, aesthetic. Hot-spots of biodiversity. Threats to biodiversity: habitat loss, poaching, man wildlife conflicts. Conservation of biodiversity: In – situ and Ex-situ

Activity:

1. Visit to Zoological Park-Noting different ecosystem
2. Biodiversity register- Flora and fauna in the campus

**UNIT 3 Environmental Pollution 10 hours**

Definition Causes, effects, and control measures of: -Air pollution. Water pollution. Soil pollution. Marine pollution. Noise pollution. Nuclear hazards. Solid waste Management: Causes, effects, and control measures. Role of an individual in prevention of pollution. Pollution case studies.

Activity:

1. Visit to treatment plant and documentation.
2. Documentation of segregation of solid waste-Dry and Wet

**UNIT 4 Social Issues and the Environment 10 hours**

From Unsustainable to Sustainable development Urban problems related to energy. Water conservation, rainwater harvesting, watershed management. Environmental ethics: Issues and possible solutions. Green building concept.

Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust. Case Studies.

Activity:

1. Observing zero hour at individual level-documentation.
2. Eco friendly idols.
3. Rainwater harvesting-creating storage pits in nearby area.

**UNIT 5 Human Population and the Environment and Environment Protection Act and Field work 10 hours**

Population growth, variation among nations. Environment and human health. HIV/AIDS, Human rights. Value Education. Women and Child Welfare. Role of Information Technology in Environment and human health. Environment Legislation. Air (Prevention and Control of Pollution) Act. Water (Prevention and Control of Pollution) Act. Wildlife Protection Act. Environmental Protection Act, Issues involved in enforcement of environmental legislation.

Activity:

1. Visit to a local polluted site-industry/agriculture
2. Identifying diseases due to inappropriate environmental conditions

**Textbook(s):**

1. Erach Bharucha. Textbook of environmental studies for undergraduates courses- Universities Press,India Private Limited. 2019.
2. Kaushik A and Kaushik C.P. Perspectives in Environmental Studies. New Age International Publishers Edition-VI. 2018.

3. Dave D Katewa S.S. Textbook of Environmental Studies, 2<sup>nd</sup> Edition. Cengage Learning India. 2012.

**Additional Reading:**

1. Benny Joseph. Textbook of Environmental Studies 3rd edition, McGraw Hill Publishing company limited. 2017.

**Reference Book(s):**

1. McKinney M.L., Schoch R.M., Yonavjak L. Mincy G. Environmental Science: Systems and Solutions. Jones and Bartlett Publishers. 6<sup>th</sup> Edition. 2017.
2. Botkin D.B. Environmental Science: Earth as a Living Planet. John Wiley and Sons. 5<sup>th</sup> edition. 2005.

**Journal(s):**

1. <https://www.tandfonline.com/loi/genv20>
2. <https://library.lclark.edu/envs/corejournals>

**Website(s):**

<https://www.ugc.ac.in/oldpdf/modelcurriculum/env.pdf> [From Climate Science to Action | Coursera](#)

**Course Outcomes:**

After the completion of the course student will be able to

1. List different natural resources and their uses
2. Summarize the structure and function of terrestrial and aquatic ecosystems.
3. Identify causes, effects, and control measures of pollution (air, water & soil).
4. Function of green building concept.
5. Adapt value education

**CO-PO Mapping:**

	PO2	PO1	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3
CO1	2							2		
CO2		2				1		2		
CO3			1						1	
CO4				2						1
CO5	1								1	
CO6					2					1

Note: 1 - Low Correlation 2 - Medium Correlation 3 - High Correlation

**APPROVED IN: BOS**

**BOS: 04-07-22**

**ACADEMIC COUNCIL:14-07-22**

**SDG No. & Statement:**

- 1.SDG-6-Clean water and Sanitation
2. SDG-7-Affordable and clean energy
3. SDG-13 - Climate change
4. SDG-14 - Life below water
5. SDG-15 - Life on Land

**SDG Justification:**

1. The learner will understand the importance of clean water and sanitation through this course and apply in their daily activities – SDG-6
2. The learner will make use of renewable resources to reduce pollution achieves SDG-7
3. The learner will understand present situation in climate change and takes appropriate steps to combat climate change – SDG-13
4. The learner will understand the existence of life below water – SDG-14
5. The learner will understand to promote sustainable terrestrial ecosystem – SDG15

FINA3001	PERSONAL FINANCIAL PLANNING	L	T	P	S	J	C
		0	0	2	0	0	1*
<b>Pre-requisite</b>	None						
<b>Co-requisite</b>	None						
<b>Preferable exposure</b>	Risk Management in personal financing Fundamentals of Investing Personal and Family Financial Planning Introduction to Personal Finance Portfolio Selection and Risk Management						

**Course Description:**

*Personal Financial Planning is one of the most significant factors in our lives. It is essential that funds are available as and when required at various stages of life. Unavailability of funds at critical stages of our life leads to financial distress and leads to many medical and non- medical problems. There are certain planned and unplanned events in our life. On the one hand, education of our children, their marriage, our retirement etc. are some of the planned events of our life, but at the same time, some medical urgency, accident or death of an earning member might be some unplanned events. Many of these events are beyond our control, but the availability of funds can be planned to avoid any financial distress. In other words, we cannot stop the rain but can plan for an umbrella.*

*This course looks at the many challenges an individual faces in a complex financial environment and the rising uncertainties of one's life. It focuses on achieving long-term financial comfort of individual and family through goal setting, developing financial and life strategies, acquiring personal financial planning knowledge and managing risk throughout one's life.*

**Course Educational Objectives:**

- To build students' ability to plan for long-term financial comfort of individual and family through goal setting, developing financial and life strategies.
- To provide students with knowledge on terms, techniques to evaluate investment avenues.
- To build the skill set of the student to enable them to file their tax returns.

**UNIT 1 Basics of Financial Planning**

Financial Planning Meaning, Need, Objectives, Financial Planning Process, Time Value of Money and its application using excel (NP)

**UNIT 2**  
**Risk and Insurance Management**

Need for insurance, Requirement of insurance interest, Role of insurance in personal finance, Steps in insurance planning, Life and Non-life insurance products, Life insurance needs analysis (NP)

**UNIT 3**  
**Investment Products and Measuring Investment Returns**

**Investment Products:** Small Saving Instruments, Fixed Income Instruments, Alternate Investments, Direct Equity

**Measuring Investment Returns:** Understanding Return and its concept, Compounding concept, Real vs Nominal Rate of Return, Tax Adjusted Return, Risk-Adjusted Return (NP)

**UNIT 4**  
**Retirement Planning**

Introduction to the retirement planning process, estimating retirement corpus, Determining the retirement corpus, Retirement Products (NP)

**UNIT 5**  
**Tax Planning**

Income Tax: Income tax principles: Heads of Incomes, Exemptions and Deductions, Types of Assesses, Rates of Taxation, Obligations for Filing and Reporting, Tax aspects of Investment Products, Wealth Tax

**Textbooks:**

1. National Institute of Securities Management (NISM) Module 1 & XA
2. Madhu Sinha, Financial Planning, 2 Edition, McGraw Hill India
3. Simplified Financial Management by Vinay Bhagwat, The Times Group

**References:**

1. Personal Financial Planning (Wealth Management) by S Murali and K R Subbakrishna, Himalaya Publishing House.
2. Mishra K.C., Doss S, (2009). Basics of Personal Financial Planning 1e. National Insurance Academy, New Delhi: Cengage Learning.
3. Risk Analysis, Insurance and Retirement Planning by Indian Institute of Banking and Finance.

**Course Outcomes:**

1. Describe the financial planning process and application of time value of money
2. Application of life and non-life insurance products in financial planning
3. Understand the investment avenues and analysis of investment returns
4. Understand the retirement planning and its application
5. Describe and analysis the Tax Planning

**CO-PO Mapping:**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4
CO1	1	1	0	0	1	0	0	3	1	1	3
CO2	2	2	0	0	1	1	1	3	1	1	2
CO3	3	2	1	0	1	0	0	3	2	2	3
CO4	3	2	0	1	1	0	1	2	2	3	2
CO5	3	3	0	1	1	1	2	1	2	2	3

Note: 1 - Low Correlation 2 - Medium Correlation 3 - High Correlation

**APPROVED IN:**

**BOS : 01-02-2022**

**ACADEMIC COUNCIL: 01-04-2022**

**SDG No. & Statement:**

**SDG Justification:**



<b>LANG1001</b>	<b>COMMUNICATION SKILLS IN ENGLISH - BEGINNERS</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>J</b>	<b>C</b>
		<b>0</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>2*</b>
<b>Pre-requisite</b>	None						
<b>Co-requisite</b>	None						
<b>Preferable exposure</b>	None						

**Course Description:**

*Communication Skills in English (Beginner) is the first of the three-level courses for a developmental enhancement of learners' communication skills in English. This course focuses on giving learners exposure to factual level of comprehension (listening and reading) and application of the learning (Speaking/Writing) with an awareness for social and personality-based variations in communication. In addition to the LSRW skills, the focus of the course is on schematic thinking skills. This course is activity-based and practice-oriented in terms of procedural knowledge of vocabulary and grammatical structure. This syllabus is carefully developed to enable learners to engage in communication in English avoiding errors and be prepared for next level of learning English.*

**Course Educational Objectives:**

- Train learners to listen actively, follow what is spoken in standard English, and answer questions to demonstrate their understanding of the main points of the speech, repeat part of what someone has said to confirm mutual understanding, though occasionally, there may be a need to ask for repetition or clarification. (Bloom's Taxonomy Level/s: 2 & 3)
- Equip learners with the skills to read and comprehend straightforward texts and simple argumentative writing to identify the topic, the desired/relevant information, the main points of the argument, and the major conclusion/s. (Bloom's Taxonomy Level/s: 2 & 4)
- Help learners apply their knowledge and language skills to make mini oral presentations and produce short coherent written texts using appropriate cohesive devices, suitable vocabulary, and grammatical structures. (Bloom's Taxonomy Level/s:3)
- Enable learners to communicate with reasonable accuracy in familiar contexts with adequate fluency and generally good control by equipping them with a repertoire of frequently used vocabulary, structures, and speech patterns. (Bloom's Taxonomy Level/s: 2 & 3)

**List of Activities & Tasks for Assessment:**

1. Listening to others and getting to know their experiences, interests and opinions
2. Introducing oneself: Salutation, basic information, relating to the context
3. Starting a conversation: Salutation, expressing purpose, expressing gratitude
4. Sharing one's experiences, interests and opinions
5. Reading short newspaper articles for gist
6. Picking new words from an article and working on them to know the meaning and usage
7. Using the new (unknown) words in own sentences
8. Sharing news with others - initiate, sustain and conclude
9. Understanding the relevance of intonation to meaning from recorded conversations, and applying the learning in pair work (role play)
10. Writing a summary of a story/personal narrative after listening to it twice and making individual notes
11. Reading graphs, charts and maps for specific information, making note of the important information and talking briefly about it within a small peer group
12. Writing a paragraph about oneself: a brief profile including major successes, failures, and goals. Giving compliments/gratitude to others
13. Writing a paragraph (descriptive, complimentary) about others (Family, friends, role model, etc.)
14. Correcting each other's' drafts: errors in language - word choice, structure, and conventions/etiquette
15. Writing a short structured descriptive/narrative essay in 3 paragraphs, reading others' essays, and sharing feedback

**References:**

1. V. Sasikumar, P. Kiranmayi Dutt, Geetha Rajeevan. (2007). Listening and Speaking - Foundation Books Cunninham, S. & Moor, P. (nd). New Cutting Hedge (Intermediate). Longman
2. Cambridge Academic English: An Integrated Skills Course for EAP (Intermediate) By Craig Thaine, CUP (2012)
3. Rutherford, Andrea J. (2007). Basic Communication Skills for Technology: Second Edition. Delhi: Pearson Education.
4. McCarthy, M., O'Dell, F., Mark, G. (2005). English Vocabulary in Use. Spain: Cambridge University Press.
5. New Headway Academic Skills: Reading, Writing, and Study Skills Student's Book, Level-1 by Sarah Philpot. OUP

6. Philpot, S. & Curnick, L. (2017). Headway: Academic Skills: Reading, Writing, and Study Skills. Introductory Level. OUP.
7. Thaine, C. (2012). Cambridge Academic English: An Integrated Skills for EAP. Intermediate. CUP.

**Online References:**

- [www.teachingenglish.org.uk](http://www.teachingenglish.org.uk)
- [learnenglishteens.britishcouncil.org](http://learnenglishteens.britishcouncil.org)
- <https://eslflow.com/>
- <https://www.englishclub.com/>
- <https://www.oxfordlearnersdictionaries.com/>
- <https://dictionary.cambridge.org/>
- [learnenglishteens.britishcouncil.org](http://learnenglishteens.britishcouncil.org)
- <https://freerice.com/categories/english-vocabulary>

**Course Outcomes:**

1. Listen actively, understand and extract the essential information from short talks/conversations/discussions that are delivered in clear, standard speech. (Bloom's Taxonomy Level/s: 2 & 3)
2. Read, understand, and extract specific information from straightforward factual and simple argumentative texts on general topics and subjects of interest. (Bloom's Taxonomy Level/s: 2 & 3)
3. Speak clearly with some confidence on matters related to his/her interests and academic work and make short structured oral presentations on topics of personal interest. (Bloom's Taxonomy Level/s: 3)
4. Write short straightforward connected texts on a range of familiar/general topics using appropriate linking devices to achieve a clear sequence of ideas. (Bloom's Taxonomy Level/s: 3)
5. Acquire sufficient language competency to express oneself in speech and writing with some confidence, using appropriate vocabulary and simple grammatical structures though lexical limitations and/or difficulty with formulation might be evident at times. (Bloom's Taxonomy Level/s: 2 & 4)

**CO-PO Mapping:**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4
<b>CO1</b>	0	2	2	3	0	0	0				
<b>CO2</b>	0	2	2	3	0	0	0				
<b>CO3</b>	0	0	0	3	0	0	0				
<b>CO4</b>	0	0	0	3	0	0	0				
<b>CO5</b>	0	4	2	0	2	2	4				

Note: 1 - Low Correlation 2 - Medium Correlation 3 - High Correlation

**APPROVED IN:**

**BOS :30-04-2021**

**ACADEMIC COUNCIL: 17-09-2021**

**SDG No. & Statement:**

SDG No. 4: Statement: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.

**SDG Justification:**

The course aims to remove inequalities among admitted students with regard to basic communication skills in English and provide them communication as well as learning skills that are useful throughout their lives.

<b>LANG1011</b>	<b>COMMUNICATION SKILLS IN ENGLISH</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>J</b>	<b>C</b>
		<b>0</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>2</b>
<b>Pre-requisite</b>	None						
<b>Co-requisite</b>	None						
<b>Preferable exposure</b>	None						

**Course Description:**

*Communication Skills in English (Intermediate) is the second of the three-level graded courses for a developmental enhancement of communication skills in English. Based on the learning outcomes set in the beginner level syllabus, this course focuses on giving learners more exposure to the use of language for communicative purposes and equip them with next level skills (ref. Bloom's taxonomy) and practice in terms of complexity and cognitive engagement. This course also includes inferential level of comprehension (listening and reading) that involves analysis and application of the language skills and decision-making skills while speaking/writing with an awareness for social and personality-based variations in communication. This course emphasizes guided writing through adequate tasks with pre and post context building. The focus is on stimulation and application of critical thinking in addition to schematic thinking for communication in real-life situations.*

**Course Educational Objectives:**

- Train learners to actively listen to short audio texts with familiar content; guided activity like question-making and responding to others' questions based on the audio text would help learners engage in transactional dialogue; extended activities like extrapolating/critiquing the responses would help learners enhance their schematic thinking. (Bloom's Taxonomy Level/s: 2 & 4)
- Equip learners with strategies to read actively and critically and understand the writers' viewpoints and attitude by providing reading comprehension tasks using authentic texts such as op-ed articles from newspapers, and reports on contemporary problems. (Bloom's Taxonomy Level/s: 4 & 5)
- Help learners understand various aspects and techniques of effective presentations (group/individual) through demonstration and modelling, and enabling them to develop their presentation skills by providing training in using the tips and strategies given. Learners would be encouraged to observe and express opinion on teacher-modelling. Reflection on issues like anxiety, stage-fear, confidence, and levels of familiarity with topic and audience would be addressed. Practice would be given on tone, pitch, clarity and other speech aspects. Detailed peer feedback and instructor's feedback would cover all the significant aspects. (Bloom's Taxonomy Level/s: 2 & 4)
- Enable learners to become aware of the structure and conventions of academic writing through reading, demonstration, scaffolding activities, and discussion.

Corrective individual feedback would be given to the learners on their writing. (Bloom

**List of Tasks and Activities:**

S.No.	Tasks	Activities
1	Listening to subject related short discussions/explanations/ speech for comprehension	Pre-reading group discussion, Silent reading (Note-making), Modelling (questioning), Post-reading reflection / Presentation
2	Asking for information: asking questions related to the content, context maintaining modalities	Group role-play in a con text (i.e. Identifying the situation and different roles and enacting theirroles)
3	Information transfer: Verbal to visual (familiar context), demonstration by teacher, learners' task (guided with scaffolding), learners' task (free), presentation and feedback	Pair work for discussion & feedback, Presentations, question-answer
4	Information transfer: Visual to verbal (unfamiliar context); demonstration by teacher, learners' task (guided with scaffolding), learners' task (free), presentation and feedback	Pre-reading game/modelling, discussion in small groups, individual writing, and feedback
5	Introducing officials to peers and vice versa -Formal context	AV support, noticing, individual performance (3-4), pair work (in context), teacher modelling, group work for Introducing self and others in a formal context
6	Introducing friends to family and vice versa -Informal context	Teacher modelling/AV support, noticing structure & note-taking, Introducing friends andfamily in an informal context
7	Vocabulary in context: Find clues in a text and use them to guess the meaning of words/ phrases. Apply the newly learnt vocabulary in communication (speaking and writing).	Comprehending verbal communication: Identifying the contextual clues in oral and written texts; guessing the meaning of words/phrases in context while reading texts and listening to discussions/talks

8	A five-day journal (diary) writing based on learners reading from newspaper on a single relevant/current social issue. Individual oral presentation and feedback from peers and instructor.	Note-making (group work), Discussion, Feedback
9	Follow the essentials of lectures, talks, discussions, reports and other forms of academic presentations and make individual and group presentations aided with images, audio, video, tabular data, etc.	Making power point presentation aided with images, audio, video, etc. with a small group by listening to academic lectures/talks/ discussions, etc.
10	Self-reflection: Re-reading one's own drafts, identifying errors, correcting the errors, and giving rationalize the changes	Pre-task discussion/modelling, Editing the texts by careful reading and identifying the errors, peer-exchange (Pair work), feedback/consolidation
11	Collaborative work (speaking and writing) in small groups of 3 or 4 learners: discussing a general/discipline-specific topic: creating outline, assigning specific roles to members of the group; and group presentation followed by peer and instructor feedback	Pre-task modelling (peer/teacher), general discussion on structure, group work (collaboration), feedback
12	Independent reading of different text types using appropriate reference sources by adapting suitable reading styles and speed. Focus on active reading for vocabulary: low-frequency collocations and idiomatic expressions.	Brain-storming, mapping of key terms (content specific), reading and note-making (individual), oral questioning, discussion
13	Role-play (specific social and academic situations): planning (making notes), understanding nuances of speaking in context, coordinating with situational clues and fellow speakers/participants	Peer discussion for outline, A-V support, observing (teacher modelling), role play (guided), role-play (free), feedback
14	Writing instructions: Guidelines - Flowcharts - Procedures to be followed	Pre-task reading, pair work, teacher/peer-discussion, feedback

15	Speaking spontaneously on topics of interest and writing short structured essays on the same topics adopting appropriate academic conventions and grammatical accuracy.	Reading for task preparation, note-making, speaking, reflection and corrective peer and teacher feedback
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**Reference Books:**

1. P. Kiranmayi Dutt, Geetha Rajeevan. (2007). Basic Communication Skills. FoundationBooks. CUP
2. Harmer, J. (1998). How to teach English. Longman
3. Sanjay Kumar & Pushp Lata. (2018). Communication Skills: A Workbook. OUP.
4. Cambridge IGCSE: English as a Second Language Teacher's Book Fourth Edition. By Peter Lucantoni. CUP (2014).
5. Cambridge Academic English: An Integrated Skills Course for EAP (Upper Intermediate) By Martin Hewings, CUP (2012)
6. Richards, J.C. and Bohlke, D. (2012). Four Corners-3. Cambridge: CUP.
7. Headway Academic Skills: Reading, Writing, and Study Skills Student's Book, Level-2 by Sarah Philpot. OUP
8. Latham-Koenig, C. & Oxenden, C. (2014). American English File. Oxford: OUP.
9. McCarthy, M. & O' Dell. F. (2016). Academic Vocabulary in Use. Cambridge: CUP

**Online Resources:**

1. <https://www.grammarly.com/blog/>
2. <https://www.nationalgeographic.org/education/>
3. <https://www.bbc.co.uk/teach/skillswise/english/zig4scw>
4. <https://www.englishclub.com/>
5. <https://www.oxfordlearnersdictionaries.com/>
6. <https://dictionary.cambridge.org/>
7. [learnenglishteens.britishcouncil.org](http://learnenglishteens.britishcouncil.org)
8. <https://freerice.com/categories/english-vocabulary>
9. <http://www.5minuteenglish.com/>
10. <https://breakingnewsenglish.com/>
11. <https://www.digitalbook.io/>
12. <https://librivox.org/>

**Course Outcomes:**

1. Understand the speaker's point of view in fairly extended talks on general or discipline-specific topics, and follow simple lines of argument in discussions on familiar contemporary issues. (Bloom's Taxonomy Level/s: 3)
2. "Read and demonstrate understanding of articles and reports on limited range of contemporary issues in which the writers adopt particular stances. Also provide samples of written communication containing fairly complex information and reasons



for choices/opinions/stances. (Bloom's Taxonomy Level/s: 2 & 3)"

3. Make short presentations on a limited range of general topics using slides, and engage in smallgroup discussions sharing experiences/views on familiar contemporary issues and give reasonsfor choices/opinions/plans. (Bloom's Taxonomy Level/s: 3 & 4)
4. Write clear, fairly detailed text (a short essay) on a limited range of general topics, and subjectsof interest, and communicate clearly through email/letter to seek/pass on information or give reasons for choices/opinions/plans/actions. (Bloom's Taxonomy Level/s: 3)
5. Reflect on others' performance, give peer feedback on fellow learners' presentations, responsesto writing tasks and reading comprehension questions. (Bloom's Taxonomy Level/s: 5)

**CO-PO Mapping:**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4
<b>CO1</b>	0	3	0	3	0	3	0				
<b>CO2</b>	0	2	0	3	2	2	0				
<b>CO3</b>	4	3	3	3	3	3	4				
<b>CO4</b>	0	3	3	3	3	3	0				
<b>CO5</b>	5	0	5	0	0	0	0				

Note: 1 - Low Correlation 2 - Medium Correlation 3 - High Correlation

**APPROVED IN:**

**BOS :30-04-2021**

**ACADEMIC COUNCIL: 17-09-2021**

**SDG No. & Statement:**

SDG No. 4: Statement: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.

**SDG Justification:**

The course aims to remove inequalities among admitted students with regard to basic communication skills in English and provide them communication as well as learning skills that are useful throughout their lives.

<b>LANG1021</b>	<b>ADVANCED COMMUNICATION SKILLS IN ENGLISH</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>J</b>	<b>C</b>
		<b>0</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>2</b>
<b>Pre-requisite</b>	None						
<b>Co-requisite</b>	None						
<b>Preferable exposure</b>	None						

**Course Description:**

*Communication Skills in English (Advanced) is the third of the three-level graded courses for a developmental enhancement of communication skills in English. Based on the learning outcomes set in the upper-intermediate syllabus, this course focuses on giving learners exposure to higher level of skills/input processing (ref. Bloom's taxonomy) and practice in terms of complexity and cognitive engagement. This course includes advanced level of comprehension i.e. analytical, evaluative and extra-polative processing (listening and reading) and involves problem-solving, logical reasoning and decision-making skills in terms of application of the learning (speaking/writing) with an awareness for social and personality based variations in communication. This course provides opportunities with activity-based practice of advanced oral and written communicative skills besides building awareness on the finer nuances of language use for various purposes. This course emphasizes free writing through meaningfully engaging tasks with pre and post context building. There is ample scope for application of critical thinking through simulated activities for effective communication in real life situations.*

**Course Educational Objectives:**

- Enable learners to listen actively become aware of tone and attitude in speech, and demonstrate their comprehension of fairly complex lines of argument presented by a variety of speakers in talks/presentations/discussions. (Bloom's Taxonomy Level/s: 2 & 4)
- Enable learners to become aware of tone and attitude in written texts, and demonstrate their comprehension of fairly complex lines of argument and points of view presented in a variety of texts by equipping them with upper intermediate to advanced level reading skills and strategies. (Bloom's Taxonomy Level/s: 2 & 3)
- Make effective presentations, engage in formal group discussions, and write structured essays/ short reports to highlight the significance of actions/decisions/experiences, and sustain views by providing relevant evidence and argument. (Bloom's Taxonomy Level/s: 3 & 4)
- Equip learners with the skills and strategies to communicate effectively in speech and writing using the language with a degree of fluency, accuracy and spontaneity, and fairly good grammatical control adopting a level of formality appropriate to the context. Encourage learners to apply their knowledge of language and their

communication skills in real life situations. (Bloom's Taxonomy Level/s:3 & 5)

**List of Activities & Tasks for Assessment:**

S.No.	Tasks	Activities	CO
1	Evaluative and extrapolative reading of a longtext/short texts on a current topic related to technology and society, identifying and questioning the author's intention, post- reading discussion in small groups, maintaining group dynamics, arriving at a consensus	Pre-reading group discussion, silent reading (Note-making), modelling (questioning), post-reading reflection and brief presentation of thoughts/ideas/opinions on the themeof the text	3
2	Debate in pairs based on listening to two recorded contemporary speeches by well-known leaders in different fields. Peer feedback and instructor feedback.	Pre-recorded audio/video for listening, student checklist for noticing key words/concepts, pre-task orientation (by teacher), pair work, feedback	1
3	Information transfer: Verbal to visual (unfamiliar context); demonstration by teacher, learners' task (guided with scaffolding), learners' task (free), presentation, question-answer (among students), modification and feedback before the final version is done	Pair work for discussion and feedback, presentations, question-answer	2
4	Information transfer: Visual to verbal (unfamiliar context); demonstration by teacher, learners' task (guided with scaffolding), learners' task (free), presentation, question-answer(among students), modification, editing, proofreading, and feedback before the final version is done	Pre-reading game/ modelling, discussion in small groups, independent writing and feedback	4
5	Expressing opinion on a short argumentative text (e.g. a journal article or a newspaper editorial) and justifying one's opinion/stance; focus on the use of appropriate conventions of formal and polite speech, and managing bias	Listening to group discussions/ debates, reading news-paper articles on the current issues and expressing opinions in favour or against the topic (in GDs, debates or writing argumentativeessays).	3

6	Role-play (complex social and academic/professional situations): Focus on significant aspects of delivery including clarity, tone, and use of contextually appropriate vocabulary and conventions, observation, reflective discussion, and self-reflective writing	Reading newspaper/ magazine articles/ blog posts on current social issues, listening to talks/ discussions/ debates etc. and participating in role-plays using expressions appropriate to the context.	1
7	Collaborative writing in groups of 3 - 4 on topics that would require data collection and reading followed by recorded peer-reflection and peer-feedback, group presentation and feedback	Pre-task modelling (peer), general discussion on structure, group work (collaboration), presentation, peer feedback, Open-class discussion	5
8	Formal Group Discussion on topics of current interest and relevance; focus on effective participation, reflection on control over argument/ counter argument, and adherence to the conventions of formal GD	Noticing strategies from AV modelling, teacher scaffolding through open-house discussion, Note-making (Group work), Group Discussion (free), post performance discussion, Feedback	2
9	Mind-mapping for advanced reading, making correlations across texts, extending author's point of view	Reading texts on abstract topics and comprehending the author's perspective by inferring the unknown words' meaning in the context and making notes using mind-map strategy and presenting it orally.	3
10	Handling question and answer sessions after presentations: justifying arguments, taking counter-arguments, agreeing and disagreeing with rationale	Listening to some lectures, talks, and presentations in the academic seminars and adapting some strategies to handle the Q&A sessions using polite and formal expressions to agree or disagree with the statements.	1
11	Modelling an interview: with a panel of four judges (peers)	Pre-task activity for orientation/ strategies (controlled/guided), Model interview (AV support), Group work (role play), interview in pair (one-to-one), Interview in group (many -to-one), oral corrective feedback (peer/ teacher)	2

12	Writing a short reflective report of an event - incident/ meeting/ celebration	Writing a report on meetings/ celebrations/ events etc. by actively involving in such events and giving a short oral presentation on the same.	4
13	Speaking on abstract and complex topics beyond his/her own area of interest/field of study, using the language flexibly and effectively.	Reading texts on abstract topics and comprehending the author's perspectives. Similarly, listening to talks and discussions on an abstract topic of other discipline and making short oral presentation by sharing views and opinions.	3
14	Self-reflection on own speech in context(recorded): tone, pitch, relevance, content; extending the reflections/ideas to others	Listening to selected general discussions (audios and videos) and observing the language production. Recording own speech on some general topic and providing a critical review (self-reflection) on it by focusing on the tone, expressions and relevance of the content, etc.	1
15	Collaborative and individual task: planning, preparing (preparing an outline, structure, setting objectives and presenting the plan of action) and executing a mini-project, and submitting a brief report on the same peer and instructor feedback after the planning stage and on completion of the mini project	Pre-task modelling (peer/teacher), general discussion on structure, group work (collaboration), oral corrective, task distribution, presentation, feedback	5

**Reference Books:**

1. Latham-Koenig, C. & Oxenden, C. (2014). American English File-5. Oxford: OUPRichards,
2. J.C. and Bohlke, D. (2012). Four Corners-4. Cambridge: CUP.
3. Cambridge Academic English: An Integrated Skills Course for EAP (Advanced) By Martin Hewings and Craig Thaine, CUP (2012)
4. Berlin, A. (2016). 50 Conversation Classes: 50 Sets of Conversation Cards with an Accompanying Activity Sheet Containing Vocabulary, Idioms and Grammar. Poland: CreateSpace Independent Publishing Platform
5. Zemach, D. E., Islam, C. (2011). Writing Paragraphs: From Sentence to Paragraph. Germany: Macmillan Education.

6. Stewart, J. P., Fulop, D. (2019). *Mastering the Art of Oral Presentations: Winning Orals, Speeches, and Stand-Up Presentations*. United Kingdom: Wiley.
7. Kroehnert, Gary. (2010). *Basic Presentation Skills*. Sidney: McGraw Hill.
8. Cunningham, S. & Moor, P. (nd). *Cutting Edge (Advanced) With Phrase Builder*. Longman Publishers. CUP
9. McCarthy, M & O'Dell, F. (2017). *English Idioms in Use (Advanced)*. Cambridge: CUP.

**Online Resources:**

1. <https://www.grammarly.com/blog/>
2. <https://www.nationalgeographic.org/education/>
3. <https://www.bbc.co.uk/teach/skillswise/english/zjg4scw>
4. <https://www.englishclub.com/>
5. <https://www.oxfordlearnersdictionaries.com/>
6. <https://dictionary.cambridge.org/>
7. [learnenglishteens.britishcouncil.org](http://learnenglishteens.britishcouncil.org)
8. <https://freerice.com/categories/english-vocabulary>
9. <http://www.5minuteenglish.com/>
10. <https://breakingnewsenglish.com/>
11. <https://www.digitalbook.io/>
12. <https://librivox.org/>

**Course Outcomes:**

1. Listen to extended lectures, presentations, and discussions on a wide range of contemporary issues and demonstrate understanding of relatively complex lines of argument. (Bloom's Taxonomy Level/s: 2)
2. Make presentations using suitable AV aids and engage in formal group discussions on a wide range of topics of contemporary interest, demonstrating awareness of standard/widelyaccepted conventions. (Bloom's Taxonomy Level/s: 3)
3. Read and demonstrate understanding of the writer's stance/viewpoint in articles and reports on a wide range of contemporary issues and discipline-specific subjects. (Bloom's Taxonomy Level/s: 2 & 4)
4. Write analytical essays on a wide range of general topics/subjects of interest, and engage in written communication (emails/concise reports) to exchange relatively complex information, giving reasons in support of or against a particular stance/point of view. (Bloom's Taxonomy Level/s: 3 & 4)
5. Complete a mini project that necessitates the use of fairly advanced communication skills to accomplish a variety of tasks and submit a report in the given format. (Bloom's Taxonomy Level/s: 4 & 5)

**CO-PO Mapping:**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4
CO1	0	2	2	0	2	2	0				
CO2	3	3	0	3	0	0	3				
CO3	2	4	0	4	2	2	0				
CO4	3	4	0	4	0	0	3				
CO5	0	4	0	4	0	0	0				

Note: 1 - Low Correlation 2 - Medium Correlation 3 - High Correlation

**APPROVED IN:**

**BOS :30-04-2021**

**ACADEMIC COUNCIL: 17-09-2021**

**SDG No. & Statement:**

SDG No. 4: Statement: Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.

**SDG Justification:**

The course aims to remove inequalities among admitted students with regard to basic communication skills in English and provide them communication as well as learning skills that are useful throughout their lives.

MFST1001	HEALTH & WELLBEING	L	T	P	S	J	C
		0	0	2	0	0	1*
Pre-requisite	None						
Co-requisite	None						
Preferable exposure	None						

**Course Description:**

*The course provides the students a better understanding of the role of a proper diet in maintenance of human health. This course emphasizes the composition of the food, and will help to understand how to exercise, the role of sports and physical fitness in development of a good health. The course also focuses on the importance of emotional well-being and mindfulness. This course helps in teaching the role of yoga in maintenance of physical balance.*

**Course Educational Objectives:**

- To provide an understanding of the relationship between food and nutrition
- To emphasize the role of exercise, sports and physical fitness in obtaining a good health
- To explain about the mindfulness and emotional well being
- To teach the role of yoga and meditation in maintaining the body balance

**UNIT 1**

Understand the relationship between Food and Nutrition and how food composition affects nutritional characteristics. Knowledge about regulatory principles in determining diets and recommended daily allowances. Understand how to create personalised diet/nutrition plans.

**UNIT 2**

Understand how exercise, activity and sports helps in developing good health. Experiential exposure to the role of proper, specific nutritional interventions along with structured activities on developing proper physical health. Practical exercises and assignments in sports and exercise regimes.

**UNIT 3**

Introduction to emotional wellbeing and mindfulness. Teaching of mindfulness practices to reduce stress, increase relaxation and improve mental wellbeing.

**UNIT 4**



Introduction to Yoga theory and how Yoga helps in maintaining balance in the body. Practice of Yoga and meditation to improve overall emotional and physical balance. Practical yoga exercises and meditation techniques

**Course Outcomes:**

By the end of the course, student will

1. Learn the role of nutrition and diet in maintaining a good health
2. understand how the exercise, sports and physical activities will improve health
3. learn mindfulness practices for reducing stress
4. know the importance of yoga and meditation

**APPROVED IN:**

**BOS :30-04-2021**

**ACADEMIC COUNCIL: 17-09-2021**

**SDG No. & Statement:**

**SDG Justification:**





**CO-PO Mapping:**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4
CO1	3	2	3	3	3	3	3	3	3	2	2
CO2	3	3	2	3	2	3	3	3	3	2	3
CO3	3	3	3	2	3	2	2	3	3	2	2
CO4	3	2	2	3	3	2	2	3	3	2	3
CO5	3	3	2	2	3	3	3	3	3	3	2

Note: 1 – Low Correlation 2 – Medium Correlation 3 – High Correlation

**APPROVED IN:**

**BOS :30-04-2021**

**ACADEMIC COUNCIL: 17-09-2021**

**SDG No. & Statement:**

**SDG Justification:**

<b>POLS1001</b>	<b>INDIAN CONSTITUTION AND HISTORY</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>J</b>	<b>C</b>
		<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2*</b>
<b>Pre-requisite</b>	<b>None</b>						
<b>Co-requisite</b>	<b>None</b>						
<b>Preferable exposure</b>	<b>None</b>						

**Course Description:**

*This course analyses the basic structure and operative dimensions of the Indian Constitution. It explores various aspects of the Indian political and legal system from a historical perspective highlighting the various events that led to the making of the Indian Constitution. The course also deals with various challenges faced by the constitution and its coping mechanisms. Broadly, the students would understand and explain the working of different institutions and political debates ensuing from the operation of the Indian constitution in action.*

**Course Educational Objectives:**

- To introduce constitutional history of India.
- To explain the process of making Indian constitution
- To analyze Fundamental of Rights, Duties and other principles in constitution
- To create familiarity with political developments which shaped the constitution.

**UNIT 1****India as a Nation****6 hours**

Khilani, S. (2004). *Introduction, The Idea of India*, Chapter 1. New Delhi: Penguin Books, pp. 1-15.

Rowat, D. (1950). 'India: The Making of a Nation', *International Journal*, 5(2), 95-108.  
Doi:10.2307/40194264

Brass, P. (2018). 'Continuities and Discontinuities between pre- and post-Independence India', Chapter 1.

*The Politics of Idea since independence*, New Delhi: Cambridge University Press. Pp. 1-30.

**UNIT 2****Understanding the Constitution****6 hours**

Mehta, U.S. (2011). 'Constitutionalism' in *The Oxford Companion to Politics in India*, (ed) by Nirja Gopal Jayal, and Pratap Bhanu Mehta, New Delhi: Oxford University Press. Pp. 15-27.



Bakshi, P. (1956). 'Comparative Law: Separation of Powers in India'. *American Bar Association Journal*, 42(6), 553-595.

Rao, P. (2005). 'Separation of Powers in a Democracy: The Indian Experience'. *Peace Research*, 37(1), 113-122.

Kumar, Ashwani (2019): "Constitutional Rights, Judicial Review and Parliamentary Democracy,"

*Economic and Political Weekly*, Vol 51, Issue 15

Tillin, Louise. (2015). 'Introduction' in *Indian Federalism*. New Delhi: Oxford University Press. Pp. 1-30.

Chakrabarty, Bidyut and Rajendra Kumar Pandey. (2008). *Federalism' in Indian Government and Politics*, New Delhi: Sage Publications. Pp. 35-53.

Arora, B. and Kailash, K. K. (2018). 'Beyond Quasi Federalism: Change and Continuity in Indian Federalism', in *Studies in Indian Politics*, pp. 1-7.

Agrawal, Pankhuri (2020): "COVID-19 and dwindling Indian Federalism," *Economic and Political Weekly*, Vol 55, Issue No 26

### **Recommended Readings:**

De, Rohit. (2018). *A People's Constitution – The Everyday Life of Law in the Indian Republic*, USA: Princeton University Press.

Granville Austin, *The Indian Constitution: Cornerstone of a Nation*, Oxford University Press, Oxford, 1966.

Lahoti, R.C. (2004). *Preamble: The Spirit and Backbone of the Constitution of India*. Delhi: Eastern Book Company.

Rajeev Bhargava (ed), *Ethics and Politics of the Indian Constitution*, Oxford University Press, New Delhi, 2008.

Subhash C. Kashyap, *Our Constitution*, National Book Trust, New Delhi, 2011. Tillin, Louise. (2015). *Indian Federalism*. New Delhi: Oxford University Press.

Zoya Hassan, E. Sridharan and R. Sudarshan (eds), *India's Living Constitution: Ideas, Practices, Controversies*, Permanent Black, New Delhi, 2002.

**Course Outcomes:**

On the successful completion of the course students would be able to:

1. Demonstrate an understanding of the Constitution of India and how constitutional governance is carried out in India
2. Interpret knowledge of the Fundamental Rights and Duties of the Citizens as well as the Obligation of the state towards its citizens
3. Correlate familiarity with key political developments that have shaped the Constitution and amended it from time to time.
4. Equip themselves to take up other courses in law after having done a foundation course on Indian Constitution

**CO-PO Mapping:**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4
CO1	1	2	1	2	2	3	3	2	3	1	2
CO2	1	1	2	1	2	2	3	2	3	1	2
CO3	1	2	1	2	2	2	3	1	3	1	1
CO4	1	1	1	2	2	2	3	1	3	1	1
CO5	1	1	1	2	2	2	3	2	3	1	2

Note: 1 – Low Correlation 2 – Medium Correlation 3 – High Correlation

**APPROVED IN:**

**BOS :30-04-2021**

**ACADEMIC COUNCIL: 17-09-2021**

**SDG No. & Statement:**

**SDG Justification:**



VEDC1001	VENTURE DEVELOPMENT	L	T	P	S	J	C
		0	0	0	2	0	2
Pre-requisite	None						
Co-requisite	None						
Preferable exposure	None						

**Course Description:**

*India as part of its “Make in India” initiative has been focusing on creating incubation centers within educational institutions, with an aim to generate successful start-ups. These start-ups will become employment creators than employment seekers, which is the need of the hour for our country. This common course (university core) for all the disciplines is a foundation on venture development. It is an experiential course that starts with students discovering their deeper self in terms of how they might contribute to society by creating exciting new products and services that can become the basis of real businesses. The students learn about the emerging areas of knowledge that are the foundations of any successful company. They will learn how to develop insight into the problems and desires of different types of target customers, and from this, to identify the design drivers for a specific innovation. Students will learn specific design methods for new products and services. The students will learn that as important as the product or service itself, is a strategy for monetizing the innovation – for generating revenue, structuring the operating costs, and creating the operating profit needed to support the business, hire new employees, and expand forward. This course is aimed to be the beginning of what might be the most important journey of personal and career discovery so far in a student’s life, one with lasting impact. This is not just a course, but potentially, an important milestone in life that a student remembers warmly in the years to come.*

**Course Educational Objectives:**

Students have the opportunity to:

- Discover who they are – Values, Skills, and Contribution to Society
- Understand how creativity works and permeates the innovation process
- Learn the basic processes and frameworks for successful innovation.
- Gain experience in going through the innovation process.
- Conduct field research to test or validate innovation concepts with target customers.

**UNIT 1****PERSONAL DISCOVERY****4 hours**

Personal Values, Excite & Excel, Build a Team, Define Purpose, Mission Statement

**UNIT 2**

**IDEATION**

**10 hours**

Ideation & Impact, User Insights - Frameworks, Customer Interviews, Interpreting Results

**UNIT 3**

**SOLUTION DISCOVERY**

**8 hours**

Concept Design, Competitive Analysis, Product Line Strategy, Prototyping Solutions, Reality Check

**UNIT 4**

**BUSINESS MODEL DISCOVERY**

**4 hours**

Understand the Industry, Types of Business Model, Define Revenue Models, Define Operating Models, Define Customer Journey, Validate Business Model

**UNIT 5**

**DISCOVERY INTEGRATION**

**4 hours**

Define Company Impact, Create Value, Tell Your Story

**Textbooks:**

1. Meyer and Lee, "Personal Discovery through Entrepreneurship", The Institute for Enterprise Growth, LLC. Boston, MA., USA.

**References:**

1. Adi Ignatius (Editor-in-Chief), "Harvard Business Review", Harvard Business Publishing, Brighton, Massachusetts, 2021

**Course Outcomes:**

1. Identify one's values, strengths and weaknesses and their will to contribute to the society
2. Formulate an idea and validate it with customers
3. Demonstrate prototyping and analyse the competition for the product
4. Create business models for revenue generation and sustainability of their business
5. Come up with a pitch that can be used as the basis for actually starting a company based on an impactful innovation and societal impact

**CO-PO Mapping:**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4
CO1						3	1				
CO2		3		3	1	3	2				
CO3	1	3	3		3		3				
CO4					1	1	3				
CO5					3	3					

Note: 1 - Low Correlation 2 - Medium Correlation 3 - High Correlation

**APPROVED IN:**

**BOS :30-04-2021**

**ACADEMIC COUNCIL: 17-09-2021**

**SDG No. & Statement:**

4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.

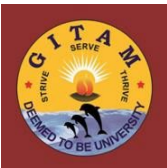
17. Strengthen the means of implementation and revitalize the global partnership for sustainable development.

**SDG Justification:**

4. The course involves identifying one's personal values and working on real-life problems, thus forming the base to work on their passions even past the collegiate life.

17. The course is developed in collaboration with North-eastern University, USA and the training for the champions is being by North-eastern University.

## **Faculty Core**

	HRMG1011	<b>Principles of Management</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>J</b>	<b>C</b>
			3					3
	<b>Course owner</b>	Department of HRM	Syllabus version		1.0			
	<b>Course Pre-requisite(s)</b>	NIL	Contact hours		45			
	<b>Course Co-requisite(s)</b>	NIL	Date Approved					
	<b>Alternate Exposure</b>							

One of the most important human activities is managing. Management can be traced back to ancient times whenever there was large-scale endeavor like great pyramids in Egypt, the Great Wall of China, Taj Mahal in India. All these required many people working in groups in a better-coordinated way to achieve a well-defined target over some time. In the present context, of globalization, because of the increasing role of large and complex organizations in the development of the economy, the concept of Management has become very significant for managing the business efficiently.

### Course Objectives

1. To understand the basic Principles and concepts of Management
2. To orient students on recent changes and developments in the field of management
3. To illustrate and evaluate the importance of planning, organizing, directing in decision making
4. To understand different Management challenges in 21st century

## Unit I Management Nature and Concept No of Hours - 09

Management: Nature, Definition, Characteristics and Scope of Management-Management as a Science or Art or Profession-Contemporary Issues and Challenges in Management of 21st Century-Levels of Management-Skills of a manager -Roles of a manager.

### Learning Outcomes

After completion of this unit, the student will be able to

- Describe and understand the nature and scope of Management L1
- Discuss different managerial roles in Business organization L2
- Illustrate contemporary issues in management of 21<sup>st</sup> Century L3

**Pedagogy Tools:** Case study, Discussion, Self-reading, Polls, Student Presentations

## Unit II Planning and Decision-Making No of Hours- 09

Planning: The Process of Planning, Objectives, Policy and Procedures, Forecasting and Decision Making. Strategic Planning—meaning and process MBO— meaning, process and requirements for implementation.

(b) Decision Making—Meaning; Types of decisions; Process; Significance; Limitations; – Rational economic model and administrative model; -Programmed and non-programmed decisions- Creativity and innovation- Blue Ocean & Red Ocean Strategy

### Learning Outcomes:

After completion of this unit, the student will be able to

- Describe the concept and objectives of Planning L1
- Discuss the process of MBO in organization L2
- Describe the Decision-making process in Business organizations L2
- Classify Programmed and Non-programmed decisions L3



- Construct and analyze 7s model framework in Business organization

L4

**Pedagogy Tools:** Case study, Discussion, Self-reading, Polls, Student Presentations

**Case Let (Not Exceeding 200 Words)**

**COURSE OUTCOMES:**

1. Explain the nature and scope of management.
2. Analyze the process of MBO.
3. Evaluate the different styles of leadership.
4. Explain the various structures of organization.
5. Explain the ethics in management.

**Text Book:**


1. L M Prasad, Principles and Practices of Management, Himalaya Publishing House
2. Rao, P.S. Principles of Management, Himalaya Publishing House.
3. Rao, V.S.P. & Krishna, V. H. Management: Text and Cases, Excel Book
4. Sharma, R.K & Gupta, S. Business Management (3rd edition), New Delhi: Kalyani Publishers.

**Additional Readings:**

1. Vikalpa, Indian Institute of Management
2. Journal of General Management., Mercury House Business Publications, Limited
3. Harvard Business Review, Harvard Business School Publishing Co. USA
4. Indian Management, AIMA, New Delhi
5. IJBMT Global Business Innovation, SPIRI
6. GITAM Journal of Management, GIM, GITAM (Deemed to be University)

	Programme Objectives (POs)												PSOs			
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	
CO1	2	1	0	0	1	0										
CO2	1	2	1	0	1	0										
CO3	1	1	0	1	2	1										
CO4	2	2	1	1	2	2										

1-Low, 2- Medium and 3- High Correlation

	OPTS1031	<b>Business Statistics</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>J</b>	<b>C</b>
			3					3
	<b>Course owner</b>	Department of Operations	Syllabus version		1.0			
	<b>Course Pre-requisite(s)</b>	NIL	Contact hours		45			
	<b>Course Co-requisite(s)</b>	NIL	Date Approved					
	<b>Alternate Exposure</b>							

This course aims at aiding the students in reaching a level of increased competence in business statistics and expands understanding of the applications of statistical concepts in business. Emphasis is placed upon learning statistical concepts through common business problems.

**Course objectives:**

1. Gain conceptual and working knowledge of Business Statistics and use it in the applications of business.
2. Learn the methods of solving problems on basic concepts and analytical business statistical model.
3. Enable students to access the relationship between two variables
4. Understanding of Indices and how to build them.
5. Enable the student to use introductory level of Transportation and queuing theory.

**UNIT - I Data collection and Measures of Central Tendency No of Hours: 09**

Collection and Presentation of Data Statistical data – Primary and Secondary; Methods of collection of Primary data; Presentation of Data – Textual, Tabular and Diagrammatic form (Line chart, Bar chart, Pie chart, Histogram, Frequency polygon and Ogive); Frequency distribution.

Measures of Central Tendency – Mean (A.M., G.M., H.M.), Median, Mode – different properties; Partition values – Quartiles, Deciles, Percentiles; Partition values from Ogives.

Measures of Dispersion – Range, Q.D., M.D., S.D. – their coefficients; comparing consistency; Different properties. Moments, Skewness and Kurtosis – Moments about an arbitrary number; Central Moments; Relation between central and non- central moments up to 4th order 2 3 and – coefficients.

**Learning Outcome:**

After completion of this unit, the student will be able to

- Describe data collection process L2
- Use techniques of organizing data in tabular and graphical forms to enhance data analysis and interpretation L3
- Use several numerical methods belonging to measures of central tendency and measures of dispersion to describe the characteristics of a data set L4
- Explain the properties and relationship between moments, skewness and kurtosis L2

**Pedagogy tools:** Blended learning, self-reading, flipped classroom

**UNIT - II Correlation Analysis No of Hours: 09**

Methods of Studying Correlation for Grouped and Ungrouped Frequency Distribution.

Regression Analysis: Equation of Regression Lines for Grouped and Ungrouped Frequency Distribution, Standard Error of Estimate.

**Learning Outcome:**

After completion of this unit, the student will be able to

- Explain how correlation analysis describes the degree to which two variables are linearly related to each other. L2
- Use regression analysis to estimate the relationship between two variables L3
- Apply correlation and regression analysis techniques to grouped and ungrouped frequency



L3distribution.

- Calculate standard error of estimate L4

**Pedagogy tools:** Blended learning, self-reading, flipped classroom

UNIT - III      Index Number      No of Hours: 09

Construction, Price and Quantity index numbers, Laspeyres', Paasche's, Edgeworth- Marshall's, Fisher's method, Relative methods, Tests of index number formulae: Time and Factor reversal tests, General index number, Chain base index number, Cost of living index number (CLI), Uses of CLI and its applications, Uses and limitations of index numbers. Analysis of Time Series - Components of a time series, Adjustment in time series, Measurement of trend by moving average and least squares methods (linear and quadratic trends), Measurement of seasonal variation by simple average method, Forecasting, De- seasonalisation.

**Learning Outcome:**

After completion of this unit, the student will be able to

- Explain how to calculate various kinds of index numbers L2
- Illustrate the uses and limitations of index numbers L2
- Understand the four components of a time series L2
- Evaluate the measurement of trend by various forecasting techniques L5

**Pedagogy tools:** Blended learning, self-reading, flipped classroom

UNIT - IV    Transportation and Assignment Problems    No of Hours: 09

Nature and scope of transportation and allocation models, different methods for finding initial solution N-W Corner Rule, Least Cost Method and VAM. Unbalanced TP, Test for optimality – MODI method, AP a variant of Transportation model, Hungarian method, Restricted Assignment problems.

Queuing Theory – Models – Simple Problem – Introduction to simulation

**Learning Outcome:**

After completion of this unit, the student will be able to

- Solve initial feasible solution for transportation problems using several methods and optimal L4solution using MODI method
- Determine how to solve assignment problems using Hungarian method L3
- Handle unbalanced transportation and assignment problems L5
- Analyse situations that generate queuing problems L4
- Understand the basic concepts of simulation L2

**Pedagogy tools:** Blended learning, self-reading, flipped classroom

**UNIT - V Probability and Sampling**

**No of Hours: 09**

Probability theory–concept and approaches; Probability rules – addition and multiplication theorem, Binomial, Poisson and Normal Distribution and their applications. Sampling–Purpose and Methods ofSampling, Merits and limitations of Sampling.

**Learning Outcome:**

After completion of this unit, the student will be able to

- Understand fundamentals of probability and various probability rules that help them to L2 measureuncertainty involving uncertainty.
- Analyse the uses of each probability distribution and how to find its values L4
- Explain the merits and limitations of sampling L2

**Pedagogy tools:** Blended learning, self-reading, flipped classroom

**COURSE OUTCOMES:**

1. Explain data collection process.
2. Calculate standard error of estimate.
3. Analyze the four components of time series.
4. Basic concepts of simulations.
5. Explain the merits and demerits of the sampling.

**Textbook(s):**

1. Gupta and Gupta, Business Statistics. (Sultan Chand & Sons: New Delhi).

**Additional Reading**

**Reference Book(s):**

1. Chandan, J. Statistics for Business Economics. (Vikas: New Delhi)
2. Sharma, Shenoy and Srivastava, Quantitative Analysis for Managerial Decision Making

**Journal(s):**

1. The Annals of Statistics, publisher Institute of Mathematical Statistics
2. Australian and New Zealand Journal of Statistics, Wiley-Blackwell Publishing

**Website(s)**

1. <https://sites.google.com/site/indianstatisticalassociation/Home>
2. <https://statsoc.org.au/>

	Programme Objectives (POs)												PSOs		
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
CO1	1	1	1	1	1	1									
CO2	1	2	1	2	2	2									
CO3	3	1	2	1	1	3									
CO4	1	1	1	3	3	1									
CO5	1	1	1	1	1	3									

1-Low, 2- Medium and 3- High Correlation

## LANG1081: SPECIAL ENGLISH

### COURSE OBJECTIVES

- Understand and appreciate different literary genres.
  - Recognize and analyze the main elements of different literary genres particularly short stories, essays, and poetry.
  - Demonstrate in written and oral form both the comprehension and the analysis of literary texts (poetry, prose, short stories and essays)
  - Appreciate and apply stylistic differences while communicating in a contemporary context for different purposes
  - Create reasonably professional scripts with correct and varied usage of grammatical structures and punctuation for accurate communication of ideas
- |  | L | T | P | S | J | C |
|--|---|---|---|---|---|---|
|  | 3 | 0 | 0 | 0 | 0 | 3 |

### LEARNING OUTCOMES

Upon successful completion of Unit 1, the student will be able to:

1. Demonstrate an understanding of poetry as a literary genre (L2)
2. Identify and describe poetic forms and poetic devices (L2,L3)
3. Analyze and effectively communicate ideas related to the poetic works for their structure and meaning, using correct terminology. (L3,L4)

### UNIT -I

#### Poetry

1. The Road Not Taken by Robert Frost
2. The Walrus and the Carpenter by Lewis Carroll
3. Captain! My Captain! by Walt Whitman
4. Sonnet 'No-60'-William Shakespeare
5. "The Sun Rising" by John Donne

### LEARNING OUTCOMES

Upon successful completion of Unit II, the student will be able to:

- Demonstrate an understanding of short story as a literary genre (L2)
- Identify and describe distinct literary characteristics of the short story form (L2,L3)
- Analyze and effectively communicate ideas related to the short stories for their structure and meaning. (L3,L4)

### UNIT-II

#### Short Stories

1. My Financial Career -Stephen Leacock
2. A Story from Confucius- Confucius
3. The Barber's Trade Union-Mulk Raj Anand
4. An Occurrence at Owl Creek Bridge by Ambrose Bierce
5. The Story of an Hour by Kate Chopin

### LEARNING OUTCOMES

Upon successful completion of Unit III, the student will be able to:

- Read essays, and opinions while analyzing the structural and sentence level arrangement of the writing.(L1)
- Examine effective unity, support, coherence, and mechanics in essays.(L4)
- Write essays considered appropriate for the undergraduate level (L5)

## UNIT-III

### Essays

1. "A Hanging" – George Orwell
2. "Self-Reliance"-Ralph Waldo Emerson
3. "Attitude"- Margaret Atwood
4. "The Responsibility of Intellectuals"- Noam Chomsky
5. "Letter To His 10-Year-Old Daughter- Richard Dawkins

## LEARNING OUTCOMES

Upon successful completion of Unit IV, the student will be able to:

- Engage with relevant scholarly works on contemporary issues (L1)
- Able to analyze, describe, and debate the complexities of globalization(L3)
- Situate one's own reading in terms of society, religion, caste, region, gender, and politics(L4)

## UNIT-IV:

### Contemporary Issues

1. "The Globalisation of Inequality"- P. Sainath
2. "Words from an Open Mind to a Closed or Sealed One"- Ramachandra Guha
3. "The idea of India" - Aruna Roy
4. "Why not a separate UN Charter on Casteism?"- K. Balagopal
5. "The root cause of corruption" -Tabish Khair

## LEARNING OUTCOMES

Upon successful completion of Unit V, the student will be able to:

- Use prewriting techniques to develop ideas in paragraphs and essays.(L2)
- Practice unity, coherence (including transitions), and appropriate writing style.(L2)
- Recognize and incorporate proper grammar and mechanics including parts of speech, verb tense,subject-verb agreement, word choice, spelling, commas, and other punctuation.(L1)
- Write a book/film review(L3)

## UNIT-V:

Coursera Courses:

- Advanced Grammar & Punctuation Project (UCI Division of Continuing Education) 20 hours
- Advanced Writing (UCI Division of Continuing Education) 26 hours

Book/Film Review

## COURSE OUTCOMES

Upon successful completion of the course, the student will be able to:

4. Recognize and incorporate proper grammar and other mechanics of language in one's communication acts.(L1, L3)
5. Demonstrate an understanding of the distinct literary characteristics of poetry, short story and essays literary genres (L2)
6. Analyze and effectively communicate ideas related to the prescribed literary genres for their structure and meaning, using correct terminology. (L3,L4)
7. Write paragraphs, essays and reviews with the complexity considered appropriate for the undergraduate level (L3,L5)
8. Analyze, describe, and debate the complexities of globalization, situating own reading in terms of society, religion, caste, region, gender, and politics (L3, L4)

## LANG1091: HINDI

.L T P S J C  
3 0 0 0 0 3

### INTRODUCTION

This course contains a rich selection from Hindi poetry and prose. Grammar and translations from official language are also included.

### COURSE OBJECTIVES

- 1) To enlighten students about the richness and value of the national language
- 2) To offer working knowledge of Hindi to the students.

### SYLLABUS

#### गद्यविभाग (Prose Detailed Text)

1. बाजारदर्शन - श्रीजैनेन्द्रकुमार
2. ईर्ष्या, तूनागईमेरेमनसे - रामधारीसहस्रसदनकर
3. आपनेमेरीरचनापढ़ी? - हजारीप्रसादसिवेदी
4. भारतीयसासह्यकीएकता - नन्ददुलारेवाजपेयी
5. असतसि - रामसवलासरमा
6. मेरीरुमालखोगई - सवद्यासनवाससमश्र
7. कसवऔरकसवता - आचायमहावीरप्रसादसिवेदी
8. -
9. कफ़न -

#### उपविचकविभाग (Non Detailed Text)

1. पुरस्कार - जयर्करप्रसाद
2. विार - मन्मूभडारी
3. सदाचारकातावीज - हररर्करपरसाई
4. आदमीकाबच्चा - यर्पाल
5. हारकीजीत - सुदर्न
6. ठाकुरकाकुआ - मर्ीप्रेमचन्द
7. उसनेकहािा - चदधरर्मागुलेरी
8. रोज - अक्केय
9. चीफकीदावत - भीष्मसाहनी

#### व्याकरणविभाग

I. सनदेर्के अनुसारवाकोकोबदलकरसलखखए  
(Rewriting of sentences as directed)

1. कारक (case)
2. सलग (gender)
3. वचन (number)
4. वाच्य (voice)

II. र्ुद्धकीसजए (correction of sentences)

1. चासहएप्रयोग

2. सलगऔरवचनसिंबधी

III. वाक्प्रयोग (make your own sentences)

IV. कायालयहदी: प्रसासनक

बर्दबली / परनाम (karyalay Hindi : Administrative terminology)

1. कायालयो के नाम
2. पदनाम

V. ससथसवच्छेद

VI. सवलोमबर्द

VII. पत्रलेखन

VIII. गधार्के आधारपरसदणययेर्नोकाउत्तरदेनाचासहए

VII. सनबंध

## COURSE OUTCOMES

- 1) The student learns reading and writing Hindi
- 2) Understands and learns proper use of Grammar
- 3) Develops communication Skills.

## TEXTBOOK

- 1) Prose Text: Dr.Ajaya Kumar Patnaik, Gadya Gaurav, Sonam Prakashan, Badamda di, Cuttak.
- 2) Non, Detailed Text: Dr. Gulam Moinuddin Khan, Charchit Kahaniyan, Shabnam Pustak Mahal, Badamdadi, Cuttak.Text: Dr.T.Nirmala & Dr. S. Mohan, Padya Manjari, Rajkamal Prakashan, New Delhi.\* Latest Editions

## LANG1101: SANSKRIT

L T P S J C  
3 0 0 0 0 3

### INTRODUCTION

This course contains a rich selection from Sanskrit language and literature.

### COURSE OBJECTIVES

- 1) To enlighten students about the richness and value of the classical language
- 2) To offer working knowledge of Sanskrit to the students.

### SYLLABUS

- POETRY :
- Lesson No. 1 Saranagathi  
From Valmiki Ramayanam Yuddhakanda  
17<sup>th</sup> Canto Slokas 11 – 68
- Lesson No. 2 Ahimsa Paramodharmah  
From Srimadbharatam, Adiparva 8<sup>th</sup>  
chapterSloka 10 – to the end of 11 Chapter
- Lesson No. 3 Raghoh Audaryam  
From Raghuvamsa 5<sup>th</sup> Canto 1 – 35 Slokas
- PROSE :
- Lesson No. 4 Mitrasampraptih  
From Pancatantra – Ist Story (Abridged)
- Lesson No. 5 Modern prose Chikroda katha  
Andhra Kavya Kathah  
By Sannidhanam Suryanarayana Sastry
- Lesson No. 6 Computer Yanthram  
By Prof. K.V. Ramakrishnamacharyulu

### GRAMMAR

#### DECLENSIONS:

##### Nouns ending in Vowels:

Deva, Kavi, Bhanu Dhatr, Pitr, Go, Rama, Mati, Nadee, Tanu, Vadhuo, Matr,  
Phala, Vari & Madhu

#### SANDHI:

Swara Sandhi : Savarnadeergha, Ayavayava, Guna, Vrddhi, Yanadesa

Vyanjana Sandhi : Scutva, Stutva, Anunasikaditva, Anunasika, Latva, Jastva

Visarga Sandhi : Visarga Utva Sandhi, Visargalopa Sandhi, Visarga Repha Sandhi, Ooshma Sandhi

SAMASA :

- |                         |                         |
|-------------------------|-------------------------|
| (1) Dwandwa             | (2) Tatpurusha (Common) |
| (2a) Karmadharaya       | (2b) Dwigu              |
| (2c) Paradi Tatpurusha  | (2d) Gatitatpurusha     |
| (2e) Upapada Tatpurusha | (3) Bahuvrihi           |
| (4) Avyayibhava         |                         |

CONJUGATIONS

Ist Conjugations – Bhoo, Gam, Sthta, Drhs Labh, Mud,

IIInd Conjugation – As ( )

IIIrd Conjugation – Yudh,

IV th Conjugation – Ish

VIII Conjugation – Likh, Kri ( )

IXth Conjugation – Kreen ( )

Xth Conjugation – Kath, Bhash, Ram, Vand,

**COURSE OUTCOMES**


- 1) The student learns reading and writing Sanskrit
- 2) Understands and learns proper use of Grammar
- 3) Develops communication Skills.





## **COURSE OUTCOMES**

- 1) The student learns reading and writing Telugu
- 2) Understands and learns proper use of Grammar
- 3) Develops communication Skills.

	<b>HRMG1041</b>	<b>Management of Human Resources</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>J</b>	<b>C</b>	
			3					3	
	<b>Course owner</b>	Department of HRM	<b>Syllabus version</b>				1.0		
	<b>Course Pre-requisite(s)</b>	NIL	<b>Contact hours</b>				45		
	<b>Course Co-requisite(s)</b>	NIL	<b>Date Approved</b>						
	<b>Alternate Exposure</b>								

This course aims to provide the students with a basic understanding of the concepts, systems of human resource development in organizations. The turbulent business climate, caused by increased global price competitiveness, changing technologies, changing employment legislation, and challenging workforce composition, is challenging managers to utilize their employees more effectively to gain a competitive advantage. In recent years, there have been significant practical developments, with increasing numbers of private and public sector organizations adopting HRM initiatives alongside downsizing and reengineering the organization.

### Course Objectives

- To develop competencies and knowledge of students to become Human resource management professionals.
- To orient students in the field of Logistics
- To help students to understand Human resource management

### UNIT –I Introduction

**No of Hours 05**

Introduction to HRM – Functions of HR management – Qualities of HR manager – Role of HE Executives – International HRM – Concepts of IHRM - Approaches of IHRM – Features of IHRM – Importance of IHRM – Factors affecting IHRM.

### Learning Outcomes:

After completion of this unit, the student will be able to

- Identify the difference between the traditional view of human resource management (HRM) and IHRM's current view. L1
- Describe the HR challenges and Skills L2
- Understanding alternative approaches to managing human resources and appreciating the diversity of factors that motivate workers. L5

**Pedagogy tools:** Blended learning, Case let video lectures, self-reading, corporate reports, and online tools for proper engagement. (Menti Meter, Kahoot)

### UNIT –II Procurement

**No of Hours 10**

Human Resource Planning – Objectives of HR Planning – HR Planning at different levels – Process of HR Planning – Job Analysis and Design: Job Analysis Information – Uses of Job Analysis – Process of Job Analysis – Methods of Collecting Job Analysis Data – Job Description – Recruitment and Selection – Recruitment Policy – Objectives of Recruitment – Selection Procedure – Essentials of Selection – Process -steps in the selection procedure.

### Learning Outcomes:

After completion of this unit, the student will be able to

- Describe the process of workflow analysis and identify why it is essential to HRM. L2
- Briefly discuss the significant challenges and constraints involved in the recruiting process. L3
- Understands various steps in the selection process and why it is so essential to the organization. L1

**Pedagogy Tools:** Case let, video lectures, self-reading, TED talks, Online dashboards for recruitment and selection, Guest lectures.

### **UNIT –III Development**

**No of Hours 10**

Promotion, Transfer, Job Rotation & Career Planning, Career Development – Need for Career Planning – Career Development – Suggestions for Effective Career Development – Performance Appraisal – Evaluation Process – Performance Appraisal Methods – Management by Objectives – Behaviorally Anchored Rating Scale – Pitfalls in Performance Appraisal – Uses of Performance Appraisal.

#### **Learning Outcomes:**

After completion of this unit, the student will be able to

- Understand the concepts of Career Planning and Development L1
- Describe the concepts of gamification, digital learning, and micro-learning and why they have become more critical in today's organizations. L5
- Identify the difference between performance management and performance appraisals. L2
- Identify some of the common problems and how to avoid the problems with performance appraisals. L2

**Pedagogy Tools:** Case let, video lectures, self-reading, Online survey and assessment, HR executive Interviews.

### **UNIT –IV Compensation and Maintenance**

**No of Hours 10**

Employee Training and Development – Steps in Training Programmes – Training Evaluation – Areas of Training – Importance of Learning – Employee Training Methods – Evaluating Management Development Program. Compensation Management – Process of Job Evaluation – Techniques of Job Evaluation – Advantages of Job Evaluation – Types of Incentive Plans – Employee Benefits – Objectives of Employee Benefits.

#### **Learning Outcomes:**

After completion of this unit, the student will be able to

- List various factors determining pay rates. L1
- Understands the significant difference between training and development and identify the everyday situations where may be needed. L1
- Understands the difference between primary and supplementary compensation L2
- Understands how Employee Benefits helps for organization effectiveness L4

**Pedagogy tools:** Case let, video lectures, self-reading, Minor survey and report writing, Report analysis and Trend analysis on compensation, Industrial visit to know about the QWL standards

### **UNIT – V Integration and Separation**

**No of Hours 10**

Occupational Safety and Health – Causes of Safety and Health Problems at the workplace – Provisions to prevent accidents in the workplace – Stress and Consequences on Employee performance. Grievance Handling – Concept of Grievance – Causes of Grievance – Effective Grievance Redressal – Steps in Grievance Redressal procedures. Discipline Action – Aims and Objectives of Discipline – forms and types of discipline – principles of maintaining discipline – Disciplinary procedure – types of disciplinary actions – dismissal.

**Learning Outcomes:**

After completion of this unit, the student will be able to

- Analyze the role of the supervisor in employee safety and minimize accidents at the workplace. L4
- Discuss the various provisions to prevent accidents in the workplace L3
- Describe the laws for grievance and maintain the discipline procedure in the company L2

**Pedagogy tools:** Case let, video lectures, self-reading, Roleplays, Group discussions, Discussions with Union/Welfare officer for industry exposure.

**Course Outcomes:**

1. Explain the traditional view of human resource management.
2. Describe the process of workflow analysis.
3. Explain the career planning and development.
4. The process of compensation and maintenance.
5. Analyze the role of supervisor in employee safety.

**Textbook(s):**

- Gary Dessler & Biju Varkkey, "Human Resource Management," Pearson, New Delhi, 16th edition.
- George W Bohlander, Scott A Snell, "Principles of Human Resource Management," Cengage Learning, 2017.16th edition.
- Aswathappa, K., Human Resource and Personnel Management: Text & Cases, TMGH
- Subba Rao, P., Personnel and Human Resource Management (Text & Cases), Himalaya

**Reference Book(s):**

- Edwin B Flippo, "Personnel Management," Tata McGraw Hill Publishing, New Delhi, 1984
- John H. Bernardin, "Human Resource Management - An Experiential Approach," Tata McGraw Hill, New Delhi, 2013
- Mirza, Saiyadain, "Human Resource Management," Tata McGraw Hill, New Delhi, 2013
- Gary Dessler & Biju Varkkey, "Human Resource Management," Pearson, New Delhi, 2015 14th edition.


**Journal(s)**

- Harvard Business Review, Harvard Business School Publication USA
- People Matters online Magazine
- Human Capital Magazine
- Vikalpa, Indian Institute of Management, Ahmedabad

**Website(s):**

	Programme Objectives (POs)												PSOs			
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	
CO1	1	1	0	2	2	1	0	1								
CO2	2	3	1	2	2	0	1	2								
CO3	1	2	1	2	2	0	1	0								
CO4	1	1	0	2	2	0	2	2								
CO5	1	2	3	2	1	0	2	2								

1-Low, 2- Medium and 3- High Correlation

	ACCN1131	Management and Cost Accounting	L	T	P	S	J	C	
									
			3					3	
	<b>Course owner</b>	Department of Finance	Syllabus version				1.0		
	<b>Course Pre-requisite(s)</b>	NIL	Contact hours				45		
	<b>Course Co-requisite(s)</b>	NIL	Date Approved						
	Alternate Exposure								

This course is designed with an overview to management and cost accounting, It focuses on cost concepts, cost units, activity based costing. This course will give more insights of managerial decision-making process based on financial statement analysis of the firm. It also concentrates on standard costing concepts where to measure the performance of the work. It would be a tool to analyse the various kinds of variances.

### Course Objectives

1. To develop competencies and knowledge of students to become Management and cost accounting professionals
2. To orient students in the field of Logistics
3. To help Students to understand Management and cost accounting

### UNIT– I Cost Accounting

**No.of Hours: 8**

Concept of Cost Centres - Cost Units - Classification of Cost–Overheads-Simple Cost Sheet–historical and estimated cost Sheets-Tenders and Quotations-Contract costing- Activity based costing (ABC). Management Accounting: Meaning and Definition-Nature and Scope -Objectives of Management Accounting-Importance and Limitations - Management Accounting vs. Cost Accounting.

#### Learning outcomess:

After completion of this unit, the student will be able to

- Understand the basics Cost Accounting Principles, Concept of Tenders & cost sheet.L1
- Can know how to prepare cost sheet, activity based costing L4
- Can understand management accounting and cost accounting L2

**Pedagogy tools:** Blended learning, Case let, video lectures, self-reading/Practice

### UNIT – II Marginal Costing & Break Even Analysis

**No of Hours: 10**

Marginal Costing and Cost-Volume-Profit (CVP) analysis: meaning, concept - assumptions and practical applications of Break - even analysis – decisions regarding sales mix - make or buy - limiting factor - export decision - plant merger - shut down of a product line-DuPont Analysis.

#### Learning Outcomes:

After completion of this unit, the student will be able to

- Understand marginal costing analysis L1
- Knowing about decision making skills L2
- Understand DuPont analysis L3

**Pedagogy tools:** Blended learning, Case let, self-practice

### **UNIT– III Budgeting & Budgetary Control No of Hours: 10**

Budget and Budgetary Control: Meaning, - establishing a system of Budgetary Control - Preparation of Sales - Production - Cash Budget - Fixed and Flexible budgets, Master budget - Zero based budgeting(ZBB) - Performance budgeting.

#### **Learning Outcomes:**

After completion of this unit, the student will be able to

- Understand various budgetary control techniques L2
- Aware of establishing a system of Budgetary Control L3
- Understands various budgets and their preparation. L5
- Can know how to prepare zero based budget and performance budgets L5

**Pedagogy tools:** Blended learning, Case let, video lectures, self-reading/practice

### **UNIT– IV Analysis of Financial Statements No of Hours: 10**

Analysis and Interpretation of Financial Statements: Objects - importance - Types of financial analysis - Comparative statements - Common size statements, Ratio analysis - Preparation of Balance sheet using ratios Funds flow analysis: Funds flow statement - Preparation - Cash flow statement - cash flow analysis - Analysis of income statements of ports/shipping companies.

#### **Learning Outcomes:**

After completion of this unit, the student will be able to

- Understand the financial statements analysis L2
- Can analyse financial statement by using different techniques like ratios, funds flow statement L5
- Can able to analyse income statement of ports/shipping companies. L5

**Pedagogy tools:** Blended learning, Case let, video lectures, self-reading/practice

### **UNIT – V Standard Costing & Variance Analysis No of Hours: 10**

Standard Costing and Variance Analysis: Meaning of Standard Cost - Relevance of Standard Cost for Variance Analysis –Significance of Variance Analysis – Computation of Standard Costs for Materials, Labour and Overhead Variances- Comparison between Budgeting and Standard Costing – Variance reporting- Responsibility Accounting – Meaning and Objects – types of Responsibility Centres- Management Reporting.

#### **Learning Outcomes:**

After completion of this unit, the student will be able to

- Understand importance of standard costing and variance analysis L2
- Computation of standard cost for material, labor and overheads L4
- Understand comparison between budgeting and standard costing L2
- Understand how to create responsibility centres L5

**Pedagogy tools:** Blended learning, Case let, video lectures, self-reading

#### **Course Outcomes:**

1. Basic Principles of cost accounting.
2. Explain the Break-Even analysis.
3. Establishing a system of budgetary control.
4. Understand the financial statement analysis.

5. Importance of standard costing and Variance Analysis.

**Textbook(s):**

1. MAHESHWARI, S.N., (2013) Cost and Management Accounting. 14<sup>th</sup> edition
2. JAIN, S.P. & NARANG, K.L. (2014) Cost and Management Accounting. 14<sup>th</sup> Edition, Kalyani publishers: New Delhi

**Reference Books:**

1. TULSIAN, P.C. (2000) Practical Costing. Vikas Publications: New Delhi.
2. SAXENA, V.L. & VASHISHT (2014) Advanced Cost & Management Accounting-Problems & Solutions. Prentice Hall of India.
3. MAHESHWARI, S.N. (2014) Principles of Management Accounting. Sultan Chand & Sons.
4. MURTHY & GURUSAMY (2009) Management Accounting. Tata McGraw Hill: New Delhi.
5. REDDY, S. & HARI PRASAD REDDY (2014) Cost & Management Accounting. Margham Publications.

**Journal(s):**

1. GITAM Journal of Management, GITAM University
2. The Chartered Accountant, New Delhi.
3. The Management Accountant, Kolkata,
4. Journal of Management Accounting and Research, Jaipur.
5. Indian Journal of Commerce, IGNOU, New Delhi.

**Websites:**

1. <https://icmai.in/icmai/index.php>


	Programme Objectives (POs)												PSOs			
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	
CO1	1	0	0	0	0	0										
CO2	1	2	0	1	0	0										
CO3	2	2	3	2	1	2										
CO4	2	2	3	2	1	2										

1-Low, 2- Medium and 3- High Correlation



## **PROGRAM CORE SYLLABUS**

## LEVEL - 1

	OPTS1021	<b>Fundamentals of Logistics</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>J</b>	<b>C</b>	
			3					3	
	<b>Course owner</b>	Department of Operations	<b>Syllabus version</b>				1.0		
	<b>Course Pre-requisite(s)</b>	NIL	<b>Contact hours</b>				45		
	<b>Course Co-requisite(s)</b>	NIL	<b>Date Approved</b>						
	<b>Alternate Exposure</b>								

Fundamental of Logistics is primarily concerned with the efficient integration of transporters, suppliers, factories, warehouses and stores so that merchandise is produced and distributed in the right quantities, to the right locations and at the right time, and so as to optimize cost subject to satisfying service quality requirements.

Therefore, this course is designed to:

- Understand the process model of logistics that describes movement of goods and services to the customers' end.
- Know the role of logistic managers, in particular the importance of focusing on whole supply chain who are outside this boundary, as well as on other aspects of the logistics management.

### Course Objectives

1. Understand the fundamental of logistics management using manufacturing and service examples.
2. Identify the roles and responsibilities of logistics managers in different organizational contexts.
3. Apply the inventory and warehousing management concepts for decision-making
4. Analyze the various services to identify areas for improvement
5. Evaluate strategies for improvement in transportation and movement contexts

### UNIT - I Introduction to Logistics

**No of Hours: 9**

History of Logistics Need for logistics - Cost and Productivity, cost saving & Productivity Improvement. Logistics Cost, reduction in logistics cost, benefits of efficient Logistics, Principles of Logistics, Technology & Logistics - Informatics, Logistics optimization. Listing of Sub – sectors of Logistics.

#### Learning Outcomes:

After completion of this unit, the student will be able to

- |   |    |
|---|----|
| • Illustrate the evolution of logistics                                       | L1 |
| • Explain the role of logistics in an organization                            | L2 |
| • Appreciate the dimensions that make up the logistics management             | L2 |
| • Analyze the need and importance of logistics in supply chain                | L4 |
| • Evaluate the crucial role of logistics management in organizational success | L5 |

**Pedagogy tools:** Blended learning, case study, video lectures, self-reading

### UNIT - II Logistics and Customer Service

**No of Hours: 9**

Definition of Customer Service Elements of Customer Service - Phases in Customer Service - Customer Retention - Procurement and Outsourcing - Definition of Procurement / Outsourcing -

Benefits of Logistics Outsourcing - Critical Issues in Logistics.

**Learning Outcomes:**

After completion of this unit, the student will be able to

- Understand the concept of customer service elements L2
- Explain the phases of customer service L2 •
- Evaluate the advantages of customer retention L5
- Analyze the factors that influence the choice and benefits of logistical services outsourcing L4
- Analyze the critical issues in logistics L4

**Pedagogy tools:** Blended learning, case study, video lectures, self-reading

**UNIT - III Global Logistics**

**No of Hours: 9**

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

**Learning Outcomes:**

After completion of this unit, the student will be able to

- Analyze the markets and competition L4
- Understand the concept and organization of logistics globally L2
- Evaluate financial issues in logistics performance L5
- Understand the role of 3PL & 4PL L2
- Analyze the importance of integration of activity centres L3

**Pedagogy tools:** Blended learning, case study, video lectures, self-reading

**UNIT - IV Warehouse**

**No of Hours: 9**

Warehouse - Meaning, Types of Warehouses Benefits of Warehousing. Transportation - Meaning; Types of Transportations, efficient transportation system and benefits of efficient transportation systems; Courier/Express - Courier/Express - Meaning, Categorization of Shipments, Courier Guidelines, Pricing in Courier - Express Sector for international and domestic shipping E-Commerce - Meaning, Brief on Fulfillment Centres, Reverse logistics in e-commerce sector, marketing in e-commerce and future trends in e-commerce

**Learning Outcomes:**

After completion of this unit, the student will be able to

- Understand concept and need of warehouse L2
- Apply various strategies of warehousing L3
- Explain the benefits and importance of efficient transportation system L2
- Understand marketing and reverse logistics process in e-commerce sector L2
- Analyze future trends in e-commerce L4

**Pedagogy tools:** Blended learning, case study, video lectures, self-reading

**UNIT - V EXIM**

**No of Hours: 9**


Brief on EXIM / FF & CC, Multi-modal transportation, brief on customs clearance, bulk load handling and brief on transshipment; Supply chain, Cold chain, Liquid Logistics, Rail Logistics.

**Learning Outcomes:**

After completion of this unit, the student will be able to



1-Low, 2- Medium and 3- High Correlation

	OPTS1041	<b>Materials Management</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>J</b>	<b>C</b>	
			3					3	
	<b>Course owner</b>	Department of Operations	Syllabus version				1.0		
	<b>Course Pre-requisite(s)</b>	NIL	Contact hours				45		
	Course Co-requisite(s)	NIL	Date Approved						
	Alternate Exposure								

Materials Management involves inventory management, value analysis, storekeeping, maintenance and upkeep of the inventories in hand and process. The objective of Materials Management is to provide an unbroken chain of components for production to manufacture goods on time for the customers.

Materials management is concerned with management functions supporting the complete cycle of material flow, from the purchase and internal control of production materials to planning and control of work in process, to warehousing, shipping and distribution of the finished product. The following are the primary objectives of Materials management- Low Prices, Lower Inventories, Reduction in Real Cost, Regular Supply, Procurement of Quality Materials, Efficient handling of Materials and Enhancement of firm's goodwill.

Therefore, this course is designed to:

- Understand the utilization of materials management from the basic understanding to purchasing and inventory management in the system.
- Know the role of planning of material requirement, quality control and standardization of inventory.

**Course Objectives**

1. Understand the basics of materials management and tradeoff between customer service and cost.
2. Identify the roles of purchasing, negotiation, bargaining and the vendor relations.
3. Apply the knowledge in forecasting the demand, material requirement planning and bill of materials.
4. Analyze and control the quality of material.
5. Evaluate strategies for optimization of the handling and transportation cost.

**UNIT - I Introduction to Material Management**

**No of Hours: 09**

Introduction: Materials Management - Evolution, Importance, Scope and Objectives - Interface with other functions. Concept of Logistics and Supply Chain Management and evolution to 4PL- Supply Chain Management-Objectives, Components, Significance, Trade off Customer Service & Cost.

**Learning Outcomes:**

After completion of this unit, the student will be able to

- Explain the role of materials management in an manufacturing industry L2
- Illustrate the dimensions - supply chain management, third party logistics, and fourth party logistics. L2
- Analyse the interface of materials management with other related functions. L4
- Evaluate the crucial role of materials management in taking competitive advantage. L5
- Apply different strategies for making a trade off among cost, customer service levels and quality. L3

**Pedagogy tools:** Blended learning, case study, video lectures, self-reading

## **UNIT - II Purchasing in Materials Management**

**No of Hours: 09**

Purchasing: Purchasing in Materials management- system concept- purchasing and procurement activities under Materials management- Value Analysis and value Engineering- Purchasing and quality Assurance- Purchase Cycle– Negotiation & Bargaining– Vendor relations- Purchasing Methods-Global Sourcing- Stores–Functions, Importance, Organization of stores & Stores layout. Stores procedure– documentation

### **Learning Outcomes:**

After completion of this unit, the student will be able to

- Understand the activities related to material procurement. L2
- Explain the role of value engineering and purchase cycle. L2
- Evaluate the value analysis and quality assurance. L5
- Analyse the vendor selection. L4
- Analyse the global sourcing and the store layout. L4

**Pedagogy tools:** Blended learning, case study, video lectures, self-reading

## **UNIT - III Inventory Management & Material Requirement Planning**

**No of Hours: 09**

Inventory- Need of Inventory- Types of Inventory- Basic EOQ Model- EOQ with discounts- Classification of material- ABC

Analysis- VED, HML, FSN, GOLF, SOS (Numerical expected on Basic EOQ, EOQ with discounts & ABC)

Material Requirement Planning (MRP)- Advantages over conventional planning (Order Point Method)– Input and output of MRP system- Forecasting– Overview of quantitative and qualitative methods of forecasting- Master Production Schedule Bill of Materials– BOM Explosion- Material flow in MRP.

MRPII. Concept of ERP. (Numerical likely on BOM Explosion, estimating Net

### **Learning Outcomes:**

After completion of this unit, the student will be able to

- Analyse the reorder point and economic order quantity. L4
- Understand the importance of material classification and can classify the materials by various techniques. L2
- Evaluate the material requirement planning and strategies to meet demand. L5
- Understand the master production schedule and evaluate the bill of material. L2
- Apply the concept of ERP for material management. L3

**Pedagogy tools:** Blended learning, case study, video lectures, self-reading

## **UNIT - IV Quality Control of Material**

**No of Hours: 09**

Quality control of material: Incoming material quality control- statistical quality control- governmental purchasing practices and procedures- Inventory control & Cost Reduction techniques: Inventory turns ratios- Standardization– need and importance. Codification– concept, benefits. Value Engineering and Value Analysis– concept and process.

### **Learning Outcomes:**

After completion of this unit, the student will be able to

- Understand the role of quality control in material management. L2
- Apply the statistical quality control techniques. L3
- Analyse the optimization of cost of material. L4
- Understand the process of value analysis. L2
- Apply the cost reduction techniques in real cases. L3

**Pedagogy tools:** Blended learning, case study, video lectures, self-reading

**UNIT - V Material Handling and Storage Systems**

**No of Hours: 09**

Materials handling and storage systems, Physical distribution logistics - transportation, Traffic and claims management - operations research and related techniques- Principles of Materials Handling system - Materials Handling Equipment– Safety issues.

**Learning Outcomes:**

After completion of this unit, the student will be able to

- Understand the need for material handling and storage systems. L2
- Apply the operations research techniques. L3
- Explain the material handling equipment. L2
- Understand the principles of material handling system. L2
- Analyze the safety issues in material management. L4

**Pedagogy tools:** Blended learning, case study, video lectures, self-reading

**COURSE OUTCOMES:**

1. Explain the role of materials management in manufacturing industry.
2. Analyze the activities related to materials procurement.
3. Apply the concept of EPR for materials management.
4. The process of value analysis.
5. Explain the material handling equipment.

**Textbook(s):**

1. Datta A.K. Materials Management, Procedures Text and Cases, PHI Learning Private Limited.

**Additional Reading**

**Reference Book(s):**

1. Arnold, J. K., Introduction to Materials Management, 6th Ed., Pearson Education Limited.
2. Sharma, S. C., Materials Management and Materials Handling, Khanna Publishers.

**Journal(s):**


1. International Journal of Logistics Management, Emerald publisher.
2. Journal of Purchasing and Materials Management, Wiley publisher.

**Website(s)**

1. [www.poms.org](http://www.poms.org)

	Programme Objectives (POs)												PSOs			
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	
CO1	3	0	0	0	0	0										
CO2	3	1	2	0	1	2										
CO3	0	3	0	3	0	0										
CO4	3	0	0	2	0	2										
CO5	0	0	3	0	2	0										

1-Low, 2- Medium and 3- High Correlation

	OPTS1051	<b>Warehousing and Distribution Centre for Operation</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>J</b>	<b>C</b>	
				3					3
	<b>Course owner</b>	Department of Operations	Syllabus version					1.0	
	<b>Course Pre-requisite(s)</b>	NIL	Contact hours					45	
	Course Co-requisite(s)	NIL	Date Approved						
Alternate Exposure									

The course deals with various approaches, and techniques used in the design and operation of warehouse and distribution process of global supply chains. The material is taught from a managerial perspective, with an emphasis on where and how specific tools can be used to improve the overall performance of logistics system. We place a strong emphasis on the development and use of basic and analytical knowledge to illustrate the underlying concepts involved in both intra- and inter-company logistics operations.

### Course Objectives

1. To develop competencies and knowledge of students to become warehouse professional
2. To orient students in the field of logistics
3. To help Students to understand warehousing and distribution centre operations
4. To apply the basic knowledge of warehousing and distribution centre operations in the real-lifesituation
5. To incorporate and manage uncertainty and risk associated with warehouse and distributionoperations

### UNIT - I Introduction to Warehouse

**No of Hours: 09**

Introduction to Warehouse (Storage and Packaging) Background – Need for Warehouse– Importance of warehouse-Types of Warehouses-Broad functions in a warehouse-warehouse layouts and layout related to functions. Associate warehouse Its functions-equipment available in associate warehouse-Video on warehouse–Visits to warehouses-Warehouse Organization Structure-Benefits of Warehousing.

### Learning Outcomes:

After completion of this unit, the student will be able to

- Explain the need and importance of warehouses in an organization L2
- Classify the different types of warehouses L2
- Describe the broad functions of warehouses L2
- Analyze the warehouse layouts and layout related to functions L4
- Explain the benefits of warehousing L2

**Pedagogy tools:** Blended learning, case study, video lectures, self-reading

### UNIT - II Receiving and Dispatch of Goods in warehouse

**No of Hours: 09**

Receiving and Dispatch of Goods in warehouse Various stages involved in receiving goods–Stages involved receipt of goods-Advanced shipment notice (ASN) or invoice items list-Procedure for Arranging of goods on dock for counting and Visual inspection of goods unloaded-Formats for recording of goods unloaded from carriers-Generation of goods receipt note using computer-Put awayof Goods-Put away list and its need-Put away of goods into storage locations-storage location codes



and its application-Process of put away activity-Procedure to Prepare Warehouse dispatches

**Learning Outcomes:**

After completion of this unit, the student will be able to

- Explain various stages involved in receiving goods. L2
- Explain advanced shipment notice (ASN) or invoice items list L2
- Illustrate the procedure for arranging of goods on dock for counting and visual inspectionL2
- Describe the process of put away activity L2
- Explain the procedure to prepare warehouse dispatches L2

**Pedagogy tools:** Blended learning, case study, video lectures, self-reading

**UNIT - III Warehouse Activities**

**No of Hours: 09**

Warehouse Activities Explain receiving, sorting, loading, unloading, Picking Packing and dispatch, activities and their importance in a warehouse-quality parameters-Quality check-need for quality check-importance of quality check. Procedure to develop Packing list / Dispatch note-Cross docking method- Situations suited for application of cross docking information required for coordinating cross docking-Importance of proper packing-Packing materials-Packing machines reading labels

**Learning Outcomes:**

After completion of this unit, the student will be able to

- Understand the basic warehouse activities and their importance L2
- Analyse the parameters for quality checking L4
- Understand the procedure to develop packing list or dispatch note L2
- Apply cross docking method L3
- Explain the importance of proper packing L2

**Pedagogy tools:** Blended learning, case study, video lectures, self-reading

**UNIT - IV Warehouse Management**

**No of Hours:09**

Warehouse Management: Warehouse Utilization Management - Study on emerging trends in warehousing sector-DG handling-use of Material Handling Equipment's in a warehouse-Inventory Management of a warehouse-Inbound & Outbound operations of a warehouse and handling of Inbound& Outbound operations. Distribution-Definition-Need for physical distribution- functions of distribution-marketing forces affecting distribution. The distribution concept-system perspective. Channels of distribution: role of marketing channels-channel functions-channel structure-designing distribution channel-choice of distribution channels

**Learning Outcomes:**

After completion of this unit, the student will be able to

- Explain the use of materials handling equipment in a warehouse L2
- Apply inventory management in a warehouse L3
- Differentiate inbound and outbound operations of a warehouse L4
- Explain the need for physical distribution L2
- Evaluate the choice of distribution channels L5

**Pedagogy tools:** Blended learning, case study, video lectures, self-reading

## UNIT - V Warehouse Safety Rules and Procedures

No of Hours: 09

Warehouse Safety Rules and Procedures: The safety rules and Procedures to be observed in a Warehouse-Hazardous cargo– Procedure for Identification of Hazardous Cargo-safety data sheet- Instructions to handle hazardous cargo- Familiarization with the industry. Health, Safety & Environment-safety Equipment and their uses- 5S Concept on shop floor. Personal protective Equipment's (PPE) and their uses.

### Learning Outcomes:

After completion of this unit, the student will be able to

- Apply the safety rules and procedures to be followed in a warehouse L3
- Analyze safe handling of the hazardous cargo in a warehouse L4
- Explain the safety equipment and their uses L2
- Apply 5S Concept on shop floor L3
- Understand the personal protective equipment and their uses L2

**Pedagogy tools:** Blended learning, case study, video lectures, self-reading

### COURSE OUTCOMES:

1. Classify the different types of warehouse.
2. Explain the concept of put away activity.
3. Apply docking method.
4. Explain the need for physical distribution.
5. Apply the safety rules and procedures to be followed in a warehouse

### Textbook(s):

1. Course Material Prepared by LSC
2. JP Saxena, Warehouse Management and Inventory Control-Vikas Publication House Pvt Ltd,

First Edition, 2003. **Additional Reading**

### Reference Book(s):


1. Warehouse Management: Automation and Organisation of Warehouse and Order Picking Systems[WithCDROM], Michael Ten Hompel, Thorsten Schmidt, Springer-verlag, First Edition, 2006.
2. Management Guide to Efficient Money Saving Warehousing, Stephen Frey, Gower, 1982.
3. Kapoor Satish K., and Kansal Purva, 'Basics of Distribution Management: A Logistical Approach', Prentice HALL of India

### Journal(s):

1. Journal of Purchasing and Materials Management
2. Journal of Operations Management
3. International Journal of Production and Operations Management
4. International Journal of Production Economics
5. International Journal of Production Research

	Programme Objectives												PSOs		
	(POs)														
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
CO1	3	1	3	2	1	2									
CO2	3	2	3	0	2	3									
CO3	2	3	3	0	0	0									
CO4	2	1	3	2	0	2									
CO5	3	2	3	0	0	0									

1-Low, 2- Medium and 3- High Correlation

	OPTS1071	<b>Freight Forwarding (Oceani and Cargo)</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>J</b>	<b>C</b>
			3					3
	<b>Course owner</b>	Department of Operations	Syllabus version				1.0	
	<b>Course Pre-requisite(s)</b>	NIL	Contact hours				45	
	<b>Course Co-requisite(s)</b>	NIL	Date Approved					
	<b>Alternate Exposure</b>							

Freight forwarding entails the logistical arrangement of intermodal transport of commodities across international borders, on behalf of shippers. Duties include freight rate negotiating, container tracking, strategizing, and much more. Therefore, this course is designed to:

- Understanding and developing competencies of students to become freight forwarding professionals
- Know the role of freight forwarding agent, their responsibilities and orient the students on the cargo handling of both ocean and air in the real-life situation

### Course Objectives

1. Understand the concept of freight forwarding
2. Identify the roles and responsibilities of freight forwarding agent
3. Apply the inventory and warehousing management concepts for decision-making
4. Analyze the various services to identify areas for improvement
5. Evaluate strategies for improvement in transportation and movement contexts

### UNIT - I Introduction to EXIM

**No of Hours: 9**

Freight forwarding and custom clearance – types of custom clearances – Importance of custom clearance – certificate of origin, ICEGATE and insurance – custom Act – Regulations per training to custom clearance – different modes of freight forwarding – domestic and international freight forwarding networks–process of freight forwarding

#### Learning Outcomes:

After completion of this unit, the student will be able to

- Understand the process of import and export L2
- Explain the various terms related to EXIM management L2
- Appreciate the dimensions that make up the EXIM management L2
- Analyze the need and importance of freight forwarding agent in supply chain process L4
- Evaluate the crucial role of EXIM management in organizational success L5

**Pedagogy tools:** Blended learning, case study, video lectures, self-reading

### UNIT - II Multi-modal transportation

**No of Hours: 9**

Vendor management - bulk load handling - brief on trans-shipment - DG handling - customer acquisition and management - Customs clearance procedure - Documents and its importance - Stages of Documentations process and procedures - Documentation types and filing processes - Details of documents as per the format approved by the Customs - The requirement of documents for pre-shipment and requirement of documents for Import - DO's and DON'T's while handling different documents during Custom Clearance.

**Learning Outcomes:**

After completion of this unit, the student will be able to

- Understand the concept of multi-modal transportation L2
- Explain the procedures of custom clearance L2
- Evaluate the advantages of vendor management L5
- Analyze various stages of documentation process and procedure L4
- Analyze the do and don'ts for handling different documents during custom clearance L4

**Pedagogy tools:** Blended learning, case study, video lectures, self-reading

**UNIT - III Operation Procedures of Freight Forwarding****No of Hours: 9**

The procedures for Pre-Operating Checks and Operational checks to be performed for every shipment / consignment - List of basic handling of errors and the Operational errors that occur in common - Procedure for checking of shipping bill, Airway bill based on invoice and packing list received from department for Freight Forwarding. Regulations (EXIM / IATA / Countries) / COM based on permutations and combinations of weight vs volume

**Learning Outcomes:**

After completion of this unit, the student will be able to

- Analyze the importance freight forwarding agent L4
- Understand the concept of operation procedures of freight forwarding L2
- Evaluate various operational errors that occur in common L5
- Understand the procedure for checking shipping bill, airway bill, etc. on invoice and packing list received from department for Freight Forwarding L2
- Analyze the importance of integration of activity centres L4

**Pedagogy tools:** Blended learning, case study, video lectures, self-reading

**UNIT - IV Cargo handling****No of Hours: 9**

INCO terms and terminologies used in Cargoes-Different, Types of Cargoes for transportation. Full Export and Import value of the cargo – Importer and exporter Code (IEC), The registered PAN based Business Identification Number received from the Directorate General of Foreign Trade - Different type of Cargo, their quantity and value - Packaging requirement for the cargo during shipment from the shipper - Inspection procedure for the cargo while unloading - DO's and DON'T's while handling different cargo - Basic Regulation pertaining to Cargo movement by Air, Sea, and Land. Climatic conditions of different routes in different seasons.

**Learning Outcomes:**

After completion of this unit, the student will be able to

- Understand concept and importance of cargo handling L2
- Apply various strategies of cargo handling L3
- Explain the INCO terms L2
- Understand various types of cargo which are used in the shipment process L2
- Analyze the basic regulation of cargo movement by various modes L4

**Pedagogy tools:** Blended learning, case study, video lectures, self-reading

**UNIT - V Freight forwarding documentation****No of Hours: 9**

Documentation of Freight Forwarding process as per customer time lines and requirements - Carting, unloading, Stacking, Loading; and Stuffing- Procedure for dealing with loss or damage to goods- Different

P.G. A and their roles. Technical knowledge on Containers; pallets; Palletisation; Fumigation -The general reporting processes and time frames - Different airline / shipping line available for different routes - Letters of Credit and payment Terms. Etc. - Movement policy - Details of the transport available in Different routes - Organization fees, charges structure and Organizational procedures - computer and its application in internal systems of documentation

**Learning Outcomes:**

After completion of this unit, the student will be able to

- Understand the documentation process for freight forwarding L2
- Evaluate letter of credit and payment terms L5
- Explain the process for carting, unloading, stacking, loading; and stuffing L2
- Evaluate the cost involved in the transportation process. L5
- Analyze details of the transport available in different routes L4

**Pedagogy tools:** Blended learning, case study, video lectures, self-reading

**Course Outcomes:**

1. The Process of Freight Forwarding Process.
2. Concept of Surface Transportation.
3. Operation process of Freight Forwarding.
4. Significance of Cargo Handling.
5. Analysis of Freight Forwarding Documentation.

**Textbook(s):**

1. JP Saxena, Warehouse Management and Inventory Control-Vikas Publication House Pvt Ltd, First Edition, 2003.

**Additional Reading**

**Reference Book(s):**

1. Warehouse Management : Automation and Organisation of Warehouse and Order Picking Systems[With CD ROM], Michael Ten Hompel, Thorsten Schmidt, Springer Verlag, First Edition,2006.
2. Management Guide to Efficient Money Saving Warehousing, Stephen Frey, Gower, 1982.
3. Kapoor Satish K., and Kansal Purva, 'Basics of Distribution Management : A Logistical Approach', Prentice HALL of India

**Journal(s):**

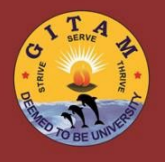
1. International Journal of Export Marketing

**Website(s)**

1. <https://ciltinternational.org/>

	Programme Objectives (POs)												PSOs		
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
CO1	3	0	0	0	0	0									
CO2	3	2	2	0	2	3									
CO3	0	3	0	3	0	0									
CO4	3	0	0	3	0	2									
CO5	0	0	3	0	3	0									

1-Low, 2- Medium and 3- High Correlation

	<b>OPTS1081</b>	<b>Forecasting and Inventory Management</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>J</b>	<b>C</b>
			3					3
	<b>Course owner</b>	Department of Operations	Syllabus version				1.0	
	<b>Course Pre-requisite(s)</b>	NIL	Contact hours				45	
	<b>Course Co-requisite(s)</b>	NIL	Date Approved					
	<b>Alternate Exposure</b>							

**Forecasting and inventory management are two components of demand management.** Forecasting is needed to make decisions about resource allocation. Accurate forecasts drive better resource allocation and, as a result, help to improve financial performance by decreasing the amount of inventory that a company must carry. Along with forecasting, inventory management is a comprehensive and essential process that influences the company's financial situation and the whole business. The challenge of inventory management is to recommend the appropriate inventory level to be held for each item stocked by the organization and the size and frequency of inventory replenishments. This course provides various concepts and techniques of forecasting and inventory management that would benefit contemporary and evolving futuristic organizations for their stability and prosperity.

### Course Objectives

1. To understand the basics of demand forecasting and explore different forecasting models
2. To demonstrate the concept of sales and operations planning (S&OP) and collaborative planning, forecasting and replenishment (CPFR)
3. To understand the basic concepts of inventory management
4. To describe the importance of codification and classification
5. To apply various inventory models for determining order quantities

### UNIT - I Forecasting

**No of Hours: 9**

Forecasting: meaning–need for forecasts–types of forecasts–time frame–Demand Forecasting- Types of Demand Forecasting–Survey methods and statistical methods–importance of demand forecasting– Demand planning v/s forecasting–Sources of demand–Supply chain dynamics–Key roles and responsibilities

### Learning Outcomes:

After completion of this unit, the student will be able to

- Explain the need and importance of forecasting L2
- Explain the time frame of demand forecasting L2
- Differentiate between survey methods and statistical methods L4
- Compare demand planning v/s forecasting L4
- Identify the key roles and responsibilities of supply chain dynamics L2

**Pedagogy tools:** Blended learning, case study, video lectures, self-reading

### UNIT - II Sales and Operations Planning

**No of Hours:9**

Sales and Operations Planning- S&OP goals and objectives-- S&OP best practices-S&OP meeting activity- Collaborative Planning-Types of collaboration-Collaborative Forecasting-Collaborative



planning, forecasting and replenishment-Ingredients of successful CPFR- Regression analysis and cyclic decomposition techniques. Short-term forecasting techniques-Technology Forecasting– Methodologies: -Trend Analysis, Analogy, Delphi, Soft System Methodology, Mathematical Models, Simulation, System Dynamic-Role of Technology Information Forecasting and Assessment Council (TIFAC).

**Learning Outcomes:**

After completion of this unit, the student will be able to

- Explain the goals and objectives of S&OP L2
- Describe the best practices of S&OP L2
- Identify the ingredients of successful CPFR L2
- Analyse the regression and cyclic decomposition techniques L4
- Apply various short term forecasting techniques L3

**Pedagogy tools:** Blended learning, case study, video lectures, self-reading

**UNIT - III Inventory**

**No of Hours: 9**

Inventory: Purpose of Inventory-Goods-Types of Goods-Finished Goods Inventories-General Management of Inventory, Stocks-Types of Stocks, Tracking the Paper Life-Work-in-Process Inventories-Finished Goods & Spare Parts Inventories- Multi-Echelon Inventory Systems- Spare Parts Inventories- Use of Computers in Inventory Management Evaluation of Performance of Materials Function-Criteria and methodology of evaluation- Forecasting model run-Ongoing improvement

**Learning Outcomes:**

After completion of this unit, the student will be able to

- Understand the types and uses of inventories L2
- Differentiate between finished goods and spare parts inventories L4
- Explain multi-echelon inventory systems L2
- Demonstrate the use of computers in inventory management L2
- Evaluate the performance of materials function L5

**Pedagogy tools:** Blended learning, case study, video lectures, self-reading

**UNIT - IV Codification**

**No of Hours: 9**

Codification– Classification– Methodology– Requirement of codes–Coding Structure and Design– Advantages- International Codification– Cost and Consequences– Right Quantity–Economic Ordering Quantity–Derivations of EOQ-Costs associated with Inventories- DuPont model- Turnover & Modeling in logistics

**Learning Outcomes:**

After completion of this unit, the student will be able to

- Explain the importance of codification and classification L2
- Describe the common methods for codification L2
- Implement economic order quantity (EOQ) model L3
- Understand the relevant costs associated with inventory L2
- Analyse the DuPont model for ROE L4

**Pedagogy tools:** Blended learning, case study, video lectures, self-reading

**UNIT - V Influence of production policy on inventory levels**

**No of Hours: 9**

Influence of production policy on inventory levels–inventories and customer service level–steps to improve inventory management– optimum inventory to improve profit performance– inventory management under condition for substantial EOQ)– inventory management uncertainty (fixed order

quantity model) - Calculation of safety stocks-Importance of role of inventory- Inventory Management Systems-execution-Ratio Analysis on Inventory, Profit Margin.

**Learning Outcomes:**

After completion of this unit, the student will be able to

- Explain the influence of production policy on inventory levels L2
- Evaluate when the order point is reached L5
- Determine service levels and safety stock L4
- Apply fixed order quantity model L3
- Perform ratio analysis on inventory L4

**Pedagogy tools:** Blended learning, case study, video lectures, self-reading

**Course Outcomes:**

1. Explore different forecasting models.
2. Explain the sales and Operation Planning.
3. Evaluate the inventory management.
4. Explain the concept of codification and classification.
5. Perform the ratio analysis on inventory.

**Textbook(s):**

1. Course Material Prepared by LSC
2. Sunil Chopra and Peter Meindl, Supply Chain Management Pearson Education Asia, 3rd edition, 2007

**Reference Book(s):**


1. Operations Research – Concepts, Problems & Solutions- Kapoor V.K.-Sultan Chand & Sons/2017-978-81-8054-854-3 (TC-532)
2. Vijay Kumar Khurana, 2007, Management of Technology and Innovation, An eBooks India, Chennai
3. Simchi-Levi, David, “Designing and Managing Supply Chain”, Tata McGraw Hill, 3rd Edition, 2007.
4. David EMulcahy, “Warehouse Distribution and Operations Handbook, McGraw Hill, 6<sup>th</sup> Edition, 1993.

**Journal(s):**

- Journal of Purchasing and Materials Management
- Journal of Operations Management
- International Journal of Production and Operations Management
- International Journal of Production Economics
- International Journal of Production Research

	Programme Objectives (POs)												PSOs		
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
CO1	1	1	1	0	3	3									
CO2	2	1	1	0	2	3									
CO3	1	1	2	0	2	0									
CO4	1	0	2	0	2	0									
CO5	2	1	3	0	3	0									

1-Low, 2- Medium and 3- High Correlation

	<b>OPTS1091</b>	<b>Surface Transportation</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>J</b>	<b>C</b>	
			3					3	
	<b>Course owner</b>	Department of Operations	<b>Syllabus version</b>				1.0		
	<b>Course Pre-requisite(s)</b>	NIL	<b>Contact hours</b>				45		
	<b>Course Co-requisite(s)</b>	NIL	<b>Date Approved</b>						
	<b>Alternate Exposure</b>								

Surface transportation means the movement of people by road, train or ship. Surface transportation means any conveyance of people, goods, or commodities using one or more surface transportation modes. Surface Shipping is a logistics service wherein the shipments are sent through land. It is less expensive but slower than air shipping. Surface shipping is especially preferred for large or heavy deliveries or for sending dangerous goods which are prohibited through the air.

“Surface Transportation & Courier, Express, and Parcel” is concerned with the functions that support in efficient delivery, tracking of material, making rationale decision in case of delays, identifying efficient route for delivery and following the guidelines of transportation. The primary objective is to provide low cost and efficient transportation means to the customers.

Therefore, this course is designed to:

- Help Students to understand basics of surface transportation including road and rail transport
- Develop competencies and knowledge of students to become transportation professionals
- Orient students in the field of Logistics

### Course Objectives

1. Understand the basics of modes and role of transportation.
2. Identify the reasons for delay during transit and corrective actions.
3. Apply the knowledge of truck loading and load capacity.
4. Analyze emerging trends and pricing strategy in transportation sector.
5. Evaluate strategies for vendor coordination for return truck loads.

### UNIT - I Introduction to Surface Transportation

**No of Hours: 9**

Introduction to surface transportation - Need for transportations - Role of transportations in logistics - Importance of transportations- Types of transportations metrics - functions of transportations - inter modal transport -various land transport carriers and their Load capacities - pricing and availability- verification of carriers and drivers - transit rules - traffic rules inside warehouse premises - Docking procedure and safety steps. Procedure to Confirm vehicle for loading of goods.

### Learning Outcomes:

After completion of this unit, the student will be able to

- |  |    |
|--|----|
| • Explain the need and role of transportation.                           | L2 |
| • Appreciate the load capacities of various transport carriers.          | L2 |
| • Analyse the carriers, drivers and transit rules.                       | L4 |
| • Evaluate the docking procedure.  | L5 |
| • Apply the strategies for selecting the vehicle for transporting goods. | L3 |

**Pedagogy tools:** Blended learning, case study, video lectures, self-reading

## **UNIT - II Tracking of Transport**

**No of Hours: 9**

Tracking of transport:

Transportation Optimisation - Documentation for transportation – GST – E Waybill Filing- Transportation Telematics - Vehicle tracking system - Communication with vehicle driver or transport company - Probable reasons for delay or any issues during transit - Solutions for corrective actions (such as talking to local authorities or break down service assistance) - Road signs, List good practices in driving. Learning Outcomes:

After completion of this unit, the student will be able to

- Understand the modes of tracking the goods. L2
- Explain the documentation process for transporting goods. L2
- Evaluate the reasons for delay in shipment. L5
- Analyse the transportation telemetric. L4
- Analyse the good practices in transportation. L4

**Pedagogy tools:** Blended learning, case study, video lectures, self-reading

## **UNIT - III Types of Loading**

**No of Hours: 9**

Types of Trucks and Load capacity / Organisation structure in a Transport organization / Incident management systems & Processes - Explain types of temperature - controlled carriers - Discuss hazmat goods rules -Importance of safety data sheet and labels - Procedure for Consolidation of consignments for optimal loads, to verify count of material - Reporting discrepancies such as pilferages, loss or damage of goods in transit - Checking insurance and claims - steps to close deliveries and Coordinate with loading / unloading supervisor.

**Learning Outcomes:**

After completion of this unit, the student will be able to

- Analyse the full truck, half truck and other load strategies. L4
- Understand the importance of incident management system. L2
- Evaluate the importance of safety data sheet and labels. L5
- Understand the claim settlement process. L2
- Apply the concept of consignment consolidation for optimal loads. L3

**Pedagogy tools:** Blended learning, case study, video lectures, self-reading

## **UNIT - IV Processes for Efficient Deliveries**

**No of Hours: 9**

Benefits of efficient transportation systems / Study on emerging trend in transportation sector/ pricing in transportation sector / govt regulations on transportation in India. Safety procedures during transit and emergency response steps-keeping track of news on traffic and communicate with drivers to identify delays and suggest re - routing - Explain tracking systems-Importance of consignment number - GPS systems and tracking devices - Procedure for downloading and reading tracking data from devices.

**Learning Outcomes:**

After completion of this unit, the student will be able to

- Understand the role of efficient transportation system. L2
- Apply the pricing strategies in transportation. L3
- Evaluate the delays and need of re-routing. L5
- Understand the importance of consignment number. L2
- Apply the tracking data for calculating expected date of delivery. L3

**Pedagogy tools:** Blended learning, case study, video lectures, self-reading

**UNIT - V Measuring the Suitability of Transport Modes****No of Hours: 9**

Customer Management / Vendor coordination for return truck loads / DG Handling – features and facilities offered by railways factors influencing growth in rail logistics – suitability for different cargo and distance ranges segments–innovative schemes-facilities to popularize rail logistics in India

**Learning Outcomes:**

After completion of this unit, the student will be able to

- Understand the need for material handling and storage systems. L2
- Apply the operations research techniques. L3
  
- Explain the material handling equipment's. L2
- Understand the principles of material handling system. L2
- Analyse the safety issues in material management. L4

**Pedagogy tools:** Blended learning, case study, video lectures, self-reading

**Course Outcomes:**

1. Explain the need and role of transportation.
2. Evaluate the reasons for delay in shipment.
3. Explain the types of loading.
4. Determine the role of transportation system.
5. Apply the operations techniques.

**Textbook(s):**

1. Martin Christopher, Logistics and Supply chain management.
2. JP Saxena, Warehouse Management and Inventory Control-Vikas Publication House Pvt Ltd, First Edition, 2003.

**Reference Book(s):**

1. Warehouse Management : Automation and Organisation of Warehouse and Order Picking Systems [With CD ROM], Michael Ten Hompel, Thorsten Schmidt, Springer - verlag, First Edition, 2006.
2. Management Guide to Efficient Money Saving Warehousing, Stephen Frey, Gower, 1982.
3. Kapoor Satish K., and Kansal Purva, 'Basics of Distribution Management : A Logistical Approach, Prentice HALL of India

**Journal(s):**


1. International Journal of Logistics Management, Emerald publisher.
2. International Journal of Logistics Research and Applications, Taylor and Francis.

**Website(s)**

2. [www.poms.org](http://www.poms.org)

	Programme Objectives (POs)												PSOs		
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3
CO1	3	0	0	0	0	0	0	0							
CO2	2	3	2	1	0	0	0	0							
CO3	0	1	0	3	3	0	0	0							
CO4	0	0	0	2	3	1	0	0							
CO5	0	1	3	2	0	0	0	0							

1-Low, 2- Medium and 3- High Correlation

	MKTG2001	<b>Marketing Theory and Practice</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>J</b>	<b>C</b>
			3					3
	<b>Course owner</b>	Department of Marketing	Syllabus version				1.0	
	<b>Course Pre-requisite(s)</b>	NIL	Contact hours				45	
	Course Co-requisite(s)	NIL	Date Approved					
	Alternate Exposure							

Marketing as a subject primarily caters to the consumerist instincts of an individual. The markets are driven by consumer behaviour, which has evolved and is much more demanding these days. Consumer satisfaction takes precedence for a business to be successful. This calls for managers to adopt creative and unique marketing strategies to gain a competitive advantage. Marketing Management equips managers with the required theoretical knowledge and practical skills to gain insights into the dynamic nature of the markets and then devise ways and means to manage them effectively.

#### **COURSE OBJECTIVES:**

1. To emphasize the importance of the marketing function in an organization.
2. To understand the core concepts right from deciding the segment till customer satisfaction
3. To impart knowledge with respect to latest trends in Marketing, Marketing Mix, Social responsibility and ethical issues in Marketing
4. Global Marketing approach

<b>Unit</b>	<b>Topics</b>	<b>Focus</b>
I	Meaning and concepts of Marketing, Sales Concept, Marketing concept, Social Marketing concepts, Societal Marketing concept, Marketing Mix, 4Ps of Marketing, Marketing Environment in India.	Conceptual
II	<ol style="list-style-type: none"> <li>1. Consumer Behavior—Factors influencing buying behavior—consumer buying decision process—Buying motives—influences.</li> <li>2. Market segmentation—criteria—Bases of segmentation—benefits. Marketing research process: Defining research problem, research objective research techniques</li> </ol>	Conceptual
III	1. Product Planning & Development—Definition, Classification of Product, Stages of Product Life Cycle (PLC) and Factors affecting PLC.—Product Planning—Genesis and Importance of Product Planning in Marketing. - Product Development :Meaning, Principle of Product Development, Stages of New Product Development and Factors affecting development of New Products.	Analytical

	2. Pricing-Meaning, Objectives, Price Policies and Strategies and Methods of fixing prices.	
IV	<ol style="list-style-type: none"> <li>1. Distribution Channel- meaning, Types of Distribution channel -Direct &amp; Indirect. Role of intermediaries and distribution channel management. Channel Management Decisions, Returns Management and Reverse Logistics.</li> <li>2. Promotion–elements of promotion mix- Advertising, sales promotion, personal selling and sales management. Public and customer relations, direct and online marketing, multi level marketing - the new marketing model.</li> </ol>	Analytical
V	<ol style="list-style-type: none"> <li>1. An overview. Advertising, sales promotion, personal selling and sales management. Public and customer relations, direct and online marketing, multilevel marketing - the new marketing model.</li> <li>2. Marketing and society -Social responsibility and ethical issues in marketing. Global marketing program. The old and new economies. Demand side marketing. Legal issues in marketing. marketing skills, Brand marketing skills, CRM. Marketing in Indian Context. Marketing in 21st Century</li> </ol>	Analytical


**COURSE OUTCOMES:**

1. Discuss the importance of macro and microenvironment in molding the company's marketing function.
2. Differentiate the consumer and institutional buyer behavior.
3. Define the target segments for the products.
4. Justify the importance of products, branding and new product development.
5. Understand the importance of Channel of distribution.

**Text & Reference Books:**

1. N. Rajan Nair, Marketing Management, Sultan Chand & Sons.
2. Ramasamy V.S. and Namakumary S, Handbook of Marketing Management, Macmillan.
3. Rajagopal, Marketing Management, Vikas Publishing House Pvt., Ltd.,
4. S. Jayachandran, Marketing Management, Excel Books.
5. Rajan Saxena, Marketing Management, TMH.



	OPTS2051	<b>MIS for Logistics</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>J</b>	<b>C</b>	
			3					3	
	<b>Course owner</b>	Department of Operations	Syllabus version				1.0		
	<b>Course Pre-requisite(s)</b>	NIL	Contact hours				45		
	<b>Course Co-requisite(s)</b>	NIL	Date Approved						
	Alternate Exposure								

The logistics management information system (MIS) is the system of collecting, processing, tracking, reporting and analysing data on product stock levels and use. This critical system communicates supply status and need at all levels of the programme so that appropriate decisions can be made to avoid stock-outs and to ensure optimal quantities of supplies. The MIS also includes the records that help to maintain quality assurance throughout the system. The MIS is shown in the centre of the cycle because no part of the logistics system can work well without accurate and timely information.

#### **COURSE OBJECTIVES:**

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

<b>Unit</b>	<b>Topics</b>	<b>Focus</b>
I	Introduction-IT and management opportunities and challenges-Strategic planning and models - Information management & IT Architecture – IT Architecture & infrastructure, cloud computing and services, Virtualization and Virtual Machines.	Conceptual
II	Database Technology - Data warehouse - Data Mart Technologies – Data and Text mining - Business Intelligence & Analytics, Digital and physical document management. Networks, collaboration & sustainability: Business IT networks & components, communication technologies–Sustainability and Ethical issues - Internal control - Business Control and Auditing.	Conceptual
III	Dissemination of technology information-and strategic planning–Technology choice and evaluation methods – Analysis is of alternative technologies–Implementing technology programmes-Intellectual Capital -An introduction to Intellectual Property Right-Patent-Copyrights-Trademarks and other issues.	Conceptual
IV	Functional Area & Compliance systems: Management levels and functional systems Enterprise System sand applications: Enterprise systems, Enterprise Resource Planning(ERP), Supply Chain Management(SCM), Collaborative Planning, Forecasting, and Replenishment system(CPFR), Customer Relationship Management (CRM). Performance Management: Data visualization, Mashups and Mobile intelligence, Fleet Management Information System.	Conceptual
V	Business Process and Project Management: - Architecture & IT design, System development, Software & Applications for management (Business of ware tools), Support system. ERP modules-sales and Marketing, Accounting, Finance, Materials and Production management etc.	Conceptual

**COURSE OUTCOMES:**

- Students will be able to apply the Basic knowledge of MIS for Logistics in the real-life situation.
- This subject will enable them to enhance their ability and professional skills in Logistics

**Text & Reference Books:**

1. Course Material Prepared by LSC
2. KENNETH C.L., JANE P.L., & RAJANISHDASS (2001) Management Information System - Managing the Digital Firm. Pearson Education: New Delhi.
3. RAVIK & ANDREWB. W. Frontiers of Electronic Commerce. Pearson Education: New Delhi.
4. KENNETHC.L., &JANEP, L.(2001)Essentials of MIS. Prentice Hall India :New Delhi.
5. SADAGOPAN,S. (2003) Management Information System. Prentice Hall India: New Delhi.
6. EFF,O.Z.(2003)Management Information Systems. Vikas Publishing House Pvt. Ltd.: New Delhi.

	OPTS2061	<b>International Logistics Management</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>J</b>	<b>C</b>	
			3					3	
	<b>Course owner</b>	Department of Operations	<b>Syllabus version</b>				1.0		
	<b>Course Pre-requisite(s)</b>	NIL	<b>Contact hours</b>				45		
	Course Co-requisite(s)	NIL	<b>Date Approved</b>						
Alternate Exposure									

International logistics is the process of planning and managing the flow of goods and products in your company's supply chain from acquisition to customer purchase, where part of the process involves crossing at least one international border.

**COURSE OBJECTIVES:**

- To develop competencies and knowledge of students to become International logistics management professionals
- To orient students in the field of Logistics
- To help Students to understand international Logistics management

Unit	Topics	Focus
I	International Logistics: Definition, Evolution, Concept, Components, Importance, Objectives; Logistic Subsectors; The work of Logistics; Integrated Logistics; Barriers to Internal Integration.	Conceptual
II	Customer Focused Marketing; International Marketing: Introduction, Definition, Basis for International Trade, Process, Importance; International Marketing Channel: Role of Clearing Agent, Various Modes of Transport, Choice and Issues for Each Mode, Transport Cost etc.	Conceptual
III	Transportation Functionality and Principles; Multimodal Transport: Modal Characteristics; Modal Comparisons; Legal Classifications; International Air Transport; Air Cargo Tariff Structure; Freight: Definition, Rate; Freight Structure and Practice	Conceptual
IV	<b>Containerization:</b> Genesis, Concept, Classification, Benefits and Constraints; Inland Container Depot (ICD) : Roles and Functions, CFS, Export Clearance at ICD; CONCOR; ICD under CONCOR; Chartering: Kinds of Charter, Charter Party, and Arbitration.	Conceptual
V	International commercial documents - International contracts, terms of payments, international insurance, packaging for export, custom clearance and infrastructure: transportation, communication and utilities-Brokerage	Conceptual

**COURSE OUTCOMES:**

- Students will be able to apply the Basic knowledge of International Logistics management in their all life situation
- This subject will enable them to enhance their ability and professional skills in Logistics

**Text & Reference Books:**

2. Course Material Prepared by LSC
3. International Marketing by Gupta and Varshing, Publisher: Sultan Chand and Sons
4. International logistics by Pierre David, Publisher: Biztantra
5. Logistic Management and World Sea Borne Trade by Multiah Krishnaveni, Publisher: Himalaya Publication
6. Logistic and Supply Chain Management by Donald J. Bowerson, Publisher: Prentice Hall of India

	OPTS2071	<b>Retail Logistics &amp; E-Commerce</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>J</b>	<b>S</b>	<b>C</b>
			3					3
	<b>Course owner</b>	Department of Operations	Syllabus version					1.0
	<b>Course Pre-requisite(s)</b>	NIL	Contact hours					45
	<b>Course Co-requisite(s)</b>	NIL	Date Approved					
	<b>Alternate Exposure</b>							

Unlike traditional retail supply chains, ecommerce retail logistics involves the control and planning of processes that enable the processing of transaction. E-Commerce logistics providers facilitate transactions and ensure that the proper procedures are followed in case of unexpected development and situation.

#### **COURSE OBJECTIVES:**

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

<b>Unit</b>	<b>Topics</b>	<b>Focus</b>
I	<b>Concept and Scope:</b> Concepts of Retail Logistics and supply chain - Importance of Logistics in these days global Sourcing, Production and consumption - Dimension of Logistics: Macro and Micro aspects – Supply chain contours: Back ward and forward linkages-Supply chain efficiency- Logistics as a competitive edge driver-Peculiarities and diversity of needs of Logistics for Retailing.	Conceptual
II	Logistics and Retail Marketing: Logistics as a Support function of Order Fulfilment, Assembling & Labelling from Multi-storage points and Delivery- Logistics as an interface of Market forecasting, Stock level management, invoice or sales documentation, picking products, consolidation, transport-packaging, packing, marking, preparing out bound documentation and shipping out by loading into containers –customer facilitation tracking out - bound shipments.	Conceptual
III	E-Commerce: introduction to E-commerce logistics including delivery and pickup models and the overall logistic setup – Order Processing –Activities associated with order processing like identifying order request from MIS, creating customer account for new customers, identifying the order requirements and placing a processing request in MIS, notifying customers through system, updating the delivery requirements, checking with stock, coordinating with vendor, etc. - Types of order processing -Roles and responsibilities associated with order processing – Procedures for generating plans and schedules through MIS	Analytical


IV	<p><b>Reverse Logistics:</b> Basic of reverse logistics - The concept of reverse logistics. The key activities involved in terms of identifying daily pickups, scheduling pickup for the day, coordinating with carriers, route map optimization, collecting pick up and feedback- Types of reverse logistics</p> <p>– Return from customer, return by carrier, return of damaged product, etc.-</p> <p>Roles and responsibilities associated with reverse logistics-Global best Practice and statistics associated with reverse logistics</p>	Analytical
V	<p>Types of Ecommerce-B2B-B2C and intra business. Retail Ecommerce</p> <p>–Retailing through internet, Direct Online Sales model and its types</p> <p>-Business Models for ecommerce-meaning definition importance. E-business models based on the relationships of transaction types-manufacture model, advertising model, value chain model, brokerage Model Marketing on the web- marketing strategies, creating web presence, advertising, customer service andsupport, web branding strategies, web selling models.</p> <p>Electronic Payment system Electronic CRM Applications. E - Security - Understanding of Key terms of E - Commerce: Electronic Commerce &amp;Banking - Electronic Payment Systems, Electronic Payment Technology, On-line credit card, E-Commerce Security. - Electronic Data Interchange(EDI); EDI definition; Overview of advantages and disadvantages; EDI application in business development; EDI technology.</p>	Analytical

**COURSEOUTCOMES:**

- Students will be able to apply the Basic knowledge of Retail logistics and E-commerce in the real-life situation.
- This subject will enable them to enhance their ability and professional skills in Logistics.

**Text & Reference Books:**

- 1.Course Material Prepared by LSC
- 2.Mr. Gibson G, “Retail Management: Functional Principles & Practics”, Jaico Publishing house, 6<sup>th</sup> Edition, 2003.
- 3.Ray, Supply Chain Management For Retailing, TMH, 2010.
- 4.James B. Ayers, Retail Supply Chain Management, Auerbach Publications,2007.

	OPTS2081	<b>Liner Logistics</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>J</b>	<b>S</b>	<b>C</b>	
			3					3	
	<b>Course owner</b>	Department of Operations	<b>Syllabus version</b>				1.0		
	<b>Course Pre-requisite(s)</b>	NIL	<b>Contact hours</b>				45		
	<b>Course Co-requisite(s)</b>	NIL	<b>Date Approved</b>						
	<b>Alternate Exposure</b>								

Liner shipping is the process of transporting goods and cargo from one destination to another by large ocean ships that move through regular routes on fixed schedules. Most of these liner services provide weekly sailing from the ports of call.

#### **COURSE OBJECTIVES:**

- To develop competencies and knowledge of students to Liner logistics professionals
- To orient students in the field of Logistics
- To help Students to understand Liner logistics

<b>Unit</b>	<b>Topics</b>	<b>Focus</b>
I	Definitions of liner trades; tramp trades; containerization- Unitization -containerization, liner operations, port organization–Vessel loading and discharging, liner trade routes, The major ports, liner service options- Liner trade – ship types–Tonnages; basic ship layout, types of container ships, Ro-Robarge carrying vessels, There frigerated cargo ship conventional (Break bulk) vessels future vessel developments, economy of scale, shipboard handling equipment.	Conceptual
II	Cargoes & cargo equipment–Dangerous goods IMO special goods, cargo handling so their methods of lifting cargo port handling equipment, port terminals; port and terminal management; the role of ships officers-agent. Liner Shipping operations - Management and policy, ship management and operations, independent ship management, insurance, trade of commercial department, accounting, budgeting, freight collection and port disbursements agency duties.	Conceptual
III	Containerization unitization and inter - modalism - Growth in world trade unitization; container dimensions, types of container other container expressions container inventory, owning, leasing meeting the demand for containers tracking the container fleet, container control, FCLSLCLS & ICDS, legal & insurance implications in the container trade.	Conceptual
IV	The Bill of Lading and other Documentation - The Bill of Lading UK bill of lading Act 1855 and UK carriage of goods by sea Act 1992, The use of Bill of Lading in liner trades, Bill of Lading documentary credits, Bill of Lading clauses The printed clauses – The evidence of the contract, other forms of Bill of Lading other liner documents, Intl conventions relating to Bill of Lading, paperless trading	Conceptual

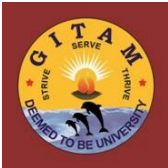
V	<p>The Exchange of goods transfer-Transfer of funds from country to country, methods of payments in International trade who are the merchants, International contracts of sale INCO terms; Legal aspects of the liner trades</p> <p>- The carrier insurance the carrier's liability for the cargo the liabilities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

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

**Text & Reference Books:**

1. Course Material Prepared by LSC
2. Ship Operation Management, Fujita, N.H. Publisher,1974.
3. Ship Operation Management, Bertram's Publication, 2010.
4. Handbook of Ship Calculations, Construction and Operation, Charles H. Hughes, Wexford College Press,2008.
5. Ocean Shipping Elements of Practical Steamship Operation, Robert Edwards Annin, Thomps on Press,2010.

	OPTS2091	<b>Port Terminal Logistics</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>J</b>	<b>C</b>	
			3					3	
	<b>Course owner</b>	Department of Operations	<b>Syllabus version</b>				1.0		
	<b>Course Pre-requisite(s)</b>	NIL	<b>Contact hours</b>				45		
	<b>Course Co-requisite(s)</b>	NIL	<b>Date Approved</b>						
<b>Alternate Exposure</b>									

Terminal is a multifunctional logistics complex providing a full range of services for handling container and general cargo. Terminals and ports can be ocean, sea, river and dry ports. Dry ports are normally located in the industrial zones, which are connected with the nearest sea/river terminal, and most often by a single IT-system. A terminal provides handling of cargoes of clients of all sea terminals as well as container freight stations (CFS) and any forwarding companies.

#### **COURSE OBJECTIVES:**

1. To develop competencies and knowledge of students to Port terminals logistics professionals
2. To orient students in the field of Logistics
3. To help Students to understand Port terminals logistics

<b>Unit</b>	<b>Topics</b>	<b>Focus</b>
I	Difference between Major and Minor Ports-Ports in India-Natural Harbors -New Ports to be developed in India-Major Ports of the World - Largest Port in the world-Port Officials and their roles- Role of Ports- Who are Port users	Conceptual
II	Container Terminals - Privatization of Terminals-Reason for Privatization - Major Terminal Operators in India - Terminal Operators of the world -Privatization the need of the hour - Agreement between and existing Port Terminal and the new operator	Conceptual
III	Import Cycle-Export Cycle-Positions and Places in a Terminal- Facilities in Terminal-Container Monitoring and stacking-CFS inside a Terminal - Reasons for Congestion of a terminal-de-congesting the terminal- Window system in a terminal.	Conceptual
IV	Major Port Trust Act - Port as a custodian of the cargo - Transit sheds - Cargo receivers-Wharf sand Berths-Variou berths in a Port-Meaning of Berth Restrictions - Port equipment's and damage- Extra services - Berth reservation schemes	Conceptual
V	Port Tariff - Pilots and their duties-Tugs and its usage - Night navigations - Light Dues - Tariff Authorities of Major Port - Revision of rates - Por Trustees - Safety Procedures - Introduction of ISPS - Damage to Por propertyby ships-Compensation and confiscation of cargo to adjust dues	Conceptual




**COURSE OUTCOMES:**

- Students will be able to apply the Basic knowledge of Port terminals Logistics in the real-life situations
- This subject will enable them to enhance their ability and professional skills in Logistics

**Text & Reference Books:**

- a. Course Material prepared by LSC
- b. Major Port Trust Act –Government of India
- c. Port Industry Statistics, American Association of Port Authorities
- d. AP MOLLOR Guide book on Terminal
- e. DUBAI PORT AUTHORITIES Manual

	OPTS2101	<b>Commercial Geography</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>J</b>	<b>C</b>	
			3					3	
	<b>Course owner</b>	Department of Operations	<b>Syllabus version</b>				1.0		
	<b>Course Pre-requisite(s)</b>	NIL	<b>Contact hours</b>				45		
	<b>Course Co-requisite(s)</b>	NIL	<b>Date Approved</b>						
<b>Alternate Exposure</b>									

Commercial Geography is the relation between Geographic Structure and Commercial Activities. The Commerce depends on the structure of the Geography and related factors such as Land Structure, population, Climate, Temperature, Stability and many other things.

#### **COURSE OBJECTIVES:**

- i. To acquaint the students about dynamic aspects of Commercial Geography.
- ii. To acquaint the students about dynamic nature of Industrial field in India.
- iii. To make the students of commerce aware about the relationship between the geographical factors and economic activities

<b>Topics</b>
<p><b>Unit -I: Introduction to Geography</b>            Definition, nature and scope, relation with other branches. -Meaning of environment, physical or natural environment and cultural or manmade environment, -Commercial activities: Primary, secondary, tertiary, and quaternary activities, -Factors affecting commercial activities of man, Physical or natural factors: Location, climate, physiography.</p> <p><b>Unit -II: Physical Factors</b>            Location of India in the World map, longitudes, latitudes and equator, Size of country including land mass, List of States their capitals, important cities and towns / Union Territories,-India's population size &amp; distribution-India and the world, its neighbors - Exercise: Oxford school atlas Maps – India Political Map, Population Map, Locating states / cities on maps.</p> <p><b>Unit -III: Transportation systems in India</b>            Inland &amp; overseas. Roadways -National Highway including Golden Quadrilateral, E-W corridor, N-S corridor, NH numbers. Railway junctions &amp; connections. Airports international &amp; domestic airport locations. Seaports Industrial belts in India, Industrial Estates, SEZs, Export Processing zones, Textile zones, Leather zones, chemical zones, etc. {Oxford School Atlas provides for following maps with detailing: India – Road &amp; inland waterways (pg. 51) /India – Railways (pg. 52) / India – Air and sea routes (pg. 53) -Exercise: Locating NHs, Junctions, Airports, Seaports on Maps}</p> <p><b>Unit -IV: Introduction to World Time Zone</b>            Time Zones – Greenwich Mean Time-Calculation of time zone – by using longitude-Local Time-Standard Time International Date Line -Exercise: Various exercises can be prepared around time zones including calculation / use of maps, Local time of Flight in origin country to Local time of flight in destination country etc. {Oxford School Atlas provides for following map: World Time Zone (pg. 122)}.</p>

**Unit -V: IATA Airport Codes & World Geography**


Introduction to IATA Airport Codes, its history importance and use in the air transportation business.- Continents of the world and the counties in these continents and regions-Capital of the countries, important and commercial cities in the world,-Currencies of the countries-Important commercial Airports, Travel time for shipments/ cargo to various countries from India and vice versa.-Trade lines to the world from India-Types of trade between the countries- {Oxford Atlas – World Political & Physical Map

**Course outcomes:**

1. Acquiring Knowledge of Physical Geography
2. Ability of Problem Analysis:
3. Knowing the bases of commercial and marketing activities related to the earth.

**Text Books:**

1. Course material from LSC
2. NCERT Class 6 / 9 / 10 Geography
3. Oxford School Atlas – Latest Edition should be used.

	OPTS2111	<b>Logistics Network Design</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>J</b>	<b>C</b>	
			3					3	
	<b>Course owner</b>	Department of Operations	<b>Syllabus version</b>				1.0		
	<b>Course Pre-requisite(s)</b>	NIL	<b>Contact hours</b>				45		
	<b>Course Co-requisite(s)</b>	NIL	<b>Date Approved</b>						
	<b>Alternate Exposure</b>								

Developing a powerful logistics network is a competitive advantage in the current economic context where competitive pressure is rife, the market volatile and globalized and raw materials costs are rising. An optimized logistics network makes for lower costs, a grip on logistics flows and providing excellent customers service.

#### **COURSE OBJECTIVES:**

- To develop competencies and knowledge of students to become Logistics network design professionals
- To orient students in the field of design and configuration of the logistics network.
- To help Students to understand Logistics network design

<b>Unit</b>	<b>Topics</b>	<b>Focus</b>
I	Introduction - Components of Logistics network: Facilities - Plants /Vendors - Ports - Warehouse Retailers/Distribution Centres - Customers – Raw materials and finished products that flow between the facilities. The three models of Network Design: 1. Logistics network design with differentiated delivery lead time 2. Logistics network design with price discount 3. Consolidated logistics network design using consolidation hubs	Conceptual
II	Key issues of Network design: Pick the optimal number, location, and size of warehouses and/or plants-Determining optimal sourcing strategy- Which plant / vendor should produce which product? - Determining Best distribution channels - Which warehouses should service which customers?	Conceptual
III	Data required for Network Design: A listing of all products – Location of customers, stocking points and sources - Demand for each product by customer location -Transportation rates - Warehousing costs – Shipment sizes by product - Orderpatterns by frequency, size, and season, content -Order processing costs - Customer service goals	Analytical
IV	1.The strategic decisions in terms of warehouses when plants and retail locations are fixed; Pick the optimal number - location - size of warehouses - Determining optimal sourcing strategy - Which plant / vendor should produce which product - Determining best distribution channels- Which warehouses should service which retailers-The objective is to design or reconfigure the logistics	Analytical

	<p>network so as to minimize annual system - wide costs, including Production / purchasing costs Inventory carrying costs, and facility costs (handling and fixed costs) Transportation costs.</p> <p>2. Find a minimal- annual- cost configuration of the distribution network that satisfies product demands at specified customer service levels.</p>	
V	<p>1. Data Collection - information on: a) Location of customers, stocking points and sources - location theory - b)A listing of all products - c) Demand for each product by customer location–forecast technique– d) Transportation Cost - Transportation rates by mode— information system, like rating engine - e) Mileage estimation - f) Warehousing costs (handling and fixed) - inventory management g) Service level requirement- probabilistic technique h) Shipment sizes byproduct</p> <p>2. Data Aggregation The impact of aggregate demand - a heuristic to aggregate data.</p> <p>3. Data Validation and Model</p> <p>4. Optimization.</p>	Analytical

#### **COURSE OUTCOMES:**

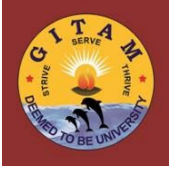
- Students will be able to apply the Basic knowledge of design and configuration of the logistics network in thereal-life situation
- This subject will enable them to enhance their ability and professional skills in design and configuration ofthe logistics network.

#### **Text & Reference Books:**

1. Course Material Prepared by LSC
2. Supply Chain Management: Logistics Network Design by Donglei Du, Faculty of Business Administration, University of New Brunswick, NB Canada Fredericton.
3. Joseph D. Patton, Logistics Technology and Management, Solomon, 1986.
4. Philip T. Frohne, Quantitative Measurements for Logistics, Mc Graw Hill, 2007



OPTS2121	Logistics 4.0	<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>J</b>	<b>C</b>
		3					3
<b>Course owner</b>	Department of Operations	Syllabus version				1.0	
<b>Course Pre-requisite(s)</b>	NIL	Contact hours				45	
<b>Course Co-requisite(s)</b>	NIL	Date Approved					
Alternate Exposure							

	OPTS3021	<b>Introduction to Aviation Industry &amp; Airport</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>J</b>	<b>C</b>	
			3					3	
	<b>Course owner</b>	Department of Operations	Syllabus version				1.0		
	<b>Course Pre-requisite(s)</b>	NIL	Contact hours				45		
	Course Co-requisite(s)	NIL	Date Approved						
Alternate Exposure									

Aviation industry is the business sector that manufactures, maintains, and operates the aircrafts and the airports. When it comes to aviation, there is a broad range of responsibilities within. It comprises activities at the airport as well as in the aircraft. It involves ground duties that are required to perform before the flight takes off, the activities during the flight, and the activities after it lands.

### **COURSE OBJECTIVES:**

- To develop competencies and knowledge of students to become Aviation Professionals
- To help Students to understand Fundamentals of Aviation Industry & Airport Operations

### **Unit I: History of Aviation & Key Organizations in the Aviation Industry**

- a. History of Aviation through the ages-Origins in Greek Mythology-  
The Wright Brothers-
- b. Aviation in the era of World War 1 & 2- Commercial Aircraft Era-  
Modern Jetliners
- c. Key Organizations in the Aviation Industry

1. ICAO- International Civil Aviation Organization, 2. IATA - International Air Transport Association
3. MoCA - Ministry of Civil Aviation, 4. DGCA - Directorate General of Civil Aviation
5. AAI- Airports Authority of India, 6. AAICLAS- Airports Authority of India Cargo Logistics Allied Services
7. AERA- Airport Economic Regulatory Authority 8. BCAS- Bureau of Civil Aviation Security

### **Unit II: Freedoms of the Air & the Airline Business**

- a. Freedoms of the Air- Overview- Nine Freedoms of the Air
- b. Airline Business
  - i Business Models- Legacy, Low Cost, Charter, Regional, Cargo & Hybrid
  - ii Airplane Manufacturers- Primary Manufacturers- Boeing, Airbus and others
  - iii Narrow Body v/s Wide Body- Definition & Features
  - iv The Airline Industry as a Business- Key Functions in the Airline Business
  - v Airline Codeshares & Alliances
    - a. Concept, b. Key Benefits, c. Major Airline Alliances
  - vi Airline Cabin Classes- First, Business, Premium Economy & Economy

### **Unit – III: World Geography & Airline Communication Protocol**

Traffic Conference Areas, Time Zones, Codes- Country, City, Carrier, Currency, Aircraft Registration, Airline Phonetics

### **Unit – IV: Airport Operations**

- a. Key Stakeholders, Airport Types, Airport Revenue Sources, Airport Functional Layout- Landside, Governmental Agencies at Airport, Baggage Handling, Airside Operations
- b. Airport as an Operational System- Infrastructure & Facilities, Airport Operations Control Centre (AOCC), Airport Collaborative Decision Making (ACDM), Key Information Technology Systems at Airports  
Concessionaire Activities at Airports (terminology restricted to Indian scenario)

### **Unit – V: Non-Aero Activities- Retail, Food & Beverage, Real Estate, Car Rentals Car Parking, Currency & Banking, Advertising**

- b. Maintenance Repair & Overhaul (MRO)- Types of MRO Models
- c. Ground Handling
  - i Concept, ii Self-Handling V/s Outsourced Handling
  - iii IATA Standard Ground Handling Agreement

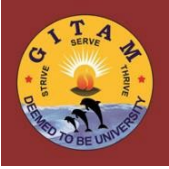
#### **Course outcomes:**

- Students will be able to apply the Basic knowledge of Aviation and Airport Operations in the real-life situation
- This subject will enable them to enhance their ability and professional skills in the Aviation Industry & Airport Operations

#### **Text & Reference Books:**

1. Course Material Prepared by LSC
2. Airport Operations- Norman Ashford, Pierre Coutu, John Beasley- McGraw-Hill Education; 3rd edition (16 December 2012)
3. Principles of Airport Economics- P.S. Sengupta- Excel Books (1 December 2007)
3. Managing Airports- An International Perspective- Anne Graham- Routledge; 5 edition (June 9, 2018)
5. IATA Airport Handling Manual- 40th edition- Year of Publication- 2020
4. IATA Ground Operations Manual- 9th edition- Year of Publication-2020



	OPTS3031	<b>Introduction to Air Cargo Industry</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>J</b>	<b>C</b>	
			3					3	
	<b>Course owner</b>	Department of Operations	Syllabus version				1.0		
	<b>Course Pre-requisite(s)</b>	NIL	Contact hours				45		
	Course Co-requisite(s)	NIL	Date Approved						
Alternate Exposure									

Air cargo is growing in popularity as the medium of choice when it comes to shipping time sensitive goods, belongings, documents and information from one place to another. Air cargo refers to the act of using an air carrier as the transport vessel for shipment purposes. The benefits of air cargo are the speed and convenience of using such a service. Air cargo can get your shipment to its overseas destination within a day in many instances and it has become an integral and important part of the global logistics network chain.

**COURSE OBJECTIVES:**

- To develop competencies and knowledge of students to become Air Cargo Professionals
- To help Students to understand Fundamentals of Air Cargo Industry

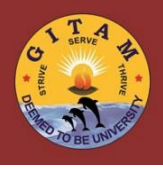
<b>Topics</b>
<p><b>Unit – I:</b> History of Air Cargo &amp; Multi Modal forms of Transport</p> <p>a. History of Air Cargo &amp; Mail, Air Freight, Air Express, Overnight Air Express &amp; Air Mail  b. Other Multi Modal forms of Transport- Rail, Sea &amp; Surface Transport- Key Concepts</p> <p><b>Unit – II:</b> Key Organizations Facilitating Air Cargo International Air Transport Association (IATA), International Civil Aviation Organization (ICAO), International Federation of Freight Forwarders Association (FIATA), The International Air Cargo Association (TIACA)</p> <p><b>Unit – III:</b> Air Cargo Business Models (air freighters, Charters, Integrators, Combination Carriers, Systems), Couriers, E-commerce, Postal mail</p> <p>a. Key Concepts- Brief Introduction to the Business Models  b. Impact of various Business Models in relation to geography, size and scope</p> <p><b>Unit – IV:</b> Key Stakeholders &amp; Key Terminologies</p> <p>a. Key Stakeholders- Airports, Airlines (Direct), Airlines through General Sales Agents (GSA) or General Sales &amp; Service Agents (GSSA), Shippers, Freight Forwarders, Custom Brokers, Consolidators, Trucking  b. Key Terminologies &amp; Abbreviations</p> <p><b>Unit – V:</b> Training &amp; Development in Air Cargo Industry</p> <p>a. Importance of Training in the Aviation &amp; Cargo Industry  b. Areas of Training in the Air Cargo Industry  c. Key Organizations facilitating Training &amp; Development in the Aviation &amp; Air Cargo Industry.</p>

**Course outcomes:**

1. Students will be able to apply the Basic knowledge of Air Cargo Industry in the real-life situation
2. This subject will enable them to enhance their ability and professional skills in the Air Cargo Industry

**Text & Reference Books:**

1. Course Material Prepared by LSC
2. Air Cargo Management- Air Freight and The Global Supply Chain- Michael Sales- Routledge (2016)
3. Air Cargo and Logistics - Classics and Contemporary practice by Rico Merket and Jackie Walters- Academic Publishers (01 June, 2019)
4. Moving Boxes by Air - The Economics of International Air Cargo by Peter S. Morrell and Thomas Klein - Routledge; 2 edition (19 October 2018)

	OPTS3041	<b>First Mile Operations</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>J</b>	<b>C</b>
			3					3
	<b>Course owner</b>	Department of Operations	Syllabus version		1.0			
	<b>Course Pre-requisite(s)</b>	NIL	Contact hours		45			
	<b>Course Co-requisite(s)</b>	NIL	Date Approved					
	<b>Alternate Exposure</b>							

First-mile delivery is at the start of the delivery portion of the supply chain and last-mile delivery is at the end of the supply chain. First-mile operations get the product from the manufacturer via a courier to a carrier.

**COURSE OBJECTIVES:**

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

<b>Topics</b>
<p><b>Unit – I:</b> Role of First Mile in E-Commerce Logistics            Difference between First Mile, Line Haul and Last Mile operations. -First Mile Operations - Overview. -Why is First Mile operations important in e-commerce logistics-First Mile process flow.</p> <p><b>Unit – II:</b> Shipment Pickup Operations            Shipment pickup process. -Pickup operations staff - roles and responsibilities. -Pickup coordination. -Safety and security of shipments during pickup-Pickup documentation.</p> <p><b>Unit – III:</b> Shipment Processing Operations            Primary and secondary processing. -Bagging operations. -Manual processing operations-Automated processing operations</p> <p><b>Unit – IV:</b> Layout of A Processing Centre Inbound operations-Processing Operations-OutboundOperations-Safety and security-Processing Centre staff - roles and responsibilities</p> <p><b>Unit – V:</b> First Mile Analytics and Metrics            Productivity-Pickup operations metrics-Processing operations metrics-FirstMile dashboard. Tools and Applications            Pickup tools and applications-Processing tools and applications-Exceptions in First Mile and impact on operations Tools and communication to resolve exceptions.</p>

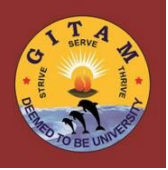
**Course outcomes:**

The students will learn:

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

**Text & Reference Books:**

1. Course Material Prepared by LSC

	OPTS3051	<b>Last Mile Operations</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>J</b>	<b>C</b>	
			3					3	
	<b>Course owner</b>	Department of Operations	Syllabus version				1.0		
	<b>Course Pre-requisite(s)</b>	NIL	Contact hours				45		
	<b>Course Co-requisite(s)</b>	NIL	Date Approved						
Alternate Exposure									

Last-mile operations encompass moving goods between a transport hub to the delivery location. It is of utmost importance to keep a competitive edge and engage in innovative approaches to stay ahead of the competition.

**COURSE OBJECTIVES:**

- To understand Last Mile Operations in E-Commerce

<b>Topics</b>
<p><b>Unit – I:</b> Introduction</p> <p>1.1 What is Last Mile in Ecommerce?</p> <p>1.2 Importance of Last Mile in the supply chain</p> <p>1.3 Last Mile Delivery challenges for ecommerce</p> <p>1.4 Trends in Last Mile delivery</p> <p>1.5 Route optimization in Last Mile operations</p> <p><b>Unit – II:</b> Last Mile Processes</p> <p>2.1 Delivery Process &amp; its challenges</p> <p>2.2 Reverse pickup process in Last mile operations</p> <p>2.3 Challenges in Reverse Pickup process</p> <p>2.4 Tools and applications in Last Mile operations</p> <p>2.5 Considerations for effective last mile logistics strategy</p> <p><b>Unit – III:</b> Metrics</p> <p>3.1 Metrics to measure in last file</p> <p>3.2 Automation and technology driving metrics.</p> <p><b>Unit – IV:</b> Customer service</p> <p>4.1 Customer service and its importance</p> <p>4.2 Good and bad customer service (Dos and Don'ts of customer service)</p> <p>4.3 Relationship between metrics and customer service.</p> <p><b>Unit – V:</b> Prospects of Last Mile Logistics- 5Hrs</p> <p>5.1 Innovations in Last Mile Logistics</p> <p>5.2 Technology Trends in Last Mile Delivery</p> <p>5.3 Last Mile Delivery Market Future Prospects</p>


**Course Outcome:**

The students will be able to:

1. Understand the basics concept of Last mile logistics in E-Commerce
2. Understand the processes involved in Last mile logistics
3. Understand various metrics and customer services processes to be followed in last mile logistics
4. Explain the prospects of last mile logistics.

**Text & Reference Books:**

1. Course Material Prepared by LSC

	OPTS3061	<b>Multi-Modal Transportation</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>J</b>	<b>C</b>	
			3					3	
	<b>Course owner</b>	Department of Operations	<b>Syllabus version</b>				1.0		
	<b>Course Pre-requisite(s)</b>	NIL	<b>Contact hours</b>				45		
	<b>Course Co-requisite(s)</b>	NIL	<b>Date Approved</b>						
	<b>Alternate Exposure</b>								

Multimodal Transport is the combination of different means of transport, in order to facilitate the movement of cargo, i.e. making it faster and more efficient. When it comes to this mode of transportation, there is more than one kind of vehicle necessary to take the goods to their final destination, by the use of trucks, trains, ships, airplanes or some other mean of transport for the delivery.

#### **COURSE OBJECTIVES:**

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

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

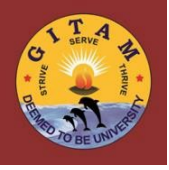
**Course outcomes:**

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

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

**TEXTBOOKS**

- 1 Course Material Prepared by LSC

	OPTS3071	<b>Commercial Aspects of Transportation</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>J</b>	<b>C</b>	
			3					3	
	<b>Course owner</b>	Department of Operations	Syllabus version				1.0		
	<b>Course Pre-requisite(s)</b>	NIL	Contact hours				45		
	<b>Course Co-requisite(s)</b>	NIL	Date Approved						
	<b>Alternate Exposure</b>								

Every business in one or another way is connected with this economic activity and it directly influences their functioning or performance. In simple words, the organization relies on the transportation system completely for better and timely delivery of their services and products.

#### **COURSE OBJECTIVES:**

- To highlight vital part of commercial considerations in providing transport services for Freight and Passengers movement.
- To Understand the importance and need for marketing and strategies involved.
- To Describe the principles in fixing Railway Freight and Rates
- To evaluate Competition in rates of Road and Rail mode of transportation.

<b>Topics</b>
<p><b>Unit – I:</b> Commercial Aspects in Transportation – A Perspective-Role and importance of Commercial Aspects, relative strengths of rail vs road-Concept of commercial viability vis a vis operational feasibility-Issues/functions included in the commercial aspects, organisational set up to handle these</p>
<p><b>Unit – II:</b> Commercial Aspects involving Passenger transportation –Passenger Services on Indian Railways;Booking and Reservation of passengers, Various class of services, types of tickets, concessions etc- Passengers Services in Road Sector, A state subject- differences from State to state-Supplementary and related services such luggage, parcel, refunds, catering etc.</p>
<p><b>Unit – III:</b> Commercial Aspects involving Goods / Freight transportation–Different components of freight traffic, Booking and delivery of freight traffic on Railways, Demurrage and Wharfage, sidings-Booking and delivery of goods in roadways, agencies involved and their role-Claims and liabilities, Organisational set-up and procedure for Claims’ compensation,</p>
<p><b>Unit – IV:</b> Pricing of Transport-Basic consideration in pricing; Different type of costs involved in computing price,Relativity index of passenger fares in Indian Railways; surcharges and discounts-Principles of classification and Rate fixation and routing of traffic-Cost of service vs value of service, Cross subsidisation etc</p>
<p><b>Unit – V:</b> Marketing Strategies for Commercial growth –Need for marketing, Rail vs Road: Complementary and not competitive role, High profit yielding commodities-Incentive schemes, IT-enabled user-friendly solutions for Booking, payment, tracking consignments and trains, Passenger movement – PRS, etc- Future trends: technology induced improvements in various aspects of commercial working</p>


**Course outcomes:**

1. Develop a clear perspective of various commercial aspects in transportation
2. Distinguish between the Operational feasibility of a work and its commercial viability
3. Know the issues involved in booking and reservation of passengers,
4. Know the various types of costs involved and understand the concept of cost-of-service vs value of service

**Textbooks**

1. Course Material Prepared by LSC



	OPTS3081	<b>Warehouse Automation</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>J</b>	<b>C</b>	
			2					2	
	<b>Course owner</b>	Department of Operations	Syllabus version				1.0		
	<b>Course Pre-requisite(s)</b>	NIL	Contact hours				45		
	<b>Course Co-requisite(s)</b>	NIL	Date Approved						
Alternate Exposure									

Warehouse automation is the process of automating the movement of inventory into, within, and out of warehouses to customers with minimal human assistance. As part of an automation project, a business can eliminate labor-intensive duties that involve repetitive physical work and manual data entry and analysis.

**COURSE OBJECTIVES:**

- To familiarize the student with the basic concept of the most common automations from light to heavy
- To familiarize the student with the basic concept of the supply chain including Logistics, warehousing, IT as well as distribution and planning.

<b>Topics</b>
<p><b>Unit – I:</b> Overview of the Traditional Warehouse Operations - Warehouse Automation Systems: Over-view, Applications, Costs, Benefits, ROI – Receiving Automation: PalletInverter - Palletizers</p>
<p><b>Unit – II:</b> Storage and Retrieval Automation: Vertical and Horizontal Carrousel - Vertical Lift Module -Orbital Shuttle Systems - AS/RS Mini Load - AS/RS Unit Load - Garments on Hangers</p>
<p><b>Unit – III:</b> Material Flow Automation - Conveyors - Lifts - Automated Guided Vehicles - Monorail</p>
<p><b>Unit – IV:</b> Picking/Outbound Automation : Pick / Put To Light - A Frame - Automated Order Selection –Pick-N-Go - Outbound Sorters - Automatic Truck Loading .</p>
<p><b>Unit – V:</b> Automating Data Collection : RFID - Automated Measurements Systems - Unique Solution Providers: Kiva Robot - Auto Store - Additional Automation Around the Warehouse Building Management System: Weight scales - Delivery Drones - Delivery Robots.</p>

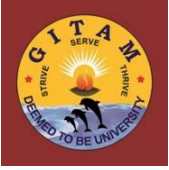
**Course Outcomes:**

The students will be able to:

- Recognize the Knowledge of the common and latest automation solutions for warehousing
- Understand and Recognize the costs and pre-requisites for each automation solution and the expected benefits of the different solutions
- Able to complete the analysis and to select the most appropriate solution for warehouse automation

**Text & Reference Books:**

- Course Material Prepared by LSC
- Industrial Automation and Robotics: A.K.Gupta and S K Arora
- Advanced Industrial Automation and its Application: Ravindra Sharma
- Industrial Control Electronics Devices, Systems, & Applications 3D Edition Author: Terry Bartler Publisher: Delmar

	OPTS3091		<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>J</b>	<b>C</b>
		<b>Best Practices for Transportation</b>	2					2
	<b>Course owner</b>	Department of Operations	Syllabus version		1.0			
	<b>Course Pre-requisite(s)</b>	NIL	Contact hours		45			
	<b>Course Co-requisite(s)</b>	NIL	Date Approved					
	Alternate Exposure							

The world of logistics and managed transportation is continuously evolving. Transportation professionals are tasked with reducing costs while increasing customer satisfaction levels. However, market forces such as higher fuel costs and decreased capacity work to undermine these goals. Transportation management optimization can help, provided shippers know a few things about its value and where to start.

**COURSE OBJECTIVES:**

- To familiarize the student with the information about transportation considerations for the import, export and domestic trade processes.

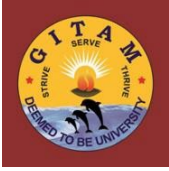
<b>Topics</b>
<p><b>Unit – I:</b> Transportation Strategy Considerations: An Overview of the Import Process - An Overview of the Export Process - Bonding Issues for Exporters - Negotiating Rates - Insurance and Liability - E-Logistics and the Internet - UN Module regulation - introduction to carriage of dangerous goods.</p>
<p><b>Unit – II:</b> Import And Export Documentation Requirements: An overview of commercial documents - Commercial Invoice - Consular Invoice - Packing List - Certificates of Origin - Permits of Export and Import of Goods - Cargo Control Documents - Other Commercial Documents - Distribution of Commercial Documents</p>
<p><b>Unit – III:</b> Airfreight: Introduction - Documents - The Air Waybill (AWB) - Moving Goods by Air - Export Packaging - Air Cargo Handling, Delivery - The Role of IATA - Shipping Dangerous Goods by Air - Glossary of Airfreight Terminology. Ocean freight: Documents - Containers - FCL/LCL - Handling the LCL - Handling the Ocean Freight Shipment - Shipping Dangerous Goods by Ocean</p>
<p><b>Unit – IV:</b> Road Transportation: Introduction to Road Transportation - Trucking/Highway Regulations - Documents - The Truck Bill of Lading - Standard Trucks - Specialized Trucks - Lorry haul trucks - Heavy load haulage multi axle age multi truck - Service Options for Truck Transport - Shipping Dangerous Goods by Truck - LTL/FTL Shipments - Trucking Rates and Tariffs A Checklist of Trucking Considerations - Border Security Issues. Rail Transportation: Introduction - Shipping Goods by Rail The Railway Bill of Lading - Rail Equipment - Moving Dangerous Goods by Rail - Over Dimensional and Heavy Lift Cargo by Rail.</p>
<p><b>Unit – V:</b> Intermodal Transport: Introduction - Shipping goods intermodally - Documentary Considerations - Other Considerations - Telematics - Routing – GPRS - Monitoring fuel economy - Driver practice – Indicators - Future prospectus growth of road - .Automation - INCOTERMS 2000 - Transfer of Liability - Incorporating Incoterms into the Contract of Sale - Incoterms Structures - Mode of Transport Relate to Incoterms. Advantages of multi module transport document.</p>

**Course outcomes:**

- The students will be able to assess transportation operations towards increased logistics efficiency while discovering opportunities for saving time, expense and hassle.

**Text & Reference Books:**

- Course Material Prepared by LSC
- "Self-Compliance Strategies and the Administrative Monetary Penalty System", a Manual for Importers and Exporters : PF Collins Customs Broker Ltd., November 2002
- OAG® Air Cargo Guide TM May 1997, published by OAG, a division of Reed Elsevier Inc., OAG, 2000 Clearwater Drive, Oak Brook Illinois.
- International Air Transport Association (IATA) Dangerous Goods Regulations

	OPTS3101	<b>Inland Waterways &amp; Coastal Shipping</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>J</b>	<b>C</b>	
			2					2	
	<b>Course owner</b>	Department of Operations	Syllabus version					1.0	
	<b>Course Pre-requisite(s)</b>	NIL	Contact hours					45	
	<b>Course Co-requisite(s)</b>	NIL	Date Approved						
Alternate Exposure									

With an extensive coastline and a chain of major and minor ports, India's policy makers have at all times been aware of the importance of the maritime industry and the alterations it can bring into the economy. However, in the past couple of years, a lot of activities, announcements, planning and discussions surrounding the Indian maritime have propelled its momentum and has brought it into the limelight.

### COURSE OBJECTIVES:

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

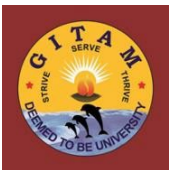
<b>Topics</b>
<p><b>Unit – I:</b> Basics of shipping- Introduction for shipping - Types of ship- sizes of ship – Basic terminology of ships- Sea transport and its importance- Roll of ports in sea transport - Coastal shipping and its importance.</p>
<p><b>Unit – II:</b> Inland waterways: Introduction –Scope –Sources ( lakes, Rivers, Canals, Back water, creeks, watercourses inlets and bays)-Working principles -Impact - Inland waterways in India: locations</p>
<p><b>Unit – III:</b> Roll and importance of inland waterways: Infrastructure facility required - Roll and importance of inland water ways in transportation- Transportation through creeks</p>
<p><b>Unit – IV:</b> Inland waterways : Road connectivity – Availability of cargo ( scarcity )- Navigation (night navigation)- Draft restriction</p>
<p><b>Unit – V:</b> Inland waterways in other countries: Bangladesh – China - Vietnam - Europe Inland waterways in India : Network in India –upcoming inland waterways – Inland waterways authority – Government policies on inland waterways – National waterways Act</p>

### Course outcomes:

- Recognize the impact of Inland water ways and coastal shipping
- Recognize the importance and future development of Indian water ways.

**Text & Reference Books:**

1. Course Material Prepared by LSC
2. Inland Waterway Transport: Challenges and prospects (Routledge Studies in Transport Analysis)  
Hardcover – Import, 12 Jul 2016 by Bart Wiegmans (Editor), Rob Konings (Editor)
3. Inland waterways Transportation (IWT ) in India – Machiraju presentation Pvt ltd

	OPTS3111	<b>Courier, Express &amp; Parcel Services</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>J</b>	<b>C</b>	
			2					2	
	<b>Course owner</b>	Department of Operations	Syllabus version				1.0		
	<b>Course Pre-requisite(s)</b>	NIL	Contact hours				45		
	<b>Course Co-requisite(s)</b>	NIL	Date Approved						
<b>Alternate Exposure</b>									

CEP stands as an abbreviation for courier express parcel services, which offer logistic services in these areas. The offer of the service providers differs in the speed, weight, and volume of the packages and the way of carrying out the shipment of the goods. Especially the regulations regarding weight and volume allow for strong standardization and also great potential for automating the service.

#### **COURSE OBJECTIVES:**

1. To develop competencies and knowledge of students to become Courier and Express Professionals
2. To orient students in the field of Courier and Express • To help Students to understand Courier and Express

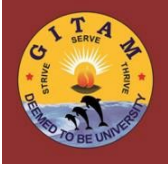
<b>Topics</b>
<p><b>Unit – I:</b> Types of consignments for shipment - Information on labels and handling instructions - consignee locations consignments and destinations- consignment shipment operations – (loading, handling, scheduling and documentation) - Special instructions for safe handling of fragile consignments</p>
<p><b>Unit – II:</b> Customer declarations – verification of customer declarations and consignment package - Clarification procedure in case of discrepancies noticed - Generation of bill of lading / shipping bill for export consignments – Coordination for import/export consignments clearance</p>
<p><b>Unit – III:</b> Hub-Spoke Operations &amp; Inbound and Outbound activities: Introduction – Hub spoke activities inbound and outbound activities. Types of consignments coming in the hub-spoke - layout of the hub-spoke - Areas to receive, sort and inspect - Documentation activities in hub-spoke - Inspection process of inbound sorted and outbound consignments.</p>
<p><b>Unit – IV:</b> Tracking and tracing; AWB – essential time of arrival delivery - Last mile delivery – LMD - First mile delivery</p>
<p><b>Unit – V:</b> Customer satisfaction- quality, delivery time, costs (shortest cost, loss prevention) - Weight rate, cube scan – diversions/LBW/Volumetric density of cargo</p>

#### **Course outcomes:**

- Students will be able to apply the Basic knowledge of Courier and Express in the real-life situation
- This subject will enable them to enhance their ability and professional skills

#### **Text & Reference Books:**

- Course Material Prepared by LSC
- Logistics and Supply chain management – Martin Christopher
- Basics of Distribution Management; A Logistical Approach Prentice HALL of India - Kapoor Sathish
- Ware house management and Inventory control - Vikas Publication House

	OPTS3121	<b>In-plant Logistics</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>J</b>	<b>C</b>	
			2					2	
	<b>Course owner</b>	Department of Operations	Syllabus version				1.0		
	<b>Course Pre-requisite(s)</b>	NIL	Contact hours				45		
	<b>Course Co-requisite(s)</b>	NIL	Date Approved						
	<b>Alternate Exposure</b>								

In-plant logistics covers movements of raw materials, components and sub-assemblies – either from/to stocking points to/from line-sides, within the manufacturing plant for turning them into finished goods, as well as managing finished products after they come out of the production line.

### COURSE OBJECTIVES:

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

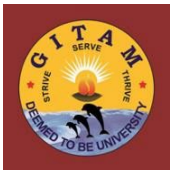
<b>Topics</b>
<p><b>Unit – I:</b> Introduction to Logistics in a manufacturing setup - Manufacturing process - physical flow - Assembly line – OTIF (on time in full) - Basic activities of in-plant logistics: Loading, Unloading, Receiving, sorting, Storing, Picking and dispatch activities - process of coordination with assembly line</p>
<p><b>Unit – II:</b> Job shop- work allocation - Production scheduling – selection of products/ models/parts/ Team table/Time table - Material flow – production line –feeding just in time inventory, Vendor management</p>
<p><b>Unit – III:</b> Inbound logistics- inventory management, importance, Value addition, stock counts, audits Out bound logistics – Finished goods (FG)- tooling, binding ,creating, input <b>Unit</b></p>
<p><b>– IV:</b> process, output - packaging, Kitting, far goods (FH), Spare parts, , After markets process, schedule of transport, vendor coordination</p>
<p><b>Unit – V:</b> Timely supply – scheduling, vendor coordination quality control, pre delivery Inspection, Qualityassurance, on time in full (OTIF)</p>

### Course outcomes:

1. Students will be able to apply the Basic knowledge of In-plant operations in the real life situation
2. This subject will enable them to enhance their ability and professional skills

### Text & Reference Books:

1. Course Material Prepared by LSC

	OPTS3131	<b>Export and Import Documentation</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>S</b>	<b>J</b>	<b>C</b>	
			2					2	
	<b>Course owner</b>	Department of Operations	Syllabus version				1.0		
	<b>Course Pre-requisite(s)</b>	NIL	Contact hours				45		
	<b>Course Co-requisite(s)</b>	NIL	Date Approved						
<b>Alternate Exposure</b>									

Proper documentation helps you and your overseas buyer in handling your transactions in all means including time management, payment protection, claim on loss etc.

### COURSE OBJECTIVES:

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

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

### Course outcomes:

1. Recognize the impact of information and communication technologies, especially of the internet in business operations.
2. Recognize the fundamental principles of eBusiness and e-commerce.
3. Explain the security protocols and the issues in internet security.



**Text & Reference Books:**

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

**Websites:**

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