FACULTY OF SCIENCE AND HUMANITIES

ACADEMIC CURRICULA

UNDERGRADUATE DEGREE PROGRAMME

Bachelor of Computer Applications (Honors)

Four Years

National Education Policy

Learning Outcome-based Curricula Framework

National Credit Framework

Academic Year

2024 - 2025

SRM INSTITUTE OF SCIENCE AND TECHNOLOGY

(Deemed to be University u/s 3 of UGC Act, 1956)

Kattankulathur, Chengalpattu District 603203, Tamil Nadu, India

1.	Vision Statement
Stmt - 1	Imparting quality education in Computer Applications and prepare young minds to serve community
Stmt - 2	Contributing effectively to produce globally competent quality professionals in the field of Computer Applications
Stmt -3	Prioritizing adaptability and industry alignment for a unique learning experience

2.	Mission Statement
Stmt - 1	Impart student's essential knowledge and skills required for a successful career in Computer Applications
Stmt - 2	Cultivate and foster a conducive environment for scholarly research
Stmt - 3	Inculcate in the students a sense of commitment to professional ethics, moral values with emphasis on team work and leadership qualities
Stmt - 4	Instill the students with a clear awareness of environmental issues and their relevance to their profession
Stmt - 5	Impress upon the students the impact of their work on the nation's economic and social progress

"Stmt" stands for Statement

3.	Programme Education Objectives (PEO)
PEO - 1	To develop skills and domain knowledge to solve real world problems in diverse applications
PEO - 2	To facilitate professional skills and competencies for successful career in the field of Computer applications
PEO - 3	To possess the knowledge for pursuing advanced studies and entrepreneurial opportunities in the field of Computer Applications
PEO - 4	To kindle the minds of students to take up research and development in Computer Applications with missionary zeal
PEO - 5	To prepare the students as balanced individuals who are keen to leave a mark by excelling in their profession

4.	Consistency of Programme Education Objectives with Mission				
	Mission Stmt. - 1	Mission Stmt. - 2	Mission Stmt. – 3	Mission Stmt. - 4	Mission Stmt. - 5
PEO - 1	High	High	High	High	Medium
PEO - 2	High	High	Medium	High	High
PEO - 3	High	Medium	Medium	Medium	Low
PEO - 4	Medium	Low	High	Low	Medium
PEO - 5	High	High	Low	Medium	High

** H – High Correlation, M – Medium Correlation, L – Low Correlation
** H, M, and L have numerical equivalents of 3, 2, 1 correspondingly

5.	Programme Learning Outcomes (PLO)
	Graduate Learning Attributes
PLO - 1	Problem Solving, Critical Thinking, Creativity
PLO - 2	Communication Skills, Collaborating Skills
PLO - 3	Independent Thinking, Analytical Reasoning, Learning to Learn, Research Skills
PLO - 4	Leadership Qualities, Professionalism, Autonomy, Accountability
PLO - 5	Digital Technology Skills
PLO - 6	Value Inculcation, Multicultural inclusivity
PLO - 7	Environmental Action, Community Engagement
PLO - 8	Entrepreneurial Risk Taking
PSO -1	Encompassing both theoretical knowledge and real-world applications to solve problems, to evaluate information and to develop software tools
PSO-2	Practical, analytical, proficient programming skills and inovative solutions in various domains of Computer Applications

PSO-Programme Specific Outcome

6. Mapping of PLOs with PEOs										
	PLO - 1	PLO - 2	PLO - 3	PLO - 4	PLO - 5	PLO - 6	PLO - 7	PLO – 8	PSO - 1	PSO - 2
PEO - 1	3	3	3	2	3	1	1	3	3	3
PEO - 2	3	3	3	3	3	2	3	2	3	3
PEO - 3	2	2	2	1	2	2	2	3	3	3
PEO - 4	3	2	3	2	3	3	3	2	3	3
PEO - 5	2	3	2	3	2	3	2	2	2	3

7. Programme Structure

Discipline Core Courses (C)

Course Code	Course Title	Sessions/ Week			
		L	T	P	C
UCA24101J	Digital Logic Design	3	0	3	4
USA24102J	Programming for Problem Solving	3	0	3	4
UMS24101T	Discrete Mathematical Structures	4	0	0	4
USA24201J	Data Structures and Algorithms	3	0	3	4
UCA24202J	Object Oriented Programming	3	0	3	4
UMS24202T	Mathematical Foundation	4	0	0	4
UCA24301J	Programming Using Java	3	0	3	4
USA24302J	Database Management Systems	3	0	3	4
UMS24303T	Numerical Methods	4	0	0	4
USA24401J	Python Programming	3	0	3	4
Total Learning Credits					40

Discipline Core Elective Courses (D)

Course Code	Course Title	Sessions/ Week			C
		L	T	P	
UMS24D01T	Resource Management Techniques	4	0	0	4
UMS24D02T	Statistical Methods				
UCA24D03J	Computer Networks	3	0	3	4
UCA24D04J	Windows Programming				
UCA24D05J	Open Source Technologies	3	0	2	4
UCA24D06J	Operating Systems				
USA24D07J	Cloud Computing	3	0	3	4
UCA24D08J	Web development using Angular JS and MongoDB				
UCA24D09T	Software Engineering and Testing	4	0	0	4
USA24D10T	Wireless Communication and Mobile Computing				
UCA24D11T	Research Methodology in Computer Applications	4	0	0	4
UDS24D12T	Data Analytics for Project Management				
UCA24D13J	Programming Using C#	3	0	3	4
UCA24D14J	Internet of Things				
UCA24D15J	Object Oriented Analysis and Design	3	0	3	4
UCA24D16J	Computer Vision				
UCA24D17J	Web Development using Node JS and MongoDB	3	0	2	4
USA24D18J	Cyber Security				
UCA24D19J	Big Data Analytics	3	0	2	4
USA24D20J	Blockchain Technology				
Total Learning Credits					40

Elective Courses (Minor) (E)

Course Code	Course Title	Sessions/ Week			
		L	T	P	C
UDS24E01J	Data Science and Analytics	3	0	3	4
UDS24E02J	Data Analytics using Spreadsheet	3	0	3	4
UDS24E03J	Essentials of Machine Learning	3	0	3	4
UDS24E04J	Programming using R	3	0	3	4
UDS24E05J	Programming using Python	3	0	3	4
UDS24E06J	Introduction to Deep Learning	3	0	3	4
UDS24E07J	Applications of Computer Vision	3	0	3	4
UDS24E08J	Data Visualization Tools	3	0	3	4
Total Learning Credits					32

Multidisciplinary Courses (M)

Course Code	Course Title	Sessions / Week			C
		L	T	P	
UCA24M01J	Web Technology	2	0	2	3
UCA24M02J	Go Programming	2	0	3	3
UCA24M03J	Data Analysis using R	2	0	3	3
Total Learning Credits					9

Value Added Courses (V)

Course Code	Course Title	Sessions / Week			C
		L	T	P	
UCD24V01T	Essentials of Artificial Intelligence	1	0	0	1
UES24V01T	Environmental Studies	2	0	0	2
UCD24V02T	Universal Human Values	2	0	0	2
Total Learning Credits					5

Ability Enhancement Courses(A)					
Course Code	Course Title	Sessions / Week			C
		L	T	P	
ULT24AE1J	Tamil-I	2	0	2	3
ULH24AE1J	Hindi-I				
ULF24AE1J	French-I				
ULE24AE1J	English	2	0	2	3
ULT24AE2J	Tamil-II	2	0	2	3
ULH24AE2J	Hindi-II				
ULF24AE2J	French-II				
Total Learning Credits					9

Skill Enhancement Courses (S)					
Course Code	Course Title	Sessions/ Week			C
		L	T	P	
UCD24S01J	Verbal Ability and Skill Development	1	0	2	2
UCD24S02L	Quantitative Aptitude and Logical Reasoning	0	0	2	1
UCD24S03J	Industry Oriented Employability and Leadership Skills	1	0	2	2
UEN24S01L	Communication Skills	0	0	4	2
UCD24S04J	Career Readiness and Professional Skills	1	0	2	2
Total Learning Credits					9

Project Work / Internship (P)					
Course Code	Course Title	Sessions/ Week			C
		L	T	P	
UCA24P01L	Internship – 1	0	0	0	1
UCA24P02L	Internship – 2	0	0	0	1
UCA24P03L	Project Work	0	0	4	2
UCA24P04L	Research Project and Dissertation	0	0	24	12
UCA24P05L	Professional Internship				
Total Learning Credits					16

Mandatory Courses (Y)					
Course Code	Course Title	Sessions/ Week			C
		L	T	P	
UNS24Y01L	NSS	0	0	0	0
UNC24Y01L	NCC				
UNO24Y01L	NSO				
UYG24Y01L	YOGA				
UMI24Y01L	My India Project	0	0	0	0
Total Learning Credits					0

Internship – 1 to be completed during Summer Vacation of the First year
Internship – 2 to be completed during Summer Vacation of the Second year
Students from other departments can enroll in Elective Courses (Minor) (E)
Students from all departments will be able to enroll in Multidisciplinary Courses (M).

Semester – I					
Course Code	Course Title	Sessions Per Week			C
		L	T	P	
ULT24AE1J	Tamil – I	2	0	2	3
ULH24AE1J	Hindi – I				
ULF24AE1J	French – I				
ULE24AE1J	English	2	0	2	3
UCA24101J	Digital Logic Design	3	0	3	4
USA24102J	Programming for Problem Solving	3	0	3	4
UMS24101T	Discrete Mathematical Structures	4	0	0	4
UCD24S01J	Verbal Ability and Skill Development	1	0	2	2
Total Learning Credits					**20**

8. Course Allocation across Semesters

Semester – II					
Course Code	**Course Title**	**Sessions Per Week**			**C**
		L	**T**	**P**	
ULT24AE2J	Tamil – II	2	0	2	3
ULH24AE2J	Hindi – II				
ULF24AE2J	French – II				
USA24201J	Data Structures and Algorithms	3	0	3	4
UCA24202J	Object Oriented Programming	3	0	3	4
UMS24202T	Mathematical Foundation	4	0	0	4
UCD24V01T	Essentials of Artificial Intelligence	1	0	0	1
	Multidisciplinary Course – I				3
UCD24S02L	Quantitative Aptitude and Logical Reasoning	0	0	2	1
UNS24Y01L	NSS	0	0	0	0
UNC24Y01L	NCC				
UNO24Y01L	NSO				
UYG24Y01L	YOGA				
Total Learning Credits					20

Total Learning Credits of Courses of FIRST year = 40

Semester – III					
Course Code	**Course Title**	**Sessions Per Week**			**C**
		L	**T**	**P**	
UCA24301J	Programming using Java	3	0	3	4
USA24302J	Database Management Systems	3	0	3	4
UMS24303T	Numerical Methods	4	0	0	4
	Minor Elective – I				4
	Multidisciplinary Course – II				3
UCA24P01L	Internship -I	0	0	0	1
Total Learning Credits					20

Semester – IV					
Course Code	**Course Title**	**Sessions Per Week**			**C**
		L	**T**	**P**	
USA24401J	Python Programming	3	0	3	4
UMS24D01T	Resource Management Techniques	4	0	0	4
UMS24D02T	Statistical Methods				
	Minor Elective – II				4
	Minor Elective – III				4
UEN24S01L	Communication Skills	2	0	0	2
UCD24S03J	Industry Oriented Employability and Leadership Skills	1	0	2	2
UMI24Y01L	My India Project	0	0	0	0
Total Learning Credits					**20**

Total Learning Credits of Courses of SECOND year = 40

Semester – V					
Course Code	**Course Title**	**Sessions Per Week**			**C**
		L	**T**	**P**	
UCA24D03J	Computer Networks	3	0	3	4
UCA24D04J	Windows Programming				
UCA24D05J	Open Source Technologies	3	0	2	4
UCA24D06J	Operating Systems				
	Minor Elective – IV				4
	Multidisciplinary Course – III				3
UES24V01T	Environmental Studies	2	0	0	2
UCD24S04J	Career Readiness and Professional Skills	1	0	2	2
UCA24P02L	Internship - II	0	0	0	1
Total Learning Credits					**20**

Semester – VI					
Course Code	**Course Title**	**Sessions Per Week**			**C**
		L	**T**	**P**	
USA24D07J	Cloud Computing	3	0	3	4
UCA24D08J	Web development using Angular JS and MongoDB				
UCA24D09T	Software Engineering and Testing	4	0	0	4
USA24D10T	Wireless Communication and Mobile Computing				
	Minor Elective – V				4
	Minor Elective – VI				4
UCA24P03L	Project Work	0	0	4	2
UCD24V02T	Universal Human Values	2	0	0	2
Total Learning Credits					**20**

Total Learning Credits of Courses of THIRD year = 40

Semester – VII					
Course Code	**Course Title**	**Sessions Per Week**			**C**
		L	**T**	**P**	
UCA24D11T	Research Methodology in Computer Applications	4	0	0	4
UDS24D12T	Data Analytics for Project Management				
UCA24D13J	Programming using C#	3	0	3	4
UCA24D14J	Internet of Things				
UCA24D15J	Object Oriented Analysis and Design	3	0	3	4
UCA24D16J	Computer Vision				
	Minor Elective – VII				4
	Minor Elective – VIII				4
Total Learning Credits					**20**

Semester – VIII					
Course Code	**Course Title**	**Sessions Per Week**			**C**
		L	**T**	**P**	
UCA24D17J	Web Development using Node JS and MongoDB	3	0	2	4
USA24D18J	Cyber Security				
UCA24D19J	Big Data Analytics	3	0	2	4
USA24D20J	Blockchain Technology				
UCA24P04L	Research Project and Dissertation	0	0	24	12
UCA24P05L	Professional Internship				
Total Learning Credits					**20**

Total Learning Credits of Courses of FOURTH year = 40

8.1 Elective Courses (MINOR) offered by the Department of Computer Applications to other Departments (excluding Department of Computer Applications)

Elective Courses (Minor) (E)						
Semester	**Course Code**	**Course Title**	**Hours/ Week**			
			L	**T**	**P**	**C**
III	UDS24E01J	Data Science and Analytics	3	0	3	4
IV	UDS24E02J	Data Analytics using Spreadsheet	3	0	3	4
IV	UDS24E03J	Essentials of Machine Learning	3	0	3	4
V	UDS24E04J	Programming using R	3	0	3	4
VI	UDS24E05J	Programming using Python	3	0	3	4
VI	UDS24E06J	Introduction to Deep Learning	3	0	3	4
VII	UDS24E07J	Applications of Computer Vision	3	0	3	4
VII	UDS24E08J	Data Visualization Tools	3	0	3	4
Total Learning Credits						**32**

8.2 Multidisciplinary Courses offered by the Department of Computer Applications to all departments (including Department of Computer Applications)

Multidisciplinary Courses (M)						
Semester	**Course Code**	**Course Title**	**Hours/ Week**			
			L	**T**	**P**	**C**
II	UCA24M01J	Web Technology	2	0	2	3
III	UCA24M02J	Go Programming	2	0	3	3
V	UCA24M03J	Data Analysis using R	2	0	3	3
Total Learning Credits						**9**

9. Programme Articulation Matrix

Course Code	Course Title	Programme Learning Outcomes (PLO)									
		1	2	3	4	5	6	7	8	PSO1	PSO2
ULT24AE1J	Tamil – I	2	1	1	1	-	1	1	1	-	-
ULH24AE1J	Hindi – I	2	2	1	2	2	1	1	-	-	-
ULF24AE1J	French – I	2	2	1	2	2	1	1	-	-	-
ULE24AE1J	English	-	3	3	3	2	1	-	2	-	-
UCA24101J	Digital Logic Design	3	2	2	2	3	3	-	2	2	2
USA24102J	Programming for Problem Solving	3	2	2	2	3	3	-	2	2	2
UMS24101T	Discrete Mathematical Structures	3	2	2	2	3	3	-	2	2	2
UCD24S01J	Verbal Ability and Skill Development	3	3	2	2	-	3	-	2	2	2
ULT24AE2J	Tamil – II	2	1	2	1	-	1	1	1	-	-
ULH24AE2J	Hindi – II	2	2	1	2	2	1	1	-	-	-
ULF24AE2J	French – II	2	2	1	2	2	1	1	-	-	-
USA24201J	Data Structures and Algorithms	3	2	2	2	3	3	-	2	2	2
UCA24202J	Object Oriented Programming	3	2	2	2	3	3	-	2	2	2
UMS24202T	Mathematical Foundation	3	2	2	2	3	3	-	2	2	2
UCD24V01T	Essentials of Artificial Intelligence	3	3	2	2	3	3	-	2	2	2
	Multidisciplinary Course – I										
UCD24S02L	Quantitative Aptitude and Logical Reasoning	3	2	2	2	3	3	-	2	2	2
UNS24Y01L	NSS										
UNC24Y01L	NCC										
UNO24Y01L	NSO										
UYG24Y01L	YOGA										
UCA24301J	Programming using Java										
USA24302J	Database Management Systems										
UMS24303T	Numerical Methods										
	Minor Elective – I										
	Multidisciplinary Course – II										
UCA24P01L	Internship - I										
USA24401J	Python Programming										
UMS24D01J	Resource Management Techniques										
UMS24D02J	Statistical Methods										
	Minor Elective – II										
	Minor Elective – III										
UEN24S01L	Communication Skills										
UCD24S03J	Industry Oriented Employability Skills for Science										
UMI24Y01L	My India Project										
UCA24D03J	Computer Networks										
UCA24D04J	Windows Programming										
UCA24D05J	Open Source Technologies										
UCA24D06J	Operating Systems										
UCS24E04J	Minor Elective – IV										
	Multidisciplinary Course – III										
UES24V01T	Environmental Studies										
UCD24S04J	Career Readiness and Professional Skills										
UCA24P02L	Internship –II										
USA24D07J	Cloud Computing										
UCA24D08J	Web development using Angular JS and MongoDB										
UCA24D09T	Software Engineering and Testing										

USA24D10T	Wireless Communication and Mobile Computing										
	Minor Elective – V										
	Minor Elective – VI										
UCS24P03L	Project Work										
UCD24V02T	Universal Human Values										
UCA24D11T	Research Methodology in Computer Applications										
UDS24D12T	Data Analytics for Project Management										
UCA24D13J	Programming using C#										
UCA24D14J	Internet of Things										
UCA24D15J	Object Oriented Analysis and Design										
UCA24D16J	Computer Vision										
	Minor Elective – VII										
	Minor Elective – VIII										
UCA24D17J	Web Development using Node JS and MongoDB										
USA24D18J	Cyber Security										
UCA24D19J	Big Data Analytics										
USA24D20J	Blockchain Technology										
UCA24P04L	Research Project and Dissertation										
UCA24P05L	Professional Internship										

Abbreviations

CLR – Course Learning Rationale
CLO – Course Learning Outcomes
PLO – Programme Learning Outcomes
SLO – Session Learning Outcomes
BLoT – Bloom's Level of Thinking
CLA – Continuous Learning Assessment

SEMESTER - I

Course Code	ULT24AE1J	Course Title	Tamil - I	Category	A	Ability Enhancement Course	L	T	P	C
							2	0	2	3

Course Offering Department	Tamil	Pre-requisite Courses	Nil	Co-requisite Courses	Nil	Progressive Courses	Nil	Data Book / Codes/Standards	Nil

CLR	The purpose of learning this course is to:
CLR-1	மரபிலிருந்து மாற்றம் பெற்ற புதுக்கவிதை மரபின் சிந்தனைகளை அறியச்செய்தல்
CLR-2	நவீன கவிதையின் வழி மனித வாழ்வியல் விழுமியங்களைத் தெரியச் செய்தல்
CLR-3	சிற்றிலக்கியங்கள், காப்பியங்கள்கற்பிக்கும் தமிழ்ச் சமூகத்தின் வாழ்வியலை அறியச் செய்தல்
CLR-4	நவீன தமிழ் இலக்கிய வளர்ச்சி வரலாற்றைப் புரியச் செய்தல்
CLR-5	மொழிப்பயிற்சி வழி மொழியின் பல்வேறு நுட்பங்களைத் தெரியச்செய்தல்

CLO	At the end of this course, learners will be able to:	Depth				Attainment			Programme Learning Outcomes									
		Conceive	Design	Implement	Operate	Bloom's Level of Thinking	Expected Proficiency (%)	Expected Attainment (%)	Problem Solving, Critical Thinking, Creativity Solving	Communication Skills, Collaborating Skills	Independent Thinking, Analytical Reasoning, Learning to Learn ,Research Skills	Leadership Qualities, Professionalism, Autonomy, Accountability	Digital Technology Skills	Value Inculcation, Multicultural inclusivity	Environmental Action, Community Engagement	Entrepreneurial Risk Taking	PSO-1	PSO-2
		1	2	3	4	1	2	3	1	2	3	4	5	6	7	8	9	10
CLO-1	புதுக்கவிதை உருவாக்கித்தந்த புதிய சிந்தனைக்களங்களை அறிந்து கொள்ளுதல்	✓	✓	-	-	2	75	60	3	-	3	-	-	-	-	3	-	-
CLO-2	நவீன கவிதைகள் வழி மாற்றம் பெற்று வரும் மானுடவிழுமியங்களைத் தெரிந்துகொள்ளுதல்	✓	✓	✓	-	2	80	70	-	-		2		3	3	-	-	-
CLO-3	தமிழ்ச்சமூகத்தின்இடைக்காலவாழ்வியல்முறைகளைஉணர்ந்துகொள்ளுதல்	✓	✓	✓	✓	2	70	65	3	-	3	-		2	-	-	-	-
CLO-4	நவீனஇலக்கியவரலாறுவழிதமிழ்க்கல்விவரலாறு, சமூகவரலாறுபெற்றவளர்ச்சிநிலைகளைத்தெரிந்துகொள்ளுதல்	✓	✓	✓	✓	2	70	70	-	3	-	-	1	2	-	-	-	-
CLO-5	மொழியின்நுட்பங்களைத்தெரிந்துமொழிஆளுமையோடுசெயல்படும்திறன்பெறுதல்	✓	✓	✓	✓	3	80	70	3	3	-	2	-	-	-	-	-	-

Sessions	CLO - 1	CLO - 2	CLO - 3	CLO – 4	CLO – 5
	12	12	12	12	12
SLO-1	தமிழ்க்கவிதைமரபு	நவீனகவிதைதோற்றம், வரலாறு	தமிழரின்வீரமரபு - போர்விழுமியங்கள்	சிற்றிலக்கியத்தோற்றம் – வகைமை	தமிழ்உரைநடைமரபு – உ·வே·சா· வின்பங்களிப்பு
SLO-2	புதுக்கவிதைஉருவாக்கம்,புதுக்கவிதைவளர்ச்சிநெறிகள்	நவீனகவிதைகளில்செல்நெறிகள்	பரணிஅறிமுகம்பரணி இலக்கியங்கள்	பிள்ளைத்தமிழ் - உலா - தூது	உ·வே· சா· வின்ராஜவைத்தியம்
SLO-3	பாரதியார்பன்முகஆளுமைத்திறன்	கவிதைமொழி - நவீனகவிஆளுமைகள்	தலைவனின்வீரம் - கலிங்கத்துப்பரணி 477, 490	புதுக்கவிதையின்தோற்றமும்மொழியும்	நாட்டுப்புறமரபில்சிறுதெய்வவழிபாடு
SLO-4	பாரததேசம்பாரததேசத்தின்வளம்	கவிதையில்நாட்டுப்புறவடிவம்	தமிழ்இலக்கியமரபில் தூதுஇலக்கியங்கள்	புதுக்கவிதையில்சமூகம் - புதுக்கவிதையும்இதழ்களும்	கழனியூரனின்பொன்காத்தஐயனார்
SLO-5	வெள்ளிப்பனிமலையின்மீதுலவுவோம்…	பெண்களின்கல்விநிலை -இளம்பிறை – அம்மா	தமிழின்பெருமை – தமிழ்விடுதூது (184 – 186)	மணிக்கொடிஇதழ்,எழுத்துஇதழ்,வானம்பாடிஇதழ்	பிழைநீக்கிஎழுதும்நுட்பங்கள்
SLO-6	20 ஆம்நூற்றாண்டுக்கவிதைமரபில்பாரதிதாசன்	ஆண்பெண்சமத்துவமும்ப·கல்பனா – கீறல்விழுந்தமாலைக்காலங்கள்	செய்யுள்மரபில்கலம்பகஇலக்கியங்கள்	சிறுகதைதோற்றம்– சிறுகதைவளர்ச்சி	எழுத்துப்பிழை – ந - ண - னல,ள,ழ, ர, றவேறுபாடுஅறிதல்
SLO-7	பாரதிதாசன் - அழகின்சிரிப்பு ஆல் - ஆயிரம்கிளைகள்கொண்டஅடிமரம்	விளிம்புநிலைவாழ்வியல்: திருநர்களும்சாதனைகளும்	கையறுநிலை – நந்திக்கலம்பகம் - வானுறுமதியை (110)	சிறுகதைவரலாறு - சிறுகதைஆசிரியர்கள்	தொடர்பிழைஒருமைபன்மைவேறுபாடு
SLO-8	ஆல் - ஆயிரம்கிளைகள்கொண்டஅடிமரம்	திருநங்கைகுணவதி - சமூகப்பார்வை	தமிழ்இலக்கியமரபில் குறவஞ்சிஇலக்கியங்கள்	இதழ்களும்சிறுகதையும்	பிறமொழிச்சொற்களைநீக்கிஎழுதுதல், ஷ,ஜ,ஸ,ஹமாற்றொலிகள்
SLO-9	வானம்பாடிக்கவிஞர்களும்மு·மேத்தாவும்	புலம்பெயர்வாழ்வியல் - வலியும்நம்பிக்கையும்	குற்றாலக்குறவஞ்சி – ஆடுமரவீனுமணி (3)	புதினம்தோற்றம் - புதினம்வளர்ச்சிவரலாறு	தமிழில்சொல்வகைகள்சொல்லும்பயன்பாடும்
SLO-10	மனிதநேயம் - மு·மேத்தாவின் மனிதனைத்தேடி	ஸர்மிளாஸெய்யித் – புராதனஊர்	காப்பியஇலக்கணம் - காப்பியவகைமைகள்	புதினத்தின்வகைமைபுதினஆசிரியர்கள்	பெயர்ச்சொற்கள்பெயர்ச்சொற்களும்வகைகளும்

SLO -11	தமிழ்க்கவிதையில்சுற்றுச்சூழலியல்	காலந்தோறும்கவிதை வடிவில்மாற்றங்கள்· ஹைக்கூ – மு·முருகேஷ்	சிலப்பதிகாரம் – அறிமுகம் கட்டுரைக்காதை	தமிழ்இலக்கியத்தில்உரைநடைக்கூறுகள் - உரைநடையின்தோற்றம்	வினைச்சொற்கள்அறிதல்
SLO -12	இயற்கையும்சமத்துவமும் பழனிபாரதியின்காடு	லிமரைக்கூ – ஈரோடுதமிழன்பன்சென்ரியூ – மாமதயானை	ஊழ்வினை– கோவலனின்முற்பிறப்புவரலாறு	தமிழில்உரைநடைவளர்த்தஅறிஞர்கள்	தமிழில்பெயரடை, வினையடைஅறிதல்

Resources			
1	முல்லைக்காடு, தொகுப்பும்பதிப்பும் - தமிழ்த்துறைஆசிரியர்கள், எஸ்·ஆர்·எம்· அறிவியல்மற்றும்தொழில்நுட்பக்கல்விநிறுவனம், காட்டாங்குளத்தூர், 603203, 2023	4	வல்லிக்கண்ணன், புதுக்கவிதைதோற்றமும்வளர்ச்சியும், ஆழிபதிப்பகம், சென்னை, 2018
2	கா· சிவத்தம்பி, தமிழில்சிறுகதைதோற்றமும்வளர்ச்சியும், என்·சி·பி·எச்·, சென்னை, 2013	5	மு·வரதராசன், தமிழ்இலக்கியவரலாறு, சாகித்தியஅக்காதெமி, 1972.
3	மதுரைதமிழ்இலக்கியமின்தொகுப்புத்திட்டம்	6	தமிழ்இணையக்கல்விக்கழகம்

Assessment										
Bloom's Level of Thinking		Continuous Learning Assessment (CLA) (50% weightage)								Final Assessment (50% weightage)
		CLA – 1		CLA – 2		CLA – 3		CLA – 4 *		
		(10 %)		(10 %)		(20 %)		(10%)		
		Theory (%)	Practice (%)	Theory (%)	Practice (%)	Theory (%)	Practice (%)	Theory (%)	Practice (%)	Theory (%)
1	Remember	15	15	15	15	10	10	10	10	15
2	Understand	15	15	15	15	10	10	10	10	15
3	Apply	20	25	25	20	25	25	25	25	25
4	Analyze	20	25	25	20	25	25	25	25	25
5	Evaluate	15	10	10	15	15	15	15	15	10
6	Create	15	10	10	15	15	15	15	15	10
	Total (%)	100	100	100	100	100	100	100	100	100

Strategies					
Technology		Pedagogy / Andragogy		Sustainable Development	
Simulations		Clarification/Pauses	✓	Good Health & Well Being	✓
Presentation Tools	✓	Group Discussion	✓	Quality Education	✓
Learning Management System	✓	Hands-on Practice	✓	Gender Equality	✓
		Debate	✓		
		Interactive Lecture	✓		
		Brainstorming	✓		

* The evaluation can be done on one or more parameters that include, (i) Seminars, (ii) Mini-Project, (iii) Case-Studies, (iv) MOOC Certification, (v) Publication of Article, (vi) Presentation of Research Work in Conferences, (vii) Assignments

Course Designers					
Professional Experts		Higher Institution Experts		Internal Experts	
1	Dr. P.R.Subramanian, Director, Mozhi Trust, Thiruvanmiyur, Chennai – 600 041.	1	Dr. V. Dhanalakshmi, Associate Professor, Subramania Bharathi School of Tamil Language & Literaturel, Pondicherry University, Pondicherry	1	Dr. B.Jaiganesh, Associate Professor & Head, Dept. of Tamil, FSH, SRMIST, KTR.
				2	Dr. R. Ravi, Assistant Professor and Head, Dept. of Tamil, FSH, SRMIST, VDP.
				3	Mr. G. Ganesh, Assistant Professor, Dept. of Tamil, FSH, SRMIST, RMP.
				4	Dr. T.R.Hebzibah beulah Suganthi,Assistant Professor, Dept. of Tamil, FSH, SRMIST, KTR.
				5	Dr. S.Saraswathy, Assistant Professor,Dept. of Tamil, FSH, SRMIST, KTR.

Course Code	ULH24AE1J	Course Title	Hindi – I	Category	A	Ability Enhancement Course	L	T	P	C
							2	0	2	3

Course Offering Department	Hindi	Pre-requisite Courses	Nil	Co-requisite Courses	Nil	Progressive Courses	Nil	Data Book / Codes/Standards	Nil

CLR	The purpose of learning this course is to:	Depth				Attainment			Programme Learning Outcomes									
		1	2	3	4	1	2	3	1	2	3	4	5	6	7	8	9	10
		Conceive	Design	Implement	Operate	Bloom's Level of Thinking	Expected Proficiency (%)	Expected Attainment (%)	Problem Solving, Critical Thinking, Creativity Solving	Communication Skills, Collaborating Skills	Independent Thinking, Analytical Reasoning, Learning to Learn, Research	Leadership Qualities, Professionalism, Autonomy, Accountability	Digital Technology Skills	Value Inculcation, Multicultural Inclusivity	Environmental Action, Community Engagement	Entrepreneurial Risk Taking	PSO-1	PSO-2
CLR-1	To Communicate in Hindi without any inhibition																	
CLR-2	To appreciate the Hindi language in its various forms																	
CLR-3	To analyze the different writing styles																	
CLR-4	To display moral and social values in the field of social Responsibility and Integrity																	
CLR-5	To be willing listeners and Translators-where need be																	

CLO	At the end of this course, learners will be able to:																	
CLO-1	To Understand the Philosophy of life and living through Stories	✓	✓	-	-	2	85	75	3	2	3	-	-	2	-	-	-	-
CLO-2	To Examine Travelogue writing and Sketch	✓	✓	✓	-	2	85	75	3	-	2	-	3	-	3	-	-	-
CLO-3	To Identify Irony and essay - based writing	✓	✓	✓	✓	3	85	75	-	3	-	3	3	2		-	-	-
CLO-4	Evaluate the various social issues depicted in the prose	✓	✓	✓	✓	3	85	75	2	-	2	3	-		2	-	-	-
CLO-5	To Understand the fundamental principal of Translation	✓	✓	✓	✓	3	85	75	-	3	-	3	3	2		-	-	-

Session	CLO – 1	CLO - 2	CLO – 3	CLO - 4	CLO - 5
	12	12	12	12	12
SLO-1	KAHANI KI AVDHARNA	REKHACHITRA & YATRAVITRANT	NIBANDH	NATAK	ANUVAD& PARIBHASHIK SHABDAVALI
SLO-2	SWARUP AUR PARIBHASHA	AVDHARNA EVM SWAROOP	NIBANDH KI AVDHARNA EVM SAWROOP	AVDHARNA EVM SAWROOP	ARTH EVM PARIBHASHA
SLO-3	KAHANI KE TATVA EVM MAHATWA	MAHATVA AUR UDDESHYA	MAHATVA EVM UDDESHYA	TATWA EVM PRAKAR	SWARUP EVM PRAKAR
SLO-4	PARIKSHA- PREMCHAND	GESHA REKHACHITRA	KUTAJ- NIBANDH HAJARI PRASHAD DIVEDI	UDDESHYA	MAHATVA
SLO-5	VISLESHAN	PATH KA VISHLESHAN	LEKHIAK PARICHAY	NATAK KA MAHATVA	UDDESHYA
SLO-6	UDDESHYA	GURU SHISHYA KA SAMBANDH	SHANGHARSHIL JEEVAN	RANGMANCH KA PARICHAY	ANUVAD KA PRAYOJAN EVM PRAYOG
SLO-7	MALBE KA MALIK- MOHAN RAKESH	THELE PAR HIMALAY (YATRAVITRANT)	PATH KA MAHATVA	LEKHAK PARICHAY	SHROT EVM LAKSHYA BHASHA KA GYAN

SLO-8	LEKHAK PARICHAY	YATRAVITRANT KA MAHATVA	BHOLARAM KA JEEV-(VYANGYA) HARISHANKAR PARSHAI	NATAK KA VISLESHAN	ANUVAD KA DAYITVA
SLO-9	BATWARE KA YATHARTH VARNAN	YATRA KA YATHARTH CHITRAN	VYANGYA KI AVADHARNA	LALCH KA DUSHPARINAM	PARIBHASHIK SHABDAVALI
SLO-10	TATKALIN PARISHTHITI KA VARNAN	PATH KA VISLESHAN	PATH KA VIHLESHAN	GURU SHISHYA SAMBANDH	TAKANIKI SHABDAVALI KA MHATVA
SLO-11	KAHANI KA VISHLESHAN	HIMALAY KA LOK JEEVAN	SARKARI TANTRA KA KHOKHLA RUP	MAHATTAKANKSHI KA DUSHPARINAM	VIVIDH PRAYOG
SLO-12	KAHANI KA UDDESHYA	HIMALAY KA VARNANA	SANVEDANSHIL BHAVANA	TATKALIN SAMAJIK VYAVASTHA KI CHARCHA	SHABDAVALI KI AVSHYAKTA

Resources			
1	**Samanya Hindi, Srijonlok Publication, 2023, New Delhi**	4	Bhakti Andolan Aur Surdas Ka Kavya – Manager Pandey
2	Kabir – Hazari Prasad Dwedi	5	Bihari – Vishvnath Prasad Mishr
3	Surdas – Ram Chandra Shukl	6	Aadhunik Vigyapan Aur Jansampark – Taresh Bhatia

Assessment

Bloom`s Level of Thinking		Continuous Learning Assessment (CLA) (50% weightage)								Final Assessment (50 % weightage)
		CLA – 1		CLA – 2		CLA – 3		CLA – 4 *		
		(10 %)		(10 %)		(20 %)		(10%)		
		Theory (%)	Practice (%)	Theory (%)	Practice (%)	Theory (%)	Practice (%)	Theory (%)	Practice (%)	Theory (%)
1	Remember	15	15	15	15	10	10	10	10	15
2	Understand	15	15	15	15	10	10	10	10	15
3	Apply	20	25	25	20	25	25	25	25	25
4	Analyze	20	25	25	20	25	25	25	25	25
5	Evaluate	15	10	10	15	15	15	15	15	10
6	Create	15	10	10	15	15	15	15	15	10
Total (%)		100	100	100	100	100	100	100	100	100

Strategies

Technology		Pedagogy / Andragogy		Sustainable Development	
Simulations		Clarification/Pauses	✓	Good Health & Well Being	✓
Presentation Tools	✓	Group Discussion	✓	Quality Education	✓
Learning Management System	✓	Hands-on Practice	✓	Gender Equality	✓
		Debate	✓		
		Interactive Lecture	✓		
		Brainstorming	✓		

* The evaluation can be done on one or more parameters that include, (i) Seminars, (ii) Mini-Project, (iii) Case-Studies, (iv) MOOC Certification, (v) Publication of Article, (vi) Presentation of Research Work in Conferences, (vii) Assignments

Designers					
Professional Experts		Higher Institution Experts		Internal Experts	
1	Ms. Reetha Govindan, Senior Manager (Rajbhasha)	1	Dr. S. Padmapriya, Professor and Head, Pondichery University, Kalapet, Puducherry - 605014	1	Dr. S Preeti. Associate Professor, SRMIST
2	Mr. Vipin Kumar Jha, Senior Translation Officer (ALUMNI)			2	Dr. Md. Shwahidul Islam, Assistant Professor, SRMIST
				3	Dr. S. Razia Begum, Assistant Professor, SRMIST
				4	Dr. Nisha Murlidharan Assistant Professor, SRMIST

Course Code	ULF24AE1J	Course Title	French – I	Category	A	Ability Enhancement Course	L	T	P	C
							2	0	2	3

Course Offering Department	French	Pre-requisite Courses	Nil	Co-requisite Courses	Nil	Progressive Courses	Nil	Data Book / Codes/Standards	Nil

CLR	The purpose of learning this course is to:	Depth				Attainment			Programme Learning Outcomes									
		1	2	3	4	1	2	3	1	2	3	4	5	6	7	8	9	10
CLR-1	Extend and expand their savoir-faire through the acquisition of current scenario	Conceive	Design	Implement	Operate	Bloom's Level of Thinking	Expected Proficiency (%)	Expected Attainment (%)	Problem Solving, Critical Thinking, Creativity Solving	Communication Skills, Collaborating Skills	Independent Thinking, Analytical Reasoning, Learning to Learn ,Research Skills	Leadership Qualities, Professionalism, Autonomy, Accountability	Digital Technology Skills	Value Inculcation, Multicultural inclusivity	Environmental Action, Community Engagement	Entrepreneurial Risk Taking	PSO-1	PSO-2
CLR-2	Enable the students to overcome the fear of speaking a foreign language and take position as a foreigner speaking French																	
CLR-3	Make them learn the basic rules of French Grammar.																	
CLR-4	Develop strategies of comprehension of texts of different origin																	
CLR-5	Strengthen the language of the students both in oral and written																	
CLO	At the end of this course, learners will be able to:																	
CLO-1	To acquire knowledge about French language	✓	✓	-	-	2	85	75	3	2	3	-	-	2	-	-	-	-
CLO-2	To strengthen the knowledge on concept, culture, civilization, and translation of French	✓	✓	✓	-	2	85	75	3		2	-	3	-	3	-	-	-
CLO-3	To develop content using the features in French language	✓	✓	✓	✓	3	85	75	-	3	-	3	3	2	-	-	-	-
CLO-4	To interpret the French language into other language	✓	✓	✓	✓	3	85	75	2		2	3	-	-	2	-	-	-
CLO-5	To improve the communication, intercultural elements in French language	✓	✓	✓	✓	3	85	75	-	3	-	3	3	2	-	-	-	-

Session	CLO - 1	CLO - 2	CLO – 3	CLO - 4	CLO - 5
	12	12	12	12	12
SLO-1	Contacts, Emma la championne	Les verbes du premier groupe	Qu'est-ce qu'ils font?	Portraits	Les verbes du deuxième groupe –
SLO-2	Les nombres à partir de 31	La liaison	Où est mon sac	Un casting	Les pronoms personnels toniques
SLO-3	Les pays, les nationalités	Entrer en contact	Quelques objets	Le Petit Spirou	Les verbes faire et lire
SLO-4	Les jours de la semaine, Les jours	Présenter et se présenter	Les professions	L'aspect physique	Les Sons
SLO-5	Les mois de l'année, Les animaux domestiques	Demander et dire la date	La formation du féminin (2)	Le caractère	Décrire l'aspect physique
SLO-6	La famille (1)	Une rencontre.	Qu'est-ce que c'est?	les états d'âme	Demander et dire l'heure
SLO-7	La formation du féminin (1)	Contacts	C'est / Il est (1)	Les prépositions de lieu (1)	Elle est comment?
SLO-8	Les adjectifs possessifs	Emma la Championne	La phrase négative (1)	La famille (2)	Portraits

SLO-9	La phrase interrogative	Mots et expressions	Les verbes aller et venir	La formation du féminin	Mots et Expressions
SLO-10	Les nombres	Grammaire	Les formules de politesse	La formation du pluriel (2)	Grammaire.
SLO-11	Intonation et est-ce que	Communication	C'est qui?	Il y a	Communication
SLO-12	Les exemples	Les verbes du ER –groupe	Mots et Expressions	Les articles contractés	Les concepts

Resources			
1	''La Nouvelle Génération-AI'' Méthode de français, Marie-Noëlle COCTON, P. DAUDA, L. GIACHINO, C. BARACCO, Les éditions Didier, Paris, 2018.	4	https://www.elearningfrench.com/learn-french-grammar-online-free.html
2	Cahier d'activités avec deux discs compacts.	5	https://www.lawlessfrench.com/grammar
3	https://www.fluentu.com/blog/french/french-grammar	6	https://blog.gymglish.com/2022/12/15/basic-french-grammar

Assessment

Bloom`s Level of Thinking		Continuous Learning Assessment (CLA) (50% weightage)								Final Assessment (50 % weightage)
		CLA – 1		CLA – 2		CLA – 3		CLA – 4*		
		(10 %)		(10 %)		(20 %)		(10%)		
		Theory (%)	Practice (%)	Theory (%)	Practice (%)	Theory (%)	Practice (%)	Theory (%)	Practice (%)	Theory (%)
1	Remember	15	15	15	15	10	10	10	10	15
2	Understand	15	15	15	15	10	10	10	10	15
3	Apply	20	25	25	20	25	25	25	25	25
4	Analyze	20	25	25	20	25	25	25	25	25
5	Evaluate	15	10	10	15	15	15	15	15	10
6	Create	15	10	10	15	15	15	15	15	10
	Total (%)	100	100	100	100	100	100	100	100	100

Strategies

Technology		Pedagogy / Andragogy		Sustainable Development	
Simulations		Clarification/Pauses	✓	Good Health & Well Being	✓
Presentation Tools	✓	Group Discussion	✓	Quality Education	✓
Learning Management System	✓	Hands-on Practice	✓	Gender Equality	✓
		Debate	✓		
		Interactive Lecture	✓		
		Brainstorming	✓		

* The evaluation can be done on one or more parameters that include, (i) Seminars, (ii) Mini-Project, (iii) Case-Studies, (iv) MOOC Certification, (v) Publication of Article, (vi) Presentation of Research Work in Conferences, (vii) Assignments

Designers					
Professional Experts		Higher Institution Experts		Internal Experts	
1	Mr. Kavaskar Danasegarane, Language Specialist, Process Expert Maersk Global Service Center Pvt. Ltd	1	Dr. C Thirumurugan, Professor, Department of French, Pondicherry University	1	Mr. Kumaravel K. Assistant Professor and Head, SRMIST
2	Mr. Shrivathsan S, Journalist, Senior Sports Reporter/Sub-Editor, Times of India, Chennai			2	Ms. Abigail A, Assistant Professor, SRMIST
				3	Mrs. M. Mahalakshmi, Assistant Professor, SRMIST

Course Code	ULE24AE1J	Course Title	English	Category	A	ABILITY ENHANCEMENT COURSE	L	T	P	C
							2	0	2	3

Course Offering Department	English	Pre-requisite Courses	Nil	Co-requisite Courses	Nil	Progressive Courses	Nil	Data Book / Codes/Standards	Nil

CLR	The purpose of learning this course is to:
CLR-1	Develop an understanding and sensibility of human consciousness through gender inclusive curriculum
CLR-2	Enhance the abilities of deeper understanding to stay with integrity with the fellow human beings
CLR-3	Develop the overall language competency of the learner
CLR-4	Develop proficient language skills
CLR-5	Learn to express the thoughts clearly, develop logical arguments and enhance the overall communication skills.
CLR-1	Develop an understanding and sensibility of human consciousness through gender inclusive curriculum

CLO	At the end of this course, learners will be able to:	Depth				Attainment			Programme Learning Outcomes									
		1	2	3	4	1	2	3	1	2	3	4	5	6	7	8	9	10
		Conceive	Design	Implement	Operate	Bloom's Level of Thinking	Expected Proficiency (%)	Expected Attainment (%)	Problem Solving, Critical Thinking, Creativity Solving	Communication Skills, Collaborating Skills	Independent Thinking, Analytical Reasoning, Learning to Learn ,Research Skills	Qualities, Professionalism, Autonomy, Accountability	Digital Technology Skills	Value Inculcation, Multicultural inclusivity	Environmental Action, Community Engagement	Entrepreneurial Risk Taking	Cultivating Critical Thinkers and Creative Communicators	Advancing Knowledge and Scholarship in Language
CLO-1	Analyze different literary texts to identify the representation of issues related to gender, and class	✓	✓	-	-	2	85	75	3	3	3	3	2	1	-	3	3	3
CLO-2	Apply critical thinking skills to analyze and respond to academic texts.	✓	✓	✓	-	2	85	75	3	2	2	3	2	1	-	-	3	3
CLO-3	Critically evaluate and discuss contemporary issues through online articles.	✓	✓	✓	✓	3	85	75	3	2	2	3	2	1	-	3	3	3
CLO-4	Refine their general writing skills	✓	✓	✓	✓	3	85	75	3	3	3	3	2	1	-	-	3	3
CLO-5	Improve their language application skills	✓	✓	✓	✓	3	85	75	3	3	3	3	2	1	-	3	3	3

Session	CLO-1	CLO-2	CLO-3	CLO-4	CLO-5
	POETRY	**SHORT STORIES**	**LEARNING ABOUT WRITING**	**LEARNING ABOUT SPEAKING**	**REFLECTION OF THE LANGUAGE LEARNING**
	12	**12**	**12**	**12**	**12**
SLO-1	Introduction to the poet- Sukirtharani- Reading and recitation of the poem –Debt Analysis and Critical interpretation of the poem.	Introduction to the short story writer Katherine Mansfield. Reading the story- The Doll's House Explaining the story through depiction of characters and representation of injustices.	Introduction to Creative Writing. Explaining the elements of creative writing. Grouping the Students belonging to States other than Tamilnadu	Building the discourse- The significance of conversation and the key elements of discourse- Art of conversation in digital and verbal discourse- Lee Mockobe's A Powerful Poem of what it means to be a Transgender. TEDX TALK- POEM RECITATION	Reflecting the learning. - Review writing Explaining the process of reviewing and the method of reviewing. Choosing the subject for reviewing.
SLO-2	Introduction to the poet Kalki Subramaniyam. Reading and recitation of the poem Phallus I cut. Analysis and Critical interpretation of the poem. Part-1	Analysis and critical interpretation of the short story Doll's House.	Stand-up comedy show - translate the audio content in English. (any regional language) Practice the writing activity -creative ways of engaging in translation.	Reflecting on the style and the tone of the poem. Practicing conversation	Choosing and planning the topic for students- group 1 and group 2
SLO-3	Analysis and Critical interpretation of the poem. Phallus I cut- Part-2	Class room activity- reviewing characters Group Discussion- social consciousness	Correction of errors- attempting to translate. Identifying equivalent terms to certain regional words - learn the art of translation.	Classroom- Speaking activity- reflection about the issues regarding gender expression and gender identity. Reviewing activity- group discussion- communicating effectively- importance	Choosing and planning the topic for students- group 3 and group 4
SLO-4	Introduction to the poet -Imtiaz Dharker. Reading and reciting the poem Purdah 1. Analysis and Critical interpretation of the poem- Purdah 1- part 1	Speaking activity- society and its portrayal in the short story- Magnifying and analyzing the characters from contemporary perspective	Introducing famous art works and the contexts of creation. Salvador Dali- The Face of War Pablo Picasso- Guernica Edward Munch- The Scream Pieter Bruegel- The Tower of Babel.	Introducing Content writing in Social Media- the importance of content writing.	Introducing the students to the review of the various works. Understand the review process how effectively a review of any work can be done.

			Understanding the art works- Part 1		
SLO-5	Analysis and Critical interpretation of the poem- Purdah 1- part 2	Introduction to the writer Haruki Murakami. Reading the Confessions of a Shinawaga monkey. Discussion and analysis of the Confessions of a Shinawaga monkey.	Understanding the art works- Part 2 creative and/ or thoughtful writing - contemporary themes of modern day	BLOG WRITING - Subtleties Of Workplace Inclusion: Mental Health And Queer Community- Salik Ansari. Reading the text- content in the blog by the students- Reading Activity	Reviewing -record -post in the social media pages of SRMIST
SLO-6	Reading and reciting the poem Purdah 2 Analysis and Critical interpretation of the poem- Purdah 2- part 1	Group discussion activity reflecting the understanding of the character Shinagwa monkey Speaking activity- review on life and existentialism and identity crisis	Course instructor guidance-Classroom activity for creative writing- discussion on generation of ideas discussion on working and reflection of ideas	Analysing the text- content in the blog by the students- Discussion Activity writer's conversation with the readers - the blog in other blog articles.. Practice blog writing	Thoughtful conversation with your team member post the same in the official social media page of SRMIST. Choosing the team based on the abilities that are comfortable to match the peer members
SLO-7	Analysis and Critical interpretation of the poem- Purdah 2- part 2	Introduction to Crystal Wilkinson Reading Endangered Species: Case 47401.	Elements of writing Incorporate the elements of story in story writing	Apprehending Life by reading the texts of influence- Chimamanda Ngozi Adiche's Notes on Grief- A BRIEF NOTE, We should all be Feminists- An Essay.	Choosing the topics for a thoughtful conversation Planning and preparation for the script of conversation with a team member
SLO-8	Introduction to the poet Arundathi Subramanian. Reading and reciting the poem- Home Student activity- recitation Analysis and Critical interpretation of the poem- Home	Discussion and analysis of Endangered Species: Case 47401.	Students -writing abilities- building stories- a visual treat of variety of pictures.	Class discussion- essay by the author -subjective depiction of life. Understand -subjective opinions -perspectives- Practising the task multiple times with all the students in the classroom.	Drafting , editing and revising the script of conversation and enacting the conversation with the team members Enactment -proper rehearsal -final performance -conversation- whole performance should be recorded. The recording should be posted in the official media page and social handles of SRMIST.
SLO-9	Recollection of study of the writing styles and intentions	Introduction to C.S Lakshmi also known as Ambai.	Practice -write stories - pictures given or shown.	Interposing opinions in famous interviews- FII Interviews: Tasveer Co-Founder And	work for this social post - reflect on their experience of learning communicative

	of the poets prescribed in the syllabus.	Reading the short story- In a Forest, A Deer.	Classroom activity- evaluation of writings ansd reflections for suggesting, correction and improvement	Filmmaker Rita Meher On The Seattle Legislation, Minority Rights And The Fight Against Oppression- INTERVIEW- Analayisng the text and discussing the aspects of an interview	English course and the testimonial has to be recorded and posted in the social media pages of SRMIST..
S-10	Group Discussion activity for students to reflect up on gender consciousness	Discussion and Analysis of In a Forest, A Deer.	A writing task to write a script is introduced in the classroom.	Students -enact as interviewer and interviewee and practice building the discourse.	Involving the students for the project work. Introducing what is project work and inculcating the interest - Giving instructions to do the project works -
SLO-11	Revision of the poems Debt and Phallus I cut, Purdah 1 and Purdah 2	Classroom activity- speaking about identity, power of women and contemporary issues and perspectives up on women like Thangam Atthai	Creative scripts inspiring from the dialogues of their favourite films by changing the scenario to their own wish according to their own whims and fancies. Creative writing -writing news reports. recreated with new characters, places, scenes, incidents.	Certain role plays like celebrity personalities, political personalities -conduct the interview and be the interviewer and interviewee. The art of conversation and the ability to build a discourse Reflecting on the points- Student reviewing activity- art of conversation in the text	Discussion of ideas and generation of creative ideas- Preparation for next semester. Assignment on any piece of creative writing (OR) Presentation- Mastering the art of Public Speaking. (OR) Project on compiling the real life influential events on gender inclusive issues and a presentation of the same. Interview Scripting /Blog writing.- Guidance
SLO-12	Revision of the poem Home. Creative activity for the students to reflect up on gender consciousness, influence of religion on women freedom.	Retrospecting the writing styles of the authors- Katherine Mansfield, Haruki Murakami, Crystal Wilkinson and Ambai. Overall Revision- The Doll's House, Confessions of a Shinawaga Monkey, Endangered Species: Case 47401 Classroom activity- speaking about racism in contemporary society- an attempt to understand the issues prevailing in the society from the perspectives of students	Watch debate shows - summarising the arguments Enhance - descriptive writing skill. Repetitive practice and continuous assessment - writing skiills-master the writing skill.	Reflecting on the points- Student reviewing activity- art of conversation in the text The evaluation and assesment of the conversation -constructive feedbacks to the students.	Reflection, Evaluation and Assessment of ideas- Students can opt any of the project from the given choice. Ready for the next semester- reflection of the learning through assignments practiced

Resources			
1	Horizon- English Text Book – Compiled and Edited by the Faculty of English Departement, FSH, SRMIST, 2023	5	The Art of Public Speaking by Stephen E. Lucas- 2019
2	The Creative Writing Coursebook: Forty Authors Share Advice and Exercises for Fiction and Poetry by Julia Bell and Paul Magrs- 2001	6	Talk Like TED: The 9 Public-Speaking Secrets of the World's Top Minds by Carmine Gallo – 2014
3	On Writing: A Memoir of the Craft by Stephen King 2000	7	The Anatomy of a Book Review: A Guide for College Students by Ronald J. Weber 1994
4	The Writing Life: Writers on How They Think and Work edited by Marie Arana -2003	8	How to Write a Simple Book Review: It's easier than you think! by Allyson R. Abbott 2013

Assessment

Bloom`s Level of Thinking		Continuous Learning Assessment (CLA) (50% weightage)								Final Assessment (50 % weightage)
		CLA – 1		CLA – 2		CLA – 3		CLA – 4*		
		(10 %)		(10 %)		(20 %)		(10%)		
		Theory (%)	Practice (%)	Theory (%)	Practice (%)	Theory (%)	Practice (%)	Theory (%)	Practice (%)	Theory (%)
1	Remember	15	15	15	15	10	10	10	10	15
2	Understand	15	15	15	15	10	10	10	10	15
3	Apply	20	25	25	20	25	25	25	25	25
4	Analyze	20	25	25	20	25	25	25	25	25
5	Evaluate	15	10	10	15	15	15	15	15	10
6	Create	15	10	10	15	15	15	15	15	10
Total (%)		100	100	100	100	100	100	100	100	100

Strategies

Technology		Pedagogy / Andragogy		Sustainable Development	
Simulations		Clarification/Pauses	✓	Good Health & Well Being	✓
Presentation Tools	✓	Group Discussion	✓	Quality Education	✓
Learning Management System	✓	Hands-on Practice	✓	Gender Equality	✓
		Debate	✓		
		Interactive Lecture	✓		
		Brainstorming	✓		

* The evaluation can be done on one or more parameters that include, (i) Seminars, (ii) Mini-Project, (iii) Case-Studies, (iv) MOOC Certification, (v) Publication of Article, (vi) Presentation of Research Work in Conferences, (vii) Assignments

Designers					
Professional Experts		Higher Institution Experts		Internal Experts	
1	Krishna Raj, Sutherland Technologies	1	Dr. J Mangayarkarasi Associate Professor and Head, Department of English, Ethiraj College for Women, Chennai	1	Dr. Pushpanjali Sampathkumar, Assistant Professor, Department of English, FSH, SRMIST
		2	Dr. K S Antonysamy Associate Professor and Head, Department of English, Loyola College, Chennai	2	Dr. Dr. Shanthichitra, Associate Professor, & Head, Department of English, FSH, SRMIST
				3	Dr Anchal Sharma, Professor and Head, Department of EFL SRMIST
				4	Dr T Sridevi, Assistant Professor, FSH, SRMIST
				5	Dr Shanmuga Priya, Assistant Professor SRMIST

Course Code	UCA24101J	Course Title	Digital Logic Design	Category	C	Core	L	T	P	C
							3	0	3	4

Course Offering Department	Computer Applications	Pre-requisite Courses	Nil	Co-requisite Courses	Nil	Progressive Courses	Nil	Data Book / Codes/Standards	Nil

CLR	The purpose of learning this course is to:	Depth				Attainment			Programme Learning Outcomes										
		1	2	3	4	1	2	3	1	2	3	4	5	6	7	8	9	10
		Conceive	Design	Implement	Operate	Bloom's Level of Thinking	Expected Proficiency (%)	Expected Attainment (%)	Problem Solving, Critical Thinking, Creativity	Communication Skills, Collaborating	Independent Thinking, Analytical	Leadership Qualities, Professionalism,	Digital Technology Skills	Value Inculcation, Multicultural inclusivity	Environmental Action, Community	Entrepreneurial Risk Taking	PSO-1	PSO-2
CLR-1	To learn the concepts of basics of Digital Logics																	
CLR-2	To impart in-depth knowledge of Logic Gates																	
CLR-3	Understand the principles of Boolean Algebra																	
CLR-4	Basic knowledge of Combinational Circuits and it Applications																	
CLR-5	Basic knowledge of sequential Circuits and it Applications																	
CLO	At the end of this course, learners will be able to:																	
CLO-1	Have a thorough Understanding of the Fundamentals of Digital Logic and it Fundamentals	✓	✓	-	-	2	85	75	3	-	-	1	-	3	-	2	2	1
CLO-2	Understand the concepts of logic gates and its uses	✓	✓	✓	-	2	85	75	3	2	1	2	2	3	-	1	2	1
CLO-3	Real time applications of Boolean Algebra	✓	✓	✓	✓	3	85	75	3	1	3	1	3	3	-	1	1	2
CLO-4	Design and implementation knowledge of Combinational Circuits	✓	✓	✓	✓	3	85	75	3	3	2	3	3	3	-	2	3	3
CLO-5	Design and implementation knowledge of Sequential Circuits	✓	✓	✓	✓	3	85	75	3	3	2	3	3	3	-	3	3	3

Sessions	CLO-1	CLO-2	CLO-3	CLO-4	CLO-5
	Number Systems	Boolean Expressions	Combinational Circuits	Sequential Circuits	Counters
	18	18	18	18	18
SLO-1	Number System and its types Base conversions	Minterms and Maxterms Sum of Products	Combinational Logic - Introduction Designing of a Logic Circuit Diagram	Sequential Circuit - Introduction Latches	Counters - Introduction A Basic Design Counter
SLO-2	Binary codes and its types Code conversions	Product of Sums methods Conversions of SOP to POS	Adders : Quarter, Half and Full Adders Subtractors: Half, Full Subtractors	Flip Flops - Introduction RS Flip Flop	Classification of Counters Asynchronous Counters
SLO-3	Basics of Logic Gates and Derived Gates Truth Tables	Simplifying Boolean Expressions using theorems Derivation of a Boolean Functions	Design of Adder Circuits Design of Subtractor Circuits	JK Flip Flop D Flip Flop	Synchronous Counters Syn Vs Asyn Counters
SLO-4-6	Lab1 : Verification of Basic Gates and Derived Gates	Lab 4: Verifications of Distributive Law	Lab 7: Half Adder and Full Adder	Lab 10: Implementation of DeMultiplexer	Lab 13: Ring Counters
SLO-7	Universality of NAND Gate Universality of NOR Gate	Karnaugh Map - Introduction and its uses Types of K-Map	Multiplexer Implementation of a Boolean expression using a Multiplexer	T - Flip Flop Edge Triggered	Ripple Counters MOD Counters
SLO-8	Duality of Logic Gate Representation Boolean Algebra - Introduction	Rules for constructing K-Map Two and Three Variable K-Map	De Multiplexer Encoder	Master Slave Flip Flop Registers Architecture	UP DOWN Counters Ring Counter
SLO-9	Logical Operations AND OR NOT Hierarchy of Logic Circuits	Four Variable K-Map Simplifying Boolean Expressions using K-Map	Decoder Decimal -to- BCD encoder	Shift Registers Register with parallel load	Shift Counters Decade
SLO-10-12	Lab2:NAND as Universal Gate NOR as Universal Gate	Lab 5-Simplifying Boolean Expressions using theorems	Lab 8:Half Subtractor and Full Subtractor	Lab 11: Implementation of Shift Registers and Serial Transfer	Lab 14: Implementation of DOWN Counter
SLO-13	Evaluating Logic Circuits Implementing Circuits from Boolean Expressions	Don't Care conditions Determination Prime Implicant Method	Parity Generator Parity Checker	Four-bit Serial in Serial Out Shift register Shift Registers Operations	Memory - Introduction Basic terms and ideas
SLO-14	Boolean Functions Duality Principle, Complements	Boolean Arithmetic - Introduction Binary Addition	Checksum Code Conversions	Serial-to-Parallel Shift Register Design of Serial to Parallel	Magnetic Memories Memory Addressing
SLO-15	Laws and Theorems Laws of Intersection, Union, Absorption, Involution, Demargan's Theorems	Binary Subtractions Various Representation of Binary Numbers	Programmable Array Logic Programmable Logic Array	Parallel-to-Serial Shift Register Design of Parallel to serial	Types of ROM Types of RAM
SLO-16-18	Lab 3:Laws of Boolean Expressions	Lab 6: Implementation of Binary Addition and Subtraction	Lab 9: Implementation of Multiplexer	Lab 12: Four Bit Binary Shift Counters	Lab 15: Implementation of DOWN Counter

Resources			
1	Ananthi Sheshasaayee,J.G. Sheshasaayee ,Digital Logic Fundamentals , Margham Publications, 2005	3	Leach D.P, Malvino A.P, Digital Principles & Applications, TM, 2002
2	Vijayendran.V, Digital Fundamentals,S.V. Publishers, 2003	4	Moris Mano.M, Digital Logic and Computer Design, Pearson, 2001

Assessment

Bloom`s Level of Thinking		Continuous Learning Assessment (CLA) (50% weightage)								Final Assessment (50 % weightage)	
		CLA – 1		CLA – 2		CLA – 3		CLA – 4*			
		(10 %)		(10 %)		(20 %)		(10%)			
		Theory (%)	Practice (%)	Theory (%)	Practice (%)	Theory (%)	Practice (%)	Theory (%)	Practice (%)	Theory (%)	Practice (%)
1	Remember	20	20	20	20	15	15	20	20	15	15
2	Understand	20	20	20	20	15	15	20	20	15	15
3	Apply	20	20	20	20	20	20	20	20	25	25
4	Analyze	20	20	20	20	20	20	20	20	25	25
5	Evaluate	10	10	10	10	15	15	10	10	10	10
6	Create	10	10	10	10	15	15	10	10	10	10
	Total (%)	100	100	100	100	100	100	100	100	100	100

Strategies

Technology		Pedagogy / Andragogy		Sustainable Development	
Simulations		Clarification/Pauses	✓	Good Health & Well Being	✓
Presentation Tools	✓	Group Discussion	✓	Quality Education	✓
Learning Management System	✓	Hands-on Practice	✓	Gender Equality	✓
		Debate	✓		
		Interactive Lecture	✓		
		Brainstorming	✓		

* The evaluation can be done on one or more parameters that include, (i) Seminars, (ii) Mini-Project, (iii) Case-Studies, (iv) MOOC Certification, (v) Publication of Article, (vi) Presentation of Research Work in Conferences, (vii) Assignments

Designers

ProfessionalExperts		HigherInstitutionExperts		InternalExperts	
1	Mr.Jothi Periaswamy, Founder/Chief Data Scientist, DeepSphere AI, 2 Venture Drive, #13-26 Vision Exchange, Singapore, 608526	1	Dr.S.Gopinathan,Professor,UniversityofMadras,Chennai	1	Dr.V.Nisha , Assistant Professor, SRMIST, KTR Campus

Course Code	USA24102J	Course Title	Programming for Problem Solving	Category	C	Core	L	T	P	C
							3	0	3	4

Course Offering Department	Computer Applications	Pre-requisite Courses	Nil	Co-requisite Courses	Nil	Progressive Courses	Nil	Data Book / Codes/Standards	Nil

CLR	The purpose of learning this course is to:	Depth				Attainment			Programme Learning Outcomes										
CLR-1	Introduction to Programming Language	1	2	3	4	1	2	3	1	2	3	4	5	6	7	8	9	10	
CLR-2	Understanding basic element of programming language.																		
CLR-3	Use and implement data structures like arrays and structures to obtain solutions.																		
CLR-4	Customizing functions and procedures to encourage reusability																		
CLR-5	Establish interaction between stored files and the application code																		
CLO	At the end of this course, learners will be able to:	Conceive	Design	Implement	Operate	Bloom's Level of Thinking	Expected Proficiency (%)	Expected Attainment (%)	Problem Solving, Critical Thinking, Creativity	Communication Skills, Collaborating Skills	Independent Thinking, Analytical Reasoning, Learning to Learn, Research Skills	Leadership Qualities, Professionalism, Autonomy, Accountability	Digital Technology Skills	Value Inculcation, Multicultural inclusivity	Environmental Action, Community Engagement	Entrepreneurial Risk Taking	PSO-1	PSO-2	
CLO-1	Evolution of Programming Language	✓	✓	-	-	2	85	75	1	3	-	-	1	-	3	-	2	2	1
CLO-2	Choose operators, control structures to solve the problem optimally	✓	✓	✓	-	2	85	75	2	3	2	1	2	2	3	-	1	2	1
CLO-3	Analyze the problem thoroughly and choose the prebuilt functions/ customize functions to solve the problem	✓	✓	✓	✓	3	85	75	1	3	1	3	1	3	3	-	1	1	2
CLO-4	Able to use dynamic memory allocation concepts for problems that demand	✓	✓	✓	✓	3	85	75	3	3	3	2	3	3	3	-	2	3	3
CLO-5	Defend the need for files storage and the access privilege modes	✓	✓	✓	✓	3	85	75	3	3	3	2	3	3	3	-	3	3	3

Sessions	CLO-1	CLO-2	CLO-3	CLO-4	CLO-5
	Introduction to C	Operators & Control Structures	Arrays & Structures	Functions & Pointers	Files
	18	18	18	18	18
SLO-1	Evolution of Programming Languages Problem solving through programming	Arithmetic operators, Assignment operator, Increment and decrement operator, Comma, Arrow and Bitwise and sizeof operator Relational and logical Operators Character and Numbers: Manipulation	Understanding contiguous memory allocation Array : Advantages and Limitations	Formal and Actual Parameters Functions: Returning values	File Types: text and binary, File operations: basics File permissions and access privileges, Changing permissions

SLO-2	Writing algorithms/pseudo codes Drawing flowcharts	Expressions with pre / post increment operator Expression with conditional and assignment operators	String Basics String Declaration and Initialization	Advantages of using Functions Passing Array to Function	Writing contents to file , Reading file contents, Appending an existing file Difference: Append and write
SLO-3	Evolution of C language Program structure	Ternary operator L value and Rvalue in expression	Understanding String Functions: gets(), puts(), getchar(), putchar(), printf() String Functions: atoi, strlen, strcat, strcmp	Call by Value Call by Reference (An introduction on pointers shall be effective)	Writing contents to file, Reading file contents fscanf(),fprintf()
SLO-4-6	Lab 1: Basic Program	Lab 4: Operators and Expressions	Lab 7: Arrays : Multi-dimensional	Lab 10: Functions	Lab 13: File: reading and writing
SLO-7	Need for file header files Need for linkers and loaders	Operator precedence Type conversion	String Functions: sprint, sscanf, strrev, strcpy, strstr, strtok Need for tokenization	Nested functions Functions: advantages and limitations	fscanf(),fprintf(),fseek(),ftell(), fputc(),
SLO-8	Input and output statements: scanf,printf Identifiers, Variables and Scope and lifetime of variables,	Control Statements : Sequential, Branching, looping andJjump If, if-else, else if ladder	Need for user-defined data types Structures	Pointers and address operator sizeof Pointer Variable and Pointer Operator	fgetc(),fputs(),fgets() fputw(),fgetw(),
SLO-9	Keywords, Literals	Nested if, switch case for loop	Unions Accessing members of the structure	Pointer Declaration and dereferencing pointers void Pointers and sizeof void Pointers	feof(), remove(),ferror() End_of_file in file handling
SLO-10-12	Lab 2: Program using Input and Output Statements	Lab 5: Control Statements	Lab 8: Strings, structures and union	Lab 11: Pointers	Lab 14: File Handling fputw(),fgetw(), remove();
SLO-13	Expressions Single line and multiline comments	while loop do while	Accessing members of the structure Structures and arrays	Function and call by reference Functions and Returning array(use of pointers)	Processor Directives Predefined macros and macros
SLO-14	Data types classification: Basic data type, Derived data type, and User-defined data type	goto, break, continue, exit: Jump statements. Understanding jump statements with branch and iterative statements	Structure and arrays Nested structures	Structures and pointers :dynamic creation of data structures(list) Incrementing Pointers, Constant Pointers	conditional compilation Processor Directives

SLO-15	Constants and its types	Array Basic , Array Declaration, Initialization, manipulating one dimensional arrays with indices, Methods: sort, append, reverse, traverse, Manipulating two dimensional arrays with indices, Problems: matrix manipulations	Functions declaration and definition, Function prototypes, Defining and calling functions Prebuilt and user defined functions, Multiple functions, Recursion , recursive Functions, Scope of variables across functions	Pointers and strings, Function Pointers, Array of Function Pointers Null Pointers, Using sizeof(),malloc,calloc() File Handling, Open(),close()	#pragma Creating include and macros
SLO-16-18	Lab 3: Program using Operators	Lab 6: Arrays – One Dimensional	Lab 9: Functions	Lab 12: Pointers	Lab 15: Creating Macros

Resources

1	R. G. Dromey, "How to solve it by Computer", Pearson Education, ISBN 0-13-433995-9	3	Reema Thareja, "Python Programming: Using Problem Solving Approach", Oxford University Press;
2	The 'C' programming language by Kernighan and Ritchie, Prentice Hall	4	Stephen G. Krantz, "Problem Solving Techniques" , Universities Pres

Assessment

Bloom`s Level of Thinking		Continuous Learning Assessment (CLA) (50% weightage)								Final Assessment (50 % weightage)	
		CLA – 1		CLA – 2		CLA – 3		CLA – 4*			
		(10 %)		(10 %)		(20 %)		(10%)			
		Theory (%)	Practice (%)	Theory (%)	Practice (%)	Theory (%)	Practice (%)	Theory (%)	Practice (%)	Theory (%)	Practice (%)
1	Remember	20	20	20	20	15	10	20	20	20	20
2	Understand	20	20	20	20	15	10	20	20	20	20
3	Apply	20	20	20	20	20	25	20	20	20	20
4	Analyze	20	20	20	20	20	25	20	20	20	20
5	Evaluate	10	10	10	10	15	15	10	10	10	10
6	Create	10	10	10	10	15	15	10	10	10	10
	Total (%)	100	100	100	100	100	100	100	100	100	100

Strategies

Technology		Pedagogy / Andragogy		Sustainable Development	
Simulations		Clarification/Pauses	✓	Good Health & Well Being	✓
Presentation Tools	✓	Group Discussion	✓	Quality Education	✓
Learning Management System	✓	Hands-on Practice	✓	Gender Equality	✓
		Debate	✓		
		Interactive Lecture	✓		
		Brainstorming	✓		

* The evaluation can be done on one or more parameters that include, (i) Seminars, (ii) Mini-Project, (iii) Case-Studies, (iv) MOOC Certification, (v) Publication of Article, (vi) Presentation of Research Work in Conferences, (vii) Assignments

Designers					
Professional Experts		**Higher Institution Experts**		**Internal Experts**	
1	Mr.Jothi Periaswamy, Founder/Chief Data Scientist, DeepSphere AI, 2 Venture Drive, #13-26 Vision Exchange, Singapore, 608526	1	Dr.S.Gopinathan, Professor, University of Madras, Chennai	1	Dr.S.Usha, Assistant Professor, SRMIST, KTR Campus

Course Code	UMS24101T	Course Title	Discrete Mathematical Structures	Category	C	Core	L	T	P	C
							4	0	0	4

Course Offering Department	Mathematics and Statistics	Pre-requisite Courses	Nil	Co-requisite Courses	Nil	Progressive Courses	Nil	Data Book / Codes/Standards	Nil

CLR	The purpose of learning this course is to:
CLR-1	To provide a strong foundations in discrete mathematics
CLR-2	To apply mathematical techniques for solving real life problems
CLR-3	Apply Boolean algebra, truth table, logic gates, in computer science and communication.
CLR-4	To enable the use of logical, graphical and algebraic techniques wherever relevant.
CLR-5	Understanding of computer science through the applications of Discrete Mathematics

CLO	At the end of this course, learners will be able to:	Depth: Conceive	Design	Implement	Operate	Attainment: Bloom's Level of Thinking	Expected Proficiency (%)	Expected Attainment (%)	Programme Learning Outcomes: Problem Solving, Critical Thinking, Creativity Solving	Communication Skills, Collaborating Skills	Independent Thinking, Analytical Reasoning, Learning to Learn, Research Skills	Leadership Qualities, Professionalism, Autonomy, Accountability	Digital Technology Skills	Value Inculcation, Multicultural inclusivity	Environmental Action, Community Engagement	Entrepreneurial Risk Taking	PSO-1	PSO-2
CLO-1	Problem solving in sets and relations. Gaining knowledge, solving the simple problems using elementary concepts.	✓	✓	-	-	2	85	75	3	-	-	1	-	3	-	2	2	1
CLO-2	Understand the concepts of Graphs terminology Sub graphs, Acyclic, Euler path, Hamiltonian Path	✓	✓	✓	-	2	85	75	3	2	1	2	2	3	-	1	2	1
CLO-3	Logical knowledge through the Statements, connectives, arguments, validity of arguments and Normal forms using truth tables	✓	✓	✓	✓	3	85	75	3	1	3	1	3	3	-	1	1	2
CLO-4	Gain the knowledge about Trees , Labeled Trees, Binary trees ,Rooted Trees , Spanning Trees Minimal Spanning Trees	✓	✓	✓	✓	3	85	75	3	3	2	3	3	3	-	2	3	3
CLO-5	Apply the concepts of Boolean Algebra in real world problems related to Computer Science	✓	✓	✓	✓	3	85	75	3	3	2	3	3	3	-	3	3	3

Session	CLO-1	CLO-2	CLO-3	CLO-4	CLO-5
	Set Theory	Logics	Introduction to Graph Theory	Trees	Lattices and Boolean Algebra
	12	12	12	12	12
SLO-1	Introduction to Sets – simple examples.	Logic – Basic explanations	Graphs and Their Representation-Basic Terminology	Trees – Basic properties of tress	Partition of a set - Relation concepts
SLO-2	Properties of sets, Types of sets	Statements- simple compound	Drawings of Graphs – Special families of graph – Simple problems	Labeled trees	Matrix representation of relation – Hasse Diagrams - Lattices as posets

SLO-3	Venn diagram – Problems using Venn Diagram	Symbolic representation and Connectives explanations	Incidence graphs -Adjacency matrices – Vertex degree matrices	Undirected Trees – Binary trees	Definition of Lattices- Properties of Lattices - Problems on Lattices as posets
SLO-4	**Tutorial**	**Tutorial**	**Tutorial**	**Tutorial**	**Tutorial**
SLO-5	Relation definitions – Types of Relations	Problems using Truth Tables – logical equivalence	Isomorphism of Graphs – Sub graph	Rooted Trees and Branches –	Introduction to Boolean Algebra-basic definitions.
SLO-6	Problems on Relations	Tautological implications	Acyclic graph –Digraph – Simple problems	problems based on concepts	Problems using the postulates of Boolean Algebra
SLO-7	Reflexive-Symmetric-Transitive – basic Explanations	Arguments- validity of arguments and normal forms	Euler path and circuits	Spanning Trees - Minimal Spanning Trees	Expression of a Boolean function By Truth table method – Properties of Boolean Algebra
SLO-8	**Tutorial**	**Tutorial**	**Tutorial**	**Tutorial**	**Tutorial**
SLO-9	Functions-Types of functions – Comparison of Relations and Functions	Minterms and maxterms with examples	Eulerian cycles	Kruskal's Algorithm - Rooted Tree	Boolean function in canonical form by Truth table method.
SLO-10	Composite of two functions	Principal disjunctive normal form	Hamiltonian Path and Circuits.	Binary Tree and Simple Problems	DNF by Truth table method
SLO-11	Composite of three functions – Simple problems	Principal conjunctive normal form - Problems using Truth Tables	Hamiltonian Path and Circuits – problems using graph – simple problems	Expression of Trees and Simple Problems	CNF by Truth table method – Simple problems
SLO-12	Composite of three functions – Simple problems	Principal conjunctive normal form - Problems using Truth Tables	Simple problems	Expression of Trees and Simple Problems	CNF by Truth table method – Simple problems

Resources			
1	Discrete Mathematics with Graph Theory and Combinatorics by T.Veerajan, McGraw Hill Education(India) Pvt Limited, 2007	2	Dr. A. Singaravelu, Allied Mathematics, 7th edition, A. R. Publications, 2015.

Assessment						
Bloom`s Level of Thinking		Continuous Learning Assessment (CLA) (50% weightage)				Final Assessment (50 % weightage)
		CLA – 1	CLA – 2	CLA – 3	CLA – 4*	
		(10 %)	(10 %)	(20 %)	(10%)	
		Theory (%)	Theory (%)	Theory (%)	Theory (%)	Theory (%)
1	Remember	40	40	30	30	40
2	Understand	40	40	30	30	40
3	Apply	40	40	40	40	40
4	Analyze	40	40	40	40	40
5	Evaluate	20	20	30	30	20
6	Create	20	20	30	30	20
Total (%)		100	100	100	100	100

Strategies					
Technology		Pedagogy / Andragogy		Sustainable Development	
Simulations		Clarification/Pauses	✓	Good Health & Well Being	✓
Presentation Tools	✓	Group Discussion	✓	Quality Education	✓
Learning Management System	✓	Hands-on Practice	✓	Gender Equality	✓
		Debate	✓		
		Interactive Lecture	✓		
		Brainstorming	✓		

* The evaluation can be done on one or more parameters that include, (i) Seminars, (ii) Mini-Project, (iii) Case-Studies, (iv) MOOC Certification, (v) Publication of Article, (vi) Presentation of Research Work in Conferences, (vii) Assignments

Designers					
Professional Experts		Higher Institution Experts		Internal Experts	
1	Dr. D. Arivudai nambi, Anna University, Chennai	1	Dr. N.Viswanathan, , Presidency college , Chennai	1	Dr.L.Sivakami, **Assistant Professor, Department of Mathematics & Statistics, FSH, SRMIST, Kattankulathur**
				2	Dr.S.Lakshmipriya, Assistant Professor, **Department of Mathematics & Statistics, FSH, SRMIST, Kattankulathur**

Course Code	UCD24S01J	Course Title	Verbal Ability and Skill Development	Category	S	Skill Enhancement Courses	L	T	P	C
							1	0	2	2

Course Offering Department	Career Guidance	Pre-requisite Courses	Nil	Co-requisite Courses	Nil	Progressive Courses	Nil	Data Book / Codes/Standards	Nil

CLR	The purpose of learning this course is to:	Depth				Attainment			Programme Learning Outcomes											
		Conceive	Design	Implement	Operate	Bloom's Level of Thinking	Expected Proficiency (%)	Expected Attainment (%)	Problem Solving, Critical Thinking, Creativity Solving	Communication Skills, Collaborating Skills	Independent Thinking, Analytical Reasoning, Learning	Leadership Qualities, Professionalism, Autonomy,	Digital Technology Skills	Value Inculcation, Multicultural inclusivity	Environmental Action, Community Engagement	Entrepreneurial Risk Taking	PSO-1	PSO-2
CLR-1	Exposestudentstorightattitudinalandbehavioralaspectsandtobuildthesamethroughactivities																	
CLR-2	Developandnurtureinterpersonalskillsofthestudentsthroughindividualandgroupactivities.																	
CLR-3	Increase efficiency and leadership skills to improve team results.																	
CLR-4	Use the basic mechanics of Grammar.																	
CLO-5	Instill confidence in students and develop skills necessary to face the challenges of competitive exams and placements																	
CLO	At the end of this course, learners will be able to:																	
CLO-1	Re-engineer their attitude and understand its influence on behavior	✓	✓	-	-	2	85	75	2	3	2	2	-	1	2	3	-	-
CLO-2	Acquire inter-personal skills and be an effective goal-oriented team player	✓	✓	✓	-	2	85	75	3	3	2	3	-	1	2	1	-	-
CLO-3	Learn the importance of inner management and creativity	✓	✓	✓	✓	3	85	75	3	2	2	3	-	1	2	2	-	-
CLO-4	Understand the correct usage of grammar	✓	✓	✓	✓	3	85	75	3	-	3	-	3	1	1	-	-	-
CLO-5	Help the students succeed in competitive exams and placements	✓	✓	✓	✓	3	85	75	3	-	3	-	3	1	1	-	-	-

Session	CLO - 1	CLO - 2	CLO - 3	CLO - 4	CLO - 5
	9	9	9	9	9
SLO-1	Introduction to IKIGAI, IKIGAI – Key concepts	Networkingskills – relationship building, value exchange, active listening, friendliness and positivity, clear communication	Time management skills – ValueofTime, Pomodoro technique.	Basics of Grammar	Sentence Correction
SLO-2	Attitude, Attitude formation and Factors in fluencing Attitude	Negotiationskills – building rapport and problem-solving	WeeklyPlanner,Todolist,Prioritizingwork, Timemanagementactivity	Spotting Errors	Sentence completion (Grammar based)
SLO-3	SWOTAnalysis, individualSWOTAnalysis-SWOTAnalysis activity	EntrepreneurialSkills, Entrepreneurialknowledge, Focus,Investment,Risktolerance,Resilience,Ethics	Creative thinking skills – divergent thinking, Synthesis and collaboration, out-of -the -box thinking	Error spotting based on Parts of Speech	Sentence completion (Vocabulary based)
SLO-4	Presentation skills, Types of presentation, Structure of presentation, Delivery techniques	Creatingbrands–activity(posters,flyers,businesscards)	Creative thinking skillsActivity session	Errors how to avoid in Nouns & Pronouns	Cause and Effect - Introduction
SLO-5	Extempore Practice Session I	Stress Management - CausesofStressandItsImpact	Brainstorming,useofgroups andindividualbrainstorming techniquestopromoteideageneration	Common Errors: Subject - verb Agreement	Cause and Effect – Practise Session
SLO-6	Extempore Practice Session II	HowtoManageStressand distress, Understanding the circle of control, stress busters	Interculturalcommunication – beliefs,customsandattitudesofpeopleindifferent countries(US,UK,Japan,WestAsia,China,Russia), Socialandculturaletiquettes	Vocabulary - Synonyms - Antonyms - Phrasal verbs-	Theme detection – Introduction - Practice session
SLO-7	Interpersonal Skills, Emotional Intelligence	Conflict Management - Conflict in human relations – reasons, Approaches to conflict resolution	Communicationetiquettes, Telephoneetiquettes	One Word Substitution - Homophones - Homonyms	Critical Reasoning and Verbal deduction
SLO-8	ImportanceofTeamWork, TeamBuilding activity	Conflict resolutions – Case studies	Icebreaking, Designingicebreakergames	Words often confused	Types of Critical Reasoning- Tips and Tricks

SLO-9	Leadershipskills, Leadershipskills - based activity	Importance of decision making, Process of decision making, Practical ways of decision making, weighing positives and negatives	Resume writing skills	Idioms and Idiomatic Expressions – Introduction	Word Analogy - Types of Word analogy

Resources			
1	JeffButterfield,SoftSkillsforEveryone, CENGAGE,India,2015	5	ThomasAHarris,Iamok,youareok,Arrow,London,2012
2	Dr.K.Alex,SoftSkills,S. ChandPublishing&Company,India,2014	6	DanielColeman, EmotionalIntelligence,Bloomsbury,India,2016
3	CoveySean,Sevenhabits ofhighlyeffectiveteens,Simon&Schuster,NewYork,2014	7	Norman Lewis, Word Power Made Easy New Revised and Expanded Edition, Goyal publication, 2011
4	CarnegieDale,Howtowinfriendsandinfluencepeople,SimonandSchuster,NewYork,2016	8	Bhatnagar R P, English for Competitive Examinations, Trinity Press, 2016.

Assessment

Bloom`s Level of Thinking		Continuous Learning Assessment (CLA) (100% weightage)							
		CLA – 1		CLA – 2		CLA – 3		CLA – 4*	
		(20 %)		(20 %)		(30 %)		(30%)	
		Theory (%)	Practice (%)	Theory (%)	Practice (%)	Theory (%)	Practice (%)	Theory (%)	Practice (%)
1	Remember	20	20	15	15	20	20	20	20
2	Understand	20	20	15	15	20	20	20	20
3	Apply	15	15	15	15	15	15	20	20
4	Analyse	15	15	15	15	15	15	20	20
5	Evaluate	15	15	20	20	15	15	10	10
6	Create	15	15	20	20	15	15	10	10
Total (%)		100	100	100	100	100	100	100	100

Strategies

Technology		Pedagogy / Andragogy		Sustainable Development	
Simulations		Clarification/Pauses	✓	Good Health & Well Being	✓
Presentation Tools	✓	Group Discussion	✓	Quality Education	✓
Learning Management System	✓	Hands-on Practice	✓	Gender Equality	✓
		Debate	✓		
		Interactive Lecture	✓		
		Brainstorming	✓		

* The evaluation can be done on one or more parameters that include, (i) Seminars, (ii) Mini-Project, (iii) Case-Studies, (iv) MOOC Certification, (v) Publication of Article, (vi) Presentation of Research Work in Conferences, (vii) Assignments

Designers					
Professional Experts		Higher Institution Experts		Internal Experts	
1	Mr. P. Chockalingam, Senior Lead Software Engineer, Virtusa Consulting Services Private Ltd, DLF IT Park SEZ, Chennai – 600089 p.chockalingam1986@gmail.com -	1	Dr. G. Saravana Prabu, Asst. Professor, Department of English, Amrita Vishwa Vidhyapeetham, Coimbatore - 641112 g_saravanaprabu@cb.amrita.edu -	1	Dr.SathishK,HOD,DepartmentofCareerGuidanceCell,FSH,SRMIST hod.dcgc.ktr@srmist.edu.in
				2	Mrs.Deepalakshmi S, Assistant Professor, Department of Career Guidance Cell, FSH, SRMIST, deepalas@srmist.edu.in
				3	Dr. Sam Israel S, Assistant Professor, Department of Career Guidance Cell, FSH, SRMIST, samisras@srmist.edu.in

SEMESTER - II

Course Code	ULT24AE2J	Course Title	Tamil - II	Category	A	Ability Enhancement Course	L	T	P	C
							2	0	2	3

Course Offering Department	Tamil	Pre-requisite Courses	Nil	Co-requisite Courses	Nil	Progressive Courses	Nil	Data Book / Codes/Standards	Nil

CLR	The purpose of learning this course is to:
CLR-1	சங்கஇலக்கியங்கள்வழிதொன்மைஅக, புறவாழ்வியலைஅறியச்செய்தல்
CLR-2	தமிழ்ச்சமூகத்தின்அறவியல்குறித்துதெரியச்செய்தல்
CLR-3	பக்திஇலக்கியங்கள்போதித்தமனிதமாண்புகளைஉணரச்செய்தல்
CLR-4	பண்டைத்தமிழ்ச்சமூகத்தின்தொல்இலக்கியங்கள்வளர்ச்சிபெற்றவரலாற்றைப்புரியச்செய்தல்
CLR-5	சிறுகதைகள்சொல்லும்வாழ்வியல்நெறி, மொழியின்நுட்பங்கள்ஆகியவற்றைத்தெரியச்செய்தல்

CLO	At the end of this course, learners will be able to:	Depth				Attainment			Programme Learning Outcomes										
		Conceive	Design	Implement	Operate	Bloom's Level of Thinking	Expected Proficiency (%)	Expected Attainment (%)	Problem Solving, Critical Thinking, Creativity	Communication Skills, Collaborating Skills	Independent Thinking, Analytical Reasoning,	Leadership Qualities, Professionalism, Autonomy,	Digital Technology Skills	Value Inculcation, Multicultural inclusivity	Environmental Action, Community Engagement	Entrepreneurial Risk Taking	PSO-1	PSO-2
CLO-1	பண்டைத்தமிழ்ச்சமூகத்தின்அக, புறவாழ்வியல்இன்றையசமூகமேம்பாட்டிற்குவழிகாட்டிநிற்பதைஅறிந்துகொள்ளுதல்	✓	✓	-	-	2	75	60	-	3	3	-	-	-	2	-	-	-
CLO-2	தமிழ்ச்சமூகம்அறத்தைவலியுறுத்தியசமூகம்என்பதன்வழிமானுடஅறத்தைத்தெரிந்துகொள்ளுதல்	✓	✓	✓	-	2	80	70	2	-	3	-	-	3	-	-	-	-
CLO-3	பக்திஇலக்கியம்மூலம்இறைத்தந்துவங்களைஅறிந்துமானுடஒற்றுமைமேம்பாட்டைஅறிந்துகொள்ளுதல்	✓	✓	✓	✓	2	70	65	-	3	-	3	-	1	-	-	-	-
CLO-4	தொல்தமிழ்ச்சமூகம்இலக்கியம், அரசியல், அறம், பக்திஆகியவற்றில்தழைத்தோங்கியதைத்தெரிந்துகொள்ளுதல்	✓	✓	✓	✓	2	70	70	3	-	3	-	-	3	-	-	-	-
CLO-5	வாழ்வியலின்நெறிகளைச்சொல்லும்கதைகளைப்படைக்கும்திறனோடுமொழிஆளுமையையும்அறிந்து கொள்ளுதல்	✓	✓	✓	✓	3	80	70	3	-	-	2	-	-	-	3	-	-

Session	CLO – 1	CLO - 2	CLO - 3	CLO - 4	CLO – 5
	12	12	12	12	12
SLO-1	காலந்தோறும்தமிழ்அகத்திணைமரபு - உள்ளடக்கம்	சங்கமருவியகாலம்அறமும்வாழ்வியலும்	பல்லவர்காலஇலக்கியங்கள்	பண்டைக்காலத்தமிழகம்சங்ககாலமக்களின்வாழ்வியல்	தமிழ்ச்சிறுகதையும்தமிழ்ச்சமூகவாழ்வியலும்
SLO-2	எட்டுத்தொகைநூல்களும்பகுப்புமுறையும்	உலகப்பொதுமறை - திருக்குறள்கட்டமைப்பு	பக்தியும்தமிழும் - பக்திஇலக்கியத்தோற்றநிலை	முச்சங்கஅறிமுகமும் வரலாறும்	புதுமைப்பித்தன் - சங்குத்தேவனின்தர்மம்
SLO-3	ஐங்குறுநூறு – 375, 391	திருக்குறள்வான்சிறப்பு (2)	சைவசமயஇலக்கியங்கள் - சைவக்குரவர்நால்வர்	சங்கஇலக்கியப்பாடுபொருளும்வடிவமும்	ந.பிச்சமூர்த்தி – வேப்பமரம் - மரபும்நம்பிக்கைகளும்
SLO-4	குறுந்தொகை – 02, 03	திருக்குறள் – புலவிநுணுக்கம் (132) -	தேவாரம் – திருஞானசம்பந்தர் - 2834 திருநாவுக்கரசர் - 4262	எட்டுத்தொகைநூல்களின்வரலாறும் கட்டமைப்பும்	தமிழருவிமணியன் – ஒற்றைச்சிறகு - உறவின்மேன்மை
SLO-5	அகநானூறுநூல்கட்டமைப்பு	தமிழ்இலக்கியமரபில்நீதிஇலக்கியங்கள்	திருவாசகம்- மாணிக்கவாசகர்ஆனந்தபரவசம் – பாடல் 10	பத்துப்பாட்டுநூல்களின்வரலாறும் வாழ்வியலும்	ஆர். சூடாமணி – மூடநம்பிக்கை.
SLO-6	அகநானூறு -238	நாலடியார்வைகலும் - பாடல்எண் 39	வைணவசமயவளர்ச்சிப்போக்கு	பதினெண்கீழ்க்கணக்கும்தமிழர்அறமரபும்	கிருஷ்ணாடாவின்ஸி – காலாஅருகேவாடா
SLO-7	கலித்தொகை – 11	நீதிஇலக்கியத்தில்மருந்துநூல்கள்	நாலாயிரத்திவ்யப்பிரபந்தம் குலசேகராழ்வார்பாடல்- 678	பதினோருநீதிஇலக்கியங்கள்	மொழிப்பயிற்சிசொற்களைஉருவாக்குதல்
SLO-8	தமிழர்புறமரபு- புறநானூறு-107	சிறுபஞ்சமூலம் -64	ஆண்டாள்பாடல் – 574. திருமழிசைஆழ்வார் பாடல்	காப்பியஇலக்கணம் - காப்பியங்களின்வகைமை	எழுத்துகளில்இருந்துசொற்களைக்கண்டுபிடித்தல்
SLO-9	புறநானூறு -110, 112	பழமொழிநானூறுஅறிமுகம் – தனித்தன்மைகள்	தமிழில்இஸ்லாமியஇலக்கியங்கள்	ஐம்பெருங்காப்பியங்கள்	படம்பார்த்துக்கதைஎழுதுதல்
SLO-10	பத்துப்பாட்டும்ஆற்றுப்படைநூல்களும்	பழமொழிநானூறு - 184	சீறாப்புராணம் - விடமீட்டப்படலம் -10 பாடல்கள்	தமிழ்ச்சமூகமும்சமயத்தத்துவங்களும்	படம்பார்த்துக்கவிதைஎழுதுதல்
SLO-11	சிறுபாணாற்றுப்படை: 84-115	பண்டைக்காலப்போரும் வாழ்வும் - புறம்	தமிழில்கிறித்தவஇலக்கியங்கள்	பன்னிருதிருமுறை – அறிமுகம், வரலாறு	கற்பனையும்படைப்பும் - தமிழில்வாசகம்
SLO-12	பட்டினப்பாலை: 40-50	களவழிநாற்பது - 40	கிறித்துவின்அருள்வேட்டல் – திரு.வி.க. அலகிலொளி- 5 பாடல்	நாலாயிரத்திவ்வியப்பிரபந்தம் – அறிமுகம், வரலாறு	விளம்பரத்திற்குவாசகம்எழுதுதல்

Resources			
1	கொன்றை, தொகுப்பும்பதிப்பும் - தமிழ்த்துறைஆசிரியர்கள், தமிழ்த்துறை, எஸ்.ஆர்.எம். அறிவியல்மற்றும்தொழில்நுட்பக்கல்விநிறுவனம், காட்டாங்குளத்தூர், 603203, 2023	4	தமிழண்ணல், புதியநோக்கில்தமிழ்இலக்கியவரலாறு, மீனாட்சிபுத்தகநிலையம், மதுரை, **2017**
2	மு. அருணாசலம், தமிழ்இலக்கியவரலாறு, நூற்றாண்டுமுறை (9ஆம்நூ. முதல் 16 வரை), திபார்க்கர், சென்னை, 2005	5	தமிழ்இலக்கியத்தொடரடைவு
3	மதுரைதமிழ்இலக்கியமின்தொகுப்புத்திட்டம்	6	தமிழ்இணையக்கல்விக்கழகம்

Assessment

Bloom`s Level of Thinking		Continuous Learning Assessment (CLA) (50% weightage)								Final Assessment (50 % weightage)
		CLA – 1		CLA – 2		CLA – 3		CLA – 4 *		
		(10 %)		(10 %)		(20 %)		(10%)		
		Theory (%)	Practice (%)	Theory (%)	Practice (%)	Theory (%)	Practice (%)	Theory (%)	Practice (%)	Theory (%)
1	Remember	15	15	15	15	10	10	10	10	15
2	Understand	15	15	15	15	10	10	10	10	15
3	Apply	20	25	25	20	25	25	25	25	25
4	Analyze	20	25	25	20	25	25	25	25	25
5	Evaluate	15	10	10	15	15	15	15	15	10
6	Create	15	10	10	15	15	15	15	15	10
	Total (%)	100	100	100	100	100	100	100	100	100

Strategies

Technology		Pedagogy / Andragogy		Sustainable Development	
Simulations		Clarification/Pauses	✓	Good Health & Well Being	✓
Presentation Tools	✓	Group Discussion	✓	Quality Education	✓
Learning Management System	✓	Hands-on Practice	✓	Gender Equality	✓
		Debate	✓		
		Interactive Lecture	✓		
		Brainstorming	✓		

* The evaluation can be done on one or more parameters that include, (i) Seminars, (ii) Mini-Project, (iii) Case-Studies, (iv) MOOC Certification, (v) Publication of Article, (vi) Presentation of Research Work in Conferences, (vii) Assignments

Designers					
Professional Experts		**Higher Institution Experts**		**Internal Experts**	
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				2	Dr. R. Ravi, Assistant Professor and Head, Dept. of Tamil, FSH, SRMIST, VDP.
				3	Mr. G. Ganesh, Assistant Professor, Dept. of Tamil, FSH, SRMIST, RMP.
				4	Dr. T.R.Hebzibah beulah Suganthi, Assistant Professor, Dept. of Tamil, FSH, SRMIST, KTR.
				5	Dr. S.Saraswathy, Assistant Professor, Dept. of Tamil, FSH, SRMIST, KTR.

Course Code	ULH24AE2J	Course Title	Hindi - II	Category	A	Ability Enhancement Course	L	T	P	C
							2	0	2	3

Course Offering Department	Hindi	Pre-requisite Courses	Nil	Co-requisite Courses	Nil	Progressive Courses	Nil	Data Book / Codes/Standards	Nil

CLR	The purpose of learning this course is to:	Depth				Attainment			Programme Learning Outcomes									
CLR-1	They get to learn Ancient,Medieval,and Modern poetry	1	2	3	4	1	2	3	1	2	3	4	5	6	7	8	9	10
CLR-2	To understand the Significance of poems of great poets like Kabir,Tulsidas,Bihari and Dhananand																	
CLR-3	To Enhance and Enrich their knoeledge through poetry																	
CLR-4	Media based understanding for employability																	
CLR-5	Job Oriented writing skills																	

CLO	At the end of this course, learners will be able to:	Conceive	Design	Implement	Operate	Bloom's Level of Thinking	Expected Proficiency (%)	Expected Attainment (%)	Problem Solving, Critical Thinking, Creativity Solving	Communication Skills, Collaborating Skills	Independent Thinking, Analytical Reasoning, Learning to Learn, Research Skills	Leadership Qualities, Professionalism, Autonomy, Accountability	Digital Technology Skills	Value Inculcation, Multicultural inclusivity	Environmental Action, Community Engagement	Entrepreneurial Risk Taking	PSO-1	PSO-2
CLO-1	To provide a brief Introduction of Hindi poetry(Bhaktikal,Reetikal and Aadhunikkal)	✓	✓	-	-	2	85	75	3	2	3	-	-	2	-	-	-	-
CLO-2	To Discuss the origin and development of various forms of poetry in Hindi	✓	✓	✓	-	2	85	75	3	-	2	-	3	-	3	-	-	-
CLO-3	Focus on Evaluating the social changes through poetry	✓	✓	✓	✓	3	85	75	-	3	-	3	3	2	-	-	-	-
CLO-4	To Examine Transcreation in advertisement	✓	✓	✓	✓	3	85	75	2	-	2	3	-	-	2	-	-	-
CLO-5	To guide the students in the learning of the technical aspect of the Hindi Languge,this would help them in the field administration	✓	✓	✓	✓	3	85	75	-	3	-	3	3	2	-	-	-	-

Sessions	CLO - 1	CLO - 2	CLO - 3	CLO - 4	CLO - 5
	12	12	12	12	12
SLO-1	BHAKTI KALIN KAVITA	RITI KALIN KAVITA	ADHUNIK KAVITA	VIGYAPAN	PATRA LEKHAN&PARIBHASHIK SHABDAVALI
SLO-2	BHAKTIU KALIN KAITA KI AVADHARNA	AVADHARNA EVM SAWROOP	AVADHARNA EVM SAWROOP	AWADHARNA EVM SAROOP	AVADHARNA EVM SAROOP

SLO-3	SWARUP EVM MAHATWA	RITI KAL VIBHAJAN	MAHATVA EVM UDDESHYA	ARTH EVM PARIBHASHA	ARTH EVM PARIBHASHA
SLO-4	BHAKTIKAL KI PRASANGIKTA	MAHATVA EVM UDDESHYA	MATHLI SHARAN GUPT-NAR HO NA NIRASH KARO MAN KO	VIGYAPAN KE PRAKAR	PRAYOJAN EVM PRYOG
SLO-5	DOHE- KABIRDAS	DOHE- BIHARI	KAVI PARICHAYA EVM KAVITA KA VISHLESHAN	VIGYAPAN KI VISHESHTAYEN	PRAKAR EVM MAHATVA
SLO-6	SANT PARICHAY	KAVI PARICHAYA	SURYAKANT TRIPATHI NIRALA- VAR DE VEENAVADINI VAR DE	VIGYAPAN KA MAHATVA	VYAKTIGAT PATRA
SLO-7	DOHE KA VISLESHAN	DOHE KA VISLESHAN	KAVI PARICHAYA EVM VISHLESHAN	VIGYAPAN KI BHASHA	AUPCHARIK PATRA
SLO-8	GURU KA MAHATVA	DOHE- GHANANAND	NAGARJUN-- AKAL AUR USKE BAD	VIGYAPAN AUR ROZGAR	PARIBHASHIK SHABDAVALI
SLO-9	DOHE- TULSHIDAS	SNEH KI SARLTA KA VARNAN	AKAL KA VASHTAVIK CHITRAN	PRINT EVM ELECTRONIC VIGYAPAN	SHABDAVALI KI AVSHYAKTA
SLO-10	DOHE KA VISLESHAN	PREM KA MAHATVA	KATTIS- BADRINARAYAN	VIGYAPAN KI VYAPAKTA	KARYALYIN SHABDAVALI
SLO-11	DAYA KA MAHATVA	GHANANAND KI KAVYA SHAILI KA MAHATVA	SAMBAND VICCHED KI PARICHARCHA	VIGYAPANLEKHAN KI KALA	EK DIN EK SHABD
SLO-12	RAM KI MAHIMA	DHOHA PARICHARCHA	KAVYA PARICHARCHA	UDDESHYA	HINDI SE ANGREJI AUR ANGREJI SE HINDI SHABD

Resources			
1	**Edited Book: ""SAMANYA HINDI", SRIJONLOK PUBLICATION, 2023, New Delhi.**	4	BHAKTI ANDOLAN AUR SURDAS KA KAVYA – MANAGER PANDEY
2	KABIR – HAZARI PRASAD DWEDI	5	BIHARI – VISHVNATH PRASAD MISHR
3	SURDAS – RAM CHANDRA SHUKL	6	AADHUNIK VIGYAPAN AUR JANSAMPARK – TARESH BHATIA

Assessment										
Bloom`s Level of Thinking		Continuous Learning Assessment (CLA) (50% weightage)								Final Assessment (50 % weightage)
		CLA – 1		CLA – 2		CLA – 3		CLA – 4*		
		(10 %)		(10 %)		(20 %)		(10%)		
		Theory (%)	Practice (%)	Theory (%)	Practice (%)	Theory (%)	Practice (%)	Theory (%)	Practice (%)	Theory (%)
1	Remember	15	15	15	15	10	10	10	10	15
2	Understand	15	15	15	15	10	10	10	10	15
3	Apply	20	25	25	20	25	25	25	25	25
4	Analyze	20	25	25	20	25	25	25	25	25
5	Evaluate	15	10	10	15	15	15	15	15	10
6	Create	15	10	10	15	15	15	15	15	10
	Total (%)	100	100	100	100	100	100	100	100	100

Strategies					
Technology		Pedagogy / Andragogy		Sustainable Development	
Simulations		Clarification/Pauses	✓	Good Health & Well Being	✓
Presentation Tools	✓	Group Discussion	✓	Quality Education	✓
Learning Management System	✓	Hands-on Practice	✓	Gender Equality	✓
		Debate	✓		
		Interactive Lecture	✓		
		Brainstorming	✓		

* The evaluation can be done on one or more parameters that include, (i) Seminars, (ii) Mini-Project, (iii) Case-Studies, (iv) MOOC Certification, (v) Publication of Article, (vi) Presentation of Research Work in Conferences, (vii) Assignments

Designers					
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4	ALUMINI - VIPIN KUMAR JHA, Senior Translation Officer anju.bipin.jha@gmail.com			4	Dr.Nisha Murlidharan Assistant Professor, VDP,SRM IST Murulidharan- nishamup@srmist.edu.in

Course Code	ULF24AE2J	Course Title	French - II	Category	A	Ability Enhancement Course	L	T	P	C
							2	0	2	3

Course Offering Department	French	Pre-requisite Courses	Nil	Co-requisite Courses	Nil	Progressive Courses	Nil	Data Book / Codes/Standards	Nil

CLR	The purpose of learning this course is to:	Depth				Attainment			Programme Learning Outcomes									
CLR-1	Strengthen the language of the students both in oral and written	1	2	3	4	1	2	3	1	2	3	4	5	6	7	8	9	10
CLR-2	Express their sentiments, emotions, and opinions, reacting to information, situations																	
CLR-3	Make them learn the basic rules of French Grammar.																	
CLR-4	Develop strategies of comprehension of texts of different origin																	
CLR-5	Enable the students to overcome the fear of speaking a foreign language and take position as a foreigner speaking French																	
CLO	At the end of this course, learners will be able to:	Conceive	Design	Implement	Operate	Bloom's Level of Thinking	Expected Proficiency (%)	Expected Attainment (%)	Problem Solving, Critical Thinking, Creativity, Solution	Communication Skills, Collaborating Skills	Independent Thinking, Analytical Reasoning, Learning to Learn, Research Skills	Leadership Qualities, Professionalism, Autonomy, Accountability	Digital Technology Skills	Value Inculcation, Multicultural inclusivity	Environmental Action, Community Engagement	Entrepreneurial Risk Taking	PSO-1	PSO-2
CLO-1	To acquire knowledge about French language	✓	✓	-	-	2	85	75	3	2	3	-	-	2	-	-	-	-
CLO-2	To strengthen the knowledge on concept, culture, civilization, and translation of French	✓	✓	✓	-	2	85	75	3	-	2	-	3	-	3	-	-	-
CLO-3	To develop content using the features in French language	✓	✓	✓	✓	3	85	75	-	3	-	3	3	2	-	-	-	-
CLO-4	To interpret the French language into other language	✓	✓	✓	✓	3	85	75	2	-	2	3	-	-	2	-	-	-
CLO-5	To improve the communication, intercultural elements in French language	✓	✓	✓	✓	3	85	75	-	3	-	3	3	2	-	-	-	-

Session	CLO - 1	CLO - 2	CLO - 3	CLO - 4	CLO - 5
	12	12	12	12	12
SLO-1	Temps libre	Le pronom indéfini on	Vendre	Il faut	Les gallicismes
SLO-2	Les loisirs	Les adjectifs interrogatifs	Acheter	Le verbe devoir	Les pronoms personnels COI
SLO-3	Les moments de la journée	Les prépositions avec les noms géographiques	Les aliments	Le verbe pouvoir	Le pronom Y
SLO-4	Les matières scolaires	Les verbes prendre et sortir	Les emballages	Le verbe vouloir	Des pronoms compléments
SLO-5	Les activités quotidiennes, Les quotidiennes	Les sons	Les quantités	Demander et dire le prix	Les nombres ordinaux
SLO-6	Le temps, L'heure	Parler de ses gouts	Les commerces	Faire des achats	Les verbes écrire et voir
SLO-7	La fréquence	Parler de ses préférences	Les commerçants	Les activités	Le E caduc ou instable
SLO-8	Les sons [u], Les sons [y]	Parler de sa routine	L'impératif	Les activités	Présenter ses vœux

SLO-9	L'heure, Quelle heure est-il ?	A la recherche d'un cadeau	Les articles partitifs	Mots et expressions	Présenter ses félicitations
SLO-10	Les pronoms personnels COD	Temps libre	Très ou beaucoup (de)	Communication	Répondre à une invitation
SLO-11	Les pronominaux, Se promener, se coucher etc…,	Mots et expressions	Le pronom en (la quantité)	Les sorties	Écrire un message amical
SLO-12	Les verbes du premier groupe, Parler, Demander, Poser	Grammaire– Communication	La phrase négative (2	Les fêtes	Parler au téléphone

Resources			
1	''La Nouvelle Génération-AI'' Méthode de français, Marie-Noëlle COCTON, P. DAUDA, L. GIACHINO, C. BARACCO, Les éditions Didier, Paris, 2018.	2	https://www.elearningfrench.com/learn-french-grammar-online-free.html
3	Cahier d'activités avec deux discs compacts.	4	https://www.lawlessfrench.com/grammar
5	https://www.fluentu.com/blog/french/french-grammar	6	https://blog.gymglish.com/2022/12/15/basic-french-grammar

Assessment

Bloom`s Level of Thinking		**Continuous Learning Assessment (CLA) (50% weightage)**								**Final Assessment (50 % weightage)**
		CLA – 1		**CLA – 2**		**CLA – 3**		**CLA – 4***		
		(10 %)		**(10 %)**		**(20 %)**		**(10%)**		
		Theory (%)	**Practice (%)**	**Theory (%)**	**Practice (%)**	**Theory (%)**	**Practice (%)**	**Theory (%)**	**Practice (%)**	**Theory (%)**
1	Remember	15	15	15	15	10	10	10	10	15
2	Understand	15	15	15	15	10	10	10	10	15
3	Apply	20	25	25	20	25	25	25	25	25
4	Analyze	20	25	25	20	25	25	25	25	25
5	Evaluate	15	10	10	15	15	15	15	15	10
6	Create	15	10	10	15	15	15	15	15	10
	Total (%)	100	100	100	100	100	100	100	100	100

Strategies

Technology		Pedagogy / Andragogy		Sustainable Development	
Simulations		Clarification/Pauses	✓	Good Health & Well Being	✓
Presentation Tools	✓	Group Discussion	✓	Quality Education	✓
Learning Management System	✓	Hands-on Practice	✓	Gender Equality	✓
		Debate	✓		
		Interactive Lecture	✓		
		Brainstorming	✓		

* The evaluation can be done on one or more parameters that include, (i) Seminars, (ii) Mini-Project, (iii) Case-Studies, (iv) MOOC Certification, (v) Publication of Article, (vi) Presentation of Research Work in Conferences, (vii) Assignments

Designers					
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Course Code	USA24201J	Course Title	Data Structures and Algorithms	Category	C	Core	L	T	P	C
							3	0	3	4

Course Offering Department	Computer Applications	Pre-requisite Courses	Nil	Co-requisite Courses	Nil	Progressive Courses	Nil	Data Book / Codes/Standards	Nil

CLR	The purpose of learning this course is to:	Depth				Attainment			Programme Learning Outcomes										
CLR-1	Utilize the different data types; Utilize searching and sorting algorithms	1	2	3	4	1	2	3	1	2	3	4	5	6	7	8	9	10
CLR-2	Utilize linked list in developing applications																	
CLR-3	Utilize stack and queues in processing data for real-time applications																	
CLR-4	Utilize tree data storage structure for real-time applications																	
CLR-5	Utilize algorithms to find shortest data search in graphs for real-time application development																	
CLO	At the end of this course, learners will be able to:	Conceive	Design	Implement	Operate	Bloom's Level of Thinking	Expected Proficiency (%)	Expected Attainment (%)	Problem Solving, Critical Thinking, Creativity, Solving	Communication Skills, Collaborating Skills	Independent Thinking, Analytical Reasoning, Learning to Learn, Research	Leadership Qualities, Professionalism, Autonomy, Accountability	Digital Technology Skills	Value Inculcation, Multicultural inclusivity	Environmental Action, Community Engagement	Entrepreneurial Risk Taking	PSO-1	PSO-2
CLO-1	Identify linear and non-linear data structures. Create algorithms for searching and sorting	✓	✓	-	-	2	85	75	3	-	-	1	-	3	-	2	2	1
CLO-2	Create the different types of linked lists and evaluate its operations	✓	✓	✓	-	2	85	75	3	2	1	2	2	3	-	1	2	1
CLO-3	Construct stack and queue data structures and evaluate its operations	✓	✓	✓	✓	3	85	75	3	1	3	1	3	3	-	1	1	2
CLO-4	Create tree data structures and evaluate its types and operations	✓	✓	✓	✓	3	85	75	3	3	2	3	3	3	-	2	3	3
CLO-5	Create graph data structure, evaluate its operations, implement algorithms to identify shortest path	✓	✓	✓	✓	3	85	75	3	3	2	3	3	3	-	3	3	3

Sessions	CLO - 1	CLO - 2	CLO - 3	CLO - 4	CLO - 5
	Introduction to Data Structures	Stack & Queues	Trees	Sorting & Searching	Graph
	18	18	18	18	18
SLO-1	Introduction to theory of data structures Data representation	Introduction to stack Representation of stack through array	Tree Traversals–In order, preorder Tree Traversals-Post order	Introduction to sorting Different types of sorting	Graph Terminology Representation of graph–Arrays
SLO-2	Abstract Data type Classification of data types	Representation of stack through linked List Operations on stack	Binary Search Tree Threaded Binary Search Tree	Bubble sort Example	Representation of graph–Linked list Graph Traversal–BFS
SLO-3	Asymptotic Notation Algorithm Analysis, Recursion	Disadvantages of Stack, Polish notations Applications– Evaluation of Expression, Tower of Hanoi, Infix	Binary Search Tree: Construction Binary Search Tree: Insertion, Searching	Insertion Sort Quick sort Example	Example Graph Traversal–DFS, Topological Sorting

		to Postfix expression			
SLO-4-6	Lab 1:Recursion	Lab 4:Implementation of stack and its applications	Lab 7: Implement all the three type of Tree Traversals	Lab 10:Implementation of Bubble and Insertion sort	Lab 13:Implementation of Graph using Array
SLO-7	Introduction to Data structures Data Structures and its uses	Queue, Representation of Queue using Arrays and Linked list	Applications of trees Applications of BST	Selection sortExample	Shortest Path Algorithm-Introduction Shortest Path Algorithm: Dijkstra
SLO-8	Linear and Non-Linear Data Structures, Operations on datastructure	Operations on Queue, Circular Queue	Expression trees, Example	Merge sort, Example	Applications of Graph,
SLO-9	Array types Array operations, Applications of arrays Dynamic memory allocation	Double ended Queue Priority Queue, Reversing a Queue using another queue, Applications of Queue	AVL Tree AVL Tree Rotations, Applications of AVL tree	Radix sort, Heap Sort, Example, Comparison of sorts	Minimum spanning tree–Prims Minimum Spanning Tree–Kruskals
SLO-10-12	Lab 2:Arrays	Lab 5:Queue implementation using array and pointers	Lab 8:Implementation of BST Heap Data Structure	Lab 11:Implementation of Quick sort and merge sort	Lab 14:Implementation of shortest path algorithm
SLO-13	Introduction to lists Linked list operations	Introduction to non-linear data structures TreeADT and Terminologies	Minimum Heap Construction Example	Introduction to searching , Linear search Binary search	Algorithm Design And Analysis Greedy Algorithms
SLO-14	Types of Linked Lists Linked list vs. Arrays	Tree Terminologies Tree Representation	Minimum Heap Deletion Construction Example	Comparison of different search Define Hashing, Hash functions	Back tracking Example
SLO-15	Application of linked list, Performance Analysis and Measurement of algorithm Efficiency of algorithm, Time complexity and space complexity	Tree Types and Operations Binary Tree Representation, Properties of binary tree	Maximum Heap Construction Maximum Heap Deletion Construction Applications of Heaps and AVLtrees	Hashing: Collision avoidance Hashing: Separate chaining, Open addressing, Advantages of Hashing	Divide And Conquer Example
SLO-16-18	Lab 3: Implementation of Linked List	Lab 6:Implementation of binary tree using Arrays	Lab 9:Implementation of Min and Max Heap	Lab 12:Linear search and Binary search	Lab 15:Implementation of minimum spanning tree

Resources

1	SeymourLipschutz,(2014),“Data Structures with C”,McGraw Hill Education,Special Indian Edition	4	SRDGroup,(2013),“Data structures using C”,McGrawHill,2ndEdition,
2	R.F.Gilberg,B.A.Forouzan,(2005),“Data Structures”,ThomsonIndi,2ndEdition,	5	A.V.Aho,J.EHopcroft,J.D.Ullman,(2003),“Data structures and Algorithms”,1stEdition,Pearson Education
3	MarkAllenWeiss,“Data Structures and Algorithm Analysis in C”,2nd Edition,Pearson Education	6	ReemaThareja,(2011),“Data Structures Using C”,1stEdition,Oxford Higher Education

Assessment											
Bloom`s Level of Thinking		Continuous Learning Assessment (CLA) (50% weightage)								Final Assessment (50 % weightage)	
		CLA – 1		CLA – 2		CLA – 3		CLA – 4*			
		(10 %)		(10 %)		(20 %)		(10%)			
		Theory (%)	Practice (%)	Theory (%)	Practice (%)	Theory (%)	Practice (%)	Theory (%)	Practice (%)	Theory (%)	Practice (%)
1	Remember	20	20	20	20	20	20	15	15	20	20
2	Understand	20	20	20	20	20	20	15	15	20	20
3	Apply	20	20	20	20	20	20	20	20	20	20
4	Analyze	20	20	20	20	20	20	20	20	20	20
5	Evaluate	10	10	10	10	10	10	10	10	10	10
6	Create	10	10	10	10	10	10	10	10	10	10
	Total (%)	100	100	100	100	100	100	100	100	100	100

Strategies					
Technology		Pedagogy / Andragogy		Sustainable Development	
Simulations		Clarification/Pauses	✓	Good Health & Well Being	✓
Presentation Tools	✓	Group Discussion	✓	Quality Education	✓
Learning Management System	✓	Hands-on Practice	✓	Gender Equality	✓
		Debate	✓		
		Interactive Lecture	✓		
		Brainstorming	✓		

* The evaluation can be done on one or more parameters that include, (i) Seminars, (ii) Mini-Project, (iii) Case-Studies, (iv) MOOC Certification, (v) Publication of Article, (vi) Presentation of Research Work in Conferences, (vii) Assignments

Designers					
Professional Experts		Higher Institution Experts		Internal Experts	
1	Mr.Jothi Periaswamy, Founder/Chief Data Scientist, DeepSphere AI, 2 Venture Drive, #13-26 Vision Exchange, Singapore, 608526	1	Dr.S.Gopinathan,Professor,University of Madras, Chennai	1	Dr.R.Aruna Rani, Assistant Professor, SRMIST, KTR Campus

Course Code	UCA24202J	Course Title	Object Oriented Programming	Category	C	Core	L	T	P	C
							3	0	3	4

Course Offering Department	Computer Applications	Pre-requisite Courses	Nil	Co-requisite Courses	Nil	Progressive Courses	Nil	Data Book / Codes/Standards	Nil

CLR	The purpose of learning this course is to:	Depth				Attainment			Programme Learning Outcomes									
CLR-1	Introduction to object oriented programming.	1	2	3	4	1	2	3	1	2	3	4	5	6	7	8	9	10
CLR-2	Utilize method overloading and operator overloading for real-time application development programs																	
CLR-3	Utilize inline, friend and virtual functions and create application development programs																	
CLR-4	Utilize exceptional handling and collections for real-time object oriented programming applications																	
CLR-5	Create programs using object oriented approach and design methodologies for real-time application development																	
CLO	At the end of this course, learners will be able to:	Conceive	Design	Implement	Operate	Bloom's Level of Thinking	Expected Proficiency (%)	Expected Attainment (%)	Problem Solving, Critical Thinking, Creativity Solving	Communication Skills, Collaborating Skills	Independent Thinking, Analytical Reasoning, Learning to Learn, Research Skills	Leadership Qualities, Professionalism, Autonomy, Accountability	Digital Technology Skills	Value Inculcation, Multicultural inclusivity	Environmental Action, Community Engagement	Entrepreneurial Risk Taking	PSO-1	PSO-2
CLO-1	Understanding the object oriented programming	✓	✓	-	-	2	85	75	3	-	-	1	-	3	-	2	2	1
CLO-2	Construct programs using method overloading and operator overloading	✓	✓	✓	-	2	85	75	3	2	1	2	2	3	-	1	2	1
CLO-3	Create programs using inline, friend and virtual functions, construct programs using standard templates	✓	✓	✓	✓	3	85	75	3	1	3	1	3	3	-	1	1	2
CLO-4	Construct programs using exceptional handling and collections	✓	✓	✓	✓	3	85	75	3	3	2	3	3	3	-	2	3	3
CLO-5	Construct programs using object oriented concepts	✓	✓	✓	✓	3	85	75	3	3	2	3	3	3	-	3	3	3

Session	CLO - 1	CLO - 2	CLO - 3	CLO - 4	CLO - 5
	Introduction to OOPs Concept	Constructor & Overloading	Inheritance &Abstract Classes	Working with Files	Templates & Exception Handling
	18	18	18	18	18
SLO-1	Comparison of Procedural and Object Oriented Programming List of OOPS languages and its features	Constructor Types: Default and Parameterized constructor Example Programs	Inheritance and its types Inheritance: Single	Introduction to Files Classes For File Stream Operations	Templates : Introduction Types of templates
SLO-2	Features: Classes, Objects, Inheritance, Polymorphism, Encapsulation Data Hiding, Message Passing, Reusability	Constructor Types: Copy and Static, Private. Example Programs	Inheritance: Multiple, Example program Inheritance: Multilevel	Types of files, Opening and Closing a File, Example Program Detecting End Of File	Class Templates Example for class templates Function templates

SLO-3	I/O Operations, Data Types Variables, Constants and Type Conversion, Operators, Special operators	Destructor Static Data members, Static member functions, Example program	Example program Visibility of access specifier	Example program Read and write functions- character and string	Introduction to STL – Containers and Iterators Simple example for STL, Example program
SLO-4-6	Lab 1: I/O operations and operators	Lab 4: Parameterized Constructor and Constructor Overloading	Lab 7: Inheritance	Lab 10: Simple file programs	Lab13 :Templates
SLO-7	Control Structures Examples of Control Structures	Overloading Concept in OOP Overloading types	Inheritance : Hierarchical Example program	File Open Modes Example program	Exceptional Handling: Types of exceptional handlingExceptional Handling :Try and Catch, Example program
SLO-8	Functions and types Function declaration and definition	Function Overloading: Different parameter with same data type Example Program	Inheritance : Hybrid Example program	File Pointer Manipulations Example Program	Exceptional Handling : Standard exceptions Example program
SLO-9	Passing arguments, returning values, default arguments, Constant arguments Call by value , Call by reference, Return by reference, Inline Functions	Function Overloading: Different parameter with different argument types, Example Program Function Overloading: Different parameter with different return values, Example Program	Constructors and destructors in inheritance, Example Program Constructors and types of inheritance, Example program	Sequential Input and Output Operations Functions to handle file pointer, Example Program	Exceptional Handling: Multilevel exceptional throw and throws, Example program
SLO-10-12	Lab 2: Control structures and Functions	Lab 5: Function Overloading	Lab 8 : Multiple, Multilevel Inheritance	Lab 11: Working with files	Lab 14: Multilevel exceptional programs
SLO-13	Classes and Objects Access specifier	Operator Overloading Concept, Types of operator overloading Operator Overloading: Unary Operators, Example program	Virtual Base Classes Example Program	Reading a class object, Example Program Random Access –Updating a File	Exceptional Handling: finally User defined exceptions
SLO-14	Visibility of access specifier Example program Friend Function Example program	Operator Overloading: binary Operators Example program	Abstract Classes, Example Program Virtual Functions, Example Program	Example program Error Handling in File Operations	Programs for user defined exceptions, Example program Exception Handling class, Example program
SLO-15	Inline functions Example program Constructor, Destructor Example program	Operator Overloading: Assignment Operator Example program	this pointer Example Program	Example program Command Line Arguments, Example program	User defined exceptional class Example Programs using CPP
SLO-16-18	Lab 3: Classes and Objects	Lab 6: Operator Overloading	Lab 9 : Abstract classes and Virtual Functions	Lab 12: command line arguments program	Lab 15: User defined Exceptions and simple CPP application.

Resources			
1	E Balagurusamy, Object Oriented Programming in C++, 7th ed., Tata McGraw-Hill , 2017	3	Reema Thareja, Object Oriented Programming with C++, 1st ed., Oxford University Press, 2015
2	R S Salaria, Mastering Object Oriented Systems Development Programming in C++", 6th ed., Khanna Publishing,2016	4	Robert Lafore, Object-Oriented Programming in C++, 4th ed., SAMS Publishing, 2008

Assessment

Bloom`s Level of Thinking		Continuous Learning Assessment (CLA) (50% weightage)								Final Assessment (50 % weightage)	
		CLA – 1		CLA – 2		CLA – 3		CLA – 4*			
		(10 %)		(10 %)		(20 %)		(10%)			
		Theory (%)	Practice (%)	Theory (%)	Practice (%)	Theory (%)	Practice (%)	Theory (%)	Practice (%)	Theory (%)	Practice (%)
1	Remember	20	20	20	20	20	20	15	15	20	20
2	Understand	20	20	20	20	20	20	15	15	20	20
3	Apply	20	20	20	20	20	20	20	20	20	20
4	Analyze	20	20	20	20	20	20	20	20	20	20
5	Evaluate	10	10	10	10	10	10	10	10	10	10
6	Create	10	10	10	10	10	10	10	10	10	10
	Total (%)	100	100	100	100	100	100	100	100	100	100

Strategies

Technology		Pedagogy / Andragogy		Sustainable Development	
Simulations		Clarification/Pauses	✓	Good Health & Well Being	✓
Presentation Tools	✓	Group Discussion	✓	Quality Education	✓
Learning Management System	✓	Hands-on Practice	✓	Gender Equality	✓
		Debate	✓		
		Interactive Lecture	✓		
		Brainstorming	✓		

* The evaluation can be done on one or more parameters that include, (i) Seminars, (ii) Mini-Project, (iii) Case-Studies, (iv) MOOC Certification, (v) Publication of Article, (vi) Presentation of Research Work in Conferences, (vii) Assignments

Designers

Professional Experts		Higher Institution Experts		Internal Experts	
1	Mr.Jothi Periaswamy, Founder/Chief Data Scientist, DeepSphere AI, 2 Venture Drive, #13-26 Vision Exchange, Singapore, 608526	1	Dr.S.Gopinathan, Professor, University of Madras, Chennai	1	Dr.R.Thilagavathy, Assistant Professor, SRMIST, KTR Campus

Course Code	UMS24202T	Course Title	Mathematical Foundation	Category	C	Core	L	T	P	C
							4	0	0	4

Course Offering Department	Mathematics and Statistics	Pre-requisite Courses	Nil	Co-requisite Courses	Nil	Progressive Courses	Nil	Data Book / Codes/Standards	Nil

Course Rationale (CLR)	**The purpose of learning this course is to:**	**Depth**				**Attainment**			**Programmme Learning Outcomes**										
CLR-1	To apply the basic concepts and theorems of Matrices	1	2	3	4	1	2	3	1	2	3	4	5	6	7	8	9	10
CLR-2	To learn the concepts of polynomial equations, reciprocal equations and approximation of roots.																	
CLR-3	To learn the basic concepts of differentiation, successive differentiation and partial differentiation																	
CLR-4	To learn the basic concepts of integration and to apply Bernoulli's formula and reduction formula.																	
CLR-5	To understand how a function is transformed by Laplace and inverse Laplace methods and how they are related.																	
Course Learning Outcomes (CLO)	**At the end of this course, learners will be able to:**	Conceive	Design	Implement	Operate	Bloom's Level of Thinking	Expected Proficiency (%)	Expected Attainment (%)	Problem Solving, Critical Thinking,	Communication Skills, Collaborating	Independent Thinking, Analytical	Leadership Qualities, Professionalism,	Digital Technology Skills	Value Inculcation, Multicultural	Environmental Action, Community	Entrepreneurial Risk Taking	PSO-1	PSO-2
CLO-1	Gaining knowledge in basic concepts of matrix method.	✓	✓	-	-	2	85	75	3	-	-	1	-	3	-	2	2	1
CLO-2	Gaining knowledge in the concepts of polynomial equations and reciprocal equations and applying Horner's and Newton's methods for finding roots	✓	✓	✓	-	2	85	75	3	2	1	2	2	3	-	1	2	1
CLO-3	Understanding the concepts of differentiation and to solve the problems of Radius of curvature and Euler's theorem	✓	✓	✓	✓	3	85	75	3	1	3	1	3	3	-	1	1	2
CLO-4	Understanding the concepts of integration and to evaluate reduction formula.	✓	✓	✓	✓	3	85	75	3	3	2	3	3	3	-	2	3	3
CLO-5	Getting the knowledge of Laplace and Inverse Laplace transformation and their application.	✓	✓	✓	✓	3	85	75	3	3	2	3	3	3	-	3	3	3

Session	**CLO-1**	**CLO-2**	**CLO-3**	**CLO-4**	**CLO-5**
	Matrices	**Algebraic Equations**	**Differentiation**	**Integration**	**Laplace Transforms**
	12	**12**	**12**	**12**	**12**
SLO-1	**Definition and types of matrix - Examples of types of Matrix**	**Introduction to algebraic equations**	Introduction to Differentiation	**Introduction to integration - Basic problems on integration**	**Introduction to Laplace Transforms- Basic Properties**
SLO-2	**Symmetric matrix - Skew-symmetric matrix**	**Types of algebraic equations**	Solving basic problems – more examples	**Integration of polynomial functions and Irrational Functions**	**Problems on Laplace Transforms**

SLO-3	**Hermitian matrix** - Skew-Hermitian matrix	Relation between roots and coefficients of equation	Maxima- Minima of functions of single variable	**Integration by the method of partial fractions Type I, Type II, Type III**	**Problems based on Shifting property**
SLO-4	**Tutorial**	**Tutorial**	**Tutorial**	**Tutorial**	**Tutorial**
SLO-5	**Orthogonal matrix**	**Problems on irrational roots**	Problems based on Maxima-Minima of functions of single variable	**Bernoulli's formula**	**Solving problems of type** $L\left[e^{at} f(t)\right]$
SLO-6	**Unitary matrix**	**Complex roots**	Introduction to curvature	**Simple Problems**	**Problems based on derivative method**
SLO-7	**Eigen values of a matrix**	**Reciprocal equations-Definition**	Radius of Curvature	**Reduction formula for** $\int \sin^n x dx$	**Solving problems of type** $L[tf(t)]$
SLO-8	**Tutorial**	**Tutorial**	**Tutorial**	**Tutorial**	**Tutorial**
SLO-9	**Eigen values and eigen vectors of a matrix**	**Solving Reciprocal equation of degree four with like and unlike signs for its coefficients-Type I, Type II , Type III , Type IV**	Problems based on radius of curvature	**Reduction formula for** $\int \cos^n x dx$	**Solving problems of type** $L\left[t^n f(t)\right]$ **and type** $L\left[e^{at} tf(t)\right]$
SLO-10	**Cayley Hamilton theorem - Problems**	**Newton-Raphson method – Problems**	Partial differentiation-Introduction	**Reduction formula for** $\int_0^{\frac{\pi}{2}} \sin^n x dx$	**Solving problems of type** $L\left[\frac{f(t)}{t}\right]$
SLO-11	Cramer's rule	Horner's Methods	Euler's theorem	**Reduction formula for** $\int_0^{\frac{\pi}{2}} \cos^n x dx$	**Basic problems on Inverse Laplace Transforms**
SLO-12	Problems based on Cramer's rule	Problems based on Horner's Methods	Problems based on Euler's Theorem	Simple problems	**Finding inverse Laplace transforms by the method of partial fractions – problems based on that concepts.**

Resources			
1	Dr.A.Singaravelu, Allied Mathematics, 7th edition, A.R.S.Publicatiions, 2015	2	P.R.Vittal, Margham Publications, Latest edition,2002

Assessment

Bloom`s Level of Thinking		Continuous Learning Assessment (CLA) (50% weightage)				Final Assessment (50 % weightage)
		CLA – 1	CLA – 2	CLA – 3	CLA – 4*	
		(10 %)	(10 %)	(20 %)	(10%)	
		Theory (%)	Theory (%)	Theory (%)	Theory (%)	Theory (%)
1	Remember	40	40	30	30	40
2	Understand	40	40	30	30	40
3	Apply	40	40	40	40	40
4	Analyse	40	40	40	40	40
5	Evaluate	20	20	30	30	20
6	Create	20	20	30	30	20
	Total (%)	100	100	100	100	100

Strategies

Technology		Pedagogy / Andragogy		Sustainable Development	
Simulations		Clarification/Pauses	✓	Good Health & Well Being	✓
Presentation Tools	✓	Group Discussion	✓	Quality Education	✓
Learning Management System	✓	Hands-on Practice	✓	Gender Equality	✓
		Debate	✓		
		Interactive Lecture	✓		
		Brainstorming	✓		

* The evaluation can be done on one or more parameters that include, (i) Seminars, (ii) Mini-Project, (iii) Case-Studies, (iv) MOOC Certification, (v) Publication of Article, (vi) Presentation of Research Work in Conferences, (vii) Assignments

Designers

Professional Experts		Higher Institution Experts		Internal Experts	
1	Dr. D. Arivudai nambi, Anna University, Chennai	1	Dr. N.Viswanathan, Presidency college , Chennai	1	Dr.S.Poongodisathiya, SRM IST, KTR Campus, poongods@srmist.edu.in
				2	Dr.S.Saravanakumar, SRM IST, KTR Campus, saravans14@srmist.edu.in

Course Code	UCD24V01T	Course Title	Essentials of Artificial Intelligence	Category	V	Value Added Courses	L	T	P	C
							1	0	0	1

Course Offering Department	Computer Applications	Pre-requisite Courses	Nil	Co-requisite Courses	Nil	Progressive Courses	Nil	Data Book / Codes/Standards	Nil

CLR	The purpose of learning this course is to:	Depth				Attainment			Programme Learning Outcomes									
CLR-1	Study the basics of designing intelligent agents that can solve general purpose problems	1	2	3	4	1	2	3	1	2	3	4	5	6	7	8	9	10
CLR-2	Discover appropriate AI methods to solve a given problem																	
CLR-3	Perform intellectual task as decision making, problem solving, perception, understanding																	
CLR-4	Formalize a given problem using different AI methods																	
CLR-5	Provides adaptive learning																	
CLO	At the end of this course, learners will be able to:	Conceive	Design	Implement	Operate	Level of Thinking	Expected Proficiency (%)	Expected Attainment (%)	Problem Solving, Critical Thinking, Creativity	Communication Skills, Collaborating Skills	Independent Thinking, Analytical Reasoning, Learning to Learn, Research Skills	Leadership Qualities, Professionalism, Autonomy, Accountability	Digital Technology Skills	Value Inculcation, Multicultural inclusivity	Environmental Action, Community Engagement	Entrepreneurial Risk Taking	PSO-1	PSO-2
CLO-1	Demonstrate fundamental understanding of the history of artificial intelligence and its foundations	✓	✓	-	-	2	85	75	3	-	-	1	2	1	-	-	-	1
CLO-2	Apply basic principles of AI in solutions that require problem solving, inference, perception, knowledge representation, and learning	✓	✓	✓	-	2	85	75	2	-	1	-	2	2	-	1	-	1
CLO-3	Identify systems with Artificial Intelligence. evaluation of different algorithms on a problem formalization	✓	✓	✓	✓	3	85	75	2	3	2	-	2	1	-	1	-	2
CLO-4	Use classical Artificial Intelligence techniques, such as search algorithms	✓	✓	✓	✓	3	85	75	3	-	2	-	2	2	-	2	-	-
CLO-5	Ability to apply Artificial Intelligence techniques for problem solving.	✓	✓	✓	✓	3	85	75	2	2	-	-	2	-	-	-	-	-

Session	CLO-1	CLO-2	CLO-3	CLO-4	CLO-5
	Introduction to Artificial Intelligence	Logical Reasoning and First order logic	Unification and State Space Search	Planning Graphs	Probability Theory and Temporal Models
	3	3	3	3	3
SLO-1	Introduction to Artificial Intelligence, History of Artificial Intelligence- AI models,	Logical Reasoning- Introduction- Knowledge Representation	Unification and Conditions, Unification algorithm	Partial-order planning, planning graphs	Probability Theory, Uncertain Knowledge, Axioms of probability.

SLO-2	Problem Solving with Artificial Intelligence- Problem Solving Process	Logical Agents, Knowledge based Agents, Syntax of First order logic, Basic elements of First order logic	Planning: designing programs to search for data or solutions to problem.	Uses of planning graph, Planning and acting in the real world	Bayes Theorem, Bayes' Rules & uses, Bayesian networks, Types of Bayesian Network
SLO-3	Problem Types, Characteristics and Representation-Agents-Examples of Agents, Types of agents	Forward chaining and Backward Chaining- Properties Examples	State-space search, Problems to solve: Water Jug Problem, State representation: Initial, operator, goal state	Forward march, Backward march and Limited resources	Temporal models, Hidden Markov models, HMM components

Resources			
1	Russel.SandNorvig.P, (2003), "Artificial Intelligence – A Modern Approach", Second Edition, Pearson Education	2	S. Russel and P. Norvig, "Artificial Intelligence – A Modern Approach", Second Edition, Pearson Education

Assessment					
Bloom`s Level of Thinking		Continuous Learning Assessment (CLA) (100% weightage)			
		CLA – 1	CLA – 2	CLA – 3	CLA – 4*
		(20%)	(20%)	(30%)	(30%)
		Theory (%)	Theory (%)	Theory (%)	Theory (%)
1	Remember	20	15	20	20
2	Understand	20	15	20	20
3	Apply	15	15	15	20
4	Analyse	15	15	15	20
5	Evaluate	15	20	15	10
6	Create	15	20	15	10
Total (%)		100	100	100	100

Strategies					
Technology		Pedagogy / Andragogy		Sustainable Development	
Simulations		Clarification/Pauses	✓	Good Health & Well Being	✓
Presentation Tools	✓	Group Discussion	✓	Quality Education	✓
Learning Management System	✓	Hands-on Practice	✓	Gender Equality	✓
		Debate	✓		
		Interactive Lecture	✓		
		Brainstorming	✓		

* The evaluation can be done on one or more parameters that include, (i) Seminars, (ii) Mini-Project, (iii) Case-Studies, (iv) MOOC Certification, (v) Publication of Article, (vi) Presentation of Research Work in Conferences, (vii) Assignments

Designers					
Professional Experts		**Higher Institution Experts**		**Internal Experts**	
1	Mr.Jothi Periaswamy, Founder/Chief Data Scientist, DeepSphere AI, 2 VentureDrive, #13-26 Vision Exchange, Singapore, 608526	1	Dr.S.Gopinathan, Professor and Head, Department of Computer Science, University of Madras, Guindy Campus,Chennai-600025	1	Dr.S.Belina V J Sara, Assistant Professor, SRMIST, KTR Campus

Course Code	UCA24M01J	Course Title	Web Technology	Category	M	Multidisciplinary Courses (M)	L	T	P	C
							2	0	2	3

Course Offering Department	Computer Applications	Pre-requisite Courses	Nil	Co-requisite Courses	Nil	Progressive Courses	Nil	Data Book / Codes/Standards	Nil

CLR	The purpose of learning this course is to:	Depth				Attainment			Programme Learning Outcomes									
CLR-1	To gain knowledge about Open Source Software	1	2	3	4	1	2	3	1	2	3	4	5	6	7	8	9	10
CLR-2	To Learn basic file and directory commands in Linux																	
CLR-3	To develop simple PHP programs																	
CLR-4	To understand working with arrays and function																	
CLR-5	To learn various MySQL queries																	
CLO	At the end of this course, learners will be able to:	Conceive	Design	Implement	Operate	Level of Thinking	Expected Proficiency (%)	Expected Attainment (%)	Problem Solving, Critical Thinking, Creativity Solving	Communication Skills, Collaborating Skills	Independent Thinking, Analytical Reasoning, Learning to Learn	Leadership Qualities, Professionalism, Autonomy, Accountability	Digital Technology Skills	Value Inculcation, Multicultural inclusivity	Environmental Action, Community Engagement	Entrepreneurial Risk Taking	PSO-1	PSO-2
CLO-1	Create files using Vi editor	✓	✓	-	-	2	85	75	3	-	-	1	-	3	-	2	2	1
CLO-2	Write PHP scripts to handle HTML forms.	✓	✓	✓	-	2	85	75	3	2	1	2	2	3	-	1	2	1
CLO-3	Write regular expressions including modifiers, operators, and meta characters.	✓	✓	✓	✓	3	85	75	3	1	3	1	3	3	-	1	1	2
CLO-4	Create PHP programs that use various PHP library functions and that manipulate files and directories	✓	✓	✓	✓	3	85	75	3	3	2	3	3	3	-	2	3	3
CLO-5	Analyze and solve various database tasks using the PHP language	✓	✓	✓	✓	3	85	75	3	3	2	3	3	3	-	3	3	3

Session	CLO-1	CLO-2	CLO-3	CLO-4	CLO-5
	Working with Linux and Files	**Introduction to PHP and Embedded PHP**	**Functions and Strings**	**Arrays and Objects.**	**Working of Database and Queries**
	12	**12**	**12**	**12**	**12**
SLO-1	Introduction to Linux, Features of Linux	What Does PHP Do? and A Brief History of PHP and Language Basics and Lexical Structure	Introduction to Function, Calling a Function, Defining a Function and Variable scope	Introduction to Arrays and Indexed Versus Associative Arrays	Introduction to MySQL Database and Connecting to and disconnecting from the server
SLO-2	Open Source software, Benefits of Open Source software	Introduction to Data Types, Scalar Types, Compound Types, Special Types	Default Parameters, Variable Parameters Passing parameters by value, Passing parameters by reference	Identifying Elements of an Array and Storing Data in Arrays, Multidimensional Arrays, Extracting Multiple Values	Creating and using a database and Selecting a database
SLO-3&4	Lab1: Learning to work with linux server	Lab 4: Writing Simple PHP Programs	Lab 7: Passing parameters to a function	Lab 10: Arrays	Lab 13: Creating Database and tables
SLO-5	Linux Files, The File Structure, Listing files, Working with ls command	Defining Variables, Variable Scope and Introduction to Expressions	Variable Functions, Missing Parameters, Return Values, Introduction to Strings	Sorting, Reversing an array, Introduction to Object, Creating an Object and Accessing Properties and Methods	Creating a table, Loading data into a table, Retrieving information from a table, Selecting all data
SLO-6	Displaying Files, Working with cat, more, less command	Working with Operators, If & Switch, Working with While, for, foreach,	Variable Interpolation and Printing Strings	Declaring a Class, Declaring methods and Properties and Declaring constant.	Sorting rows, Date Calculation, Working with Null values, Pattern Matching
SLO-7&8	Lab2: Working with files and directory commands	Lab 5: Operators & Control Statements	Lab 8: Functions & Strings	Lab 11: Arrays & Objects	Lab 14: Working with various MySQL Queries
SLO-9	Printing Files, Managing Directories and Working with mkdir, rmdir, cd and pwd commands	Embedding PHP in Web Pages and Standard (XML) Style, SGML Style	Accessing Individual Characters, Cleaning Strings, Encoding and Escaping, Comparing Strings and Manipulating and Searching strings	Inheritance and Interfaces, Traits, Abstract Methods	Introduction to Working with MySQl Database using PHP, Connecting to MySQL database, Querying database,
SLO-10	Controlling Access to directories and files, Introduction to Vi editor and Working with Vi editor	ASP Style and Script Style	Introduction to Regular expression, Pattern matching and substituting new text for matching text and Splitting a string into an array of smaller chunks	Constructors, Destructors, Introduction to Introspection and Examining an Object	Retrieving and displaying the results, Modifying data, Deleting data and Designing simple database application
SLO-11&12	Lab 3: Working with file commands, Creating and modifying files using Vi Editor	Lab 6: Embedding PHP script in HTML	Lab 9: String Manipulation	Lab 12:Introspection and Serialization	Lab 15: Developing Simple Database Applications

Resources			
1	Richard Petersen (2006), Linux: The Complete Reference, Sixth edition, McGraw Hill Professional.	2	Lee Babin, Nathan A. Good, Frank M. Kromann, Jon Stephens (2005), "PHP 5 Recipes, A problem solution approach", après.
3	Rasmus Lerdorf, Kevin Tatroe, Bob Kaehms, Ric McGredy (2002), "Programming PHP", O'REILLY (SPD).	4	Vikram Vaswani (2008), PHP: A BEGINNER'S GUIDE, McGraw-Hill.

Assessment

Bloom`s Level of Thinking		Continuous Learning Assessment (CLA) (50% weightage)								Final Assessment (50 % weightage)	
		CLA – 1		CLA – 2		CLA – 3		CLA – 4*			
		(20 %)		(20 %)		(30 %)		(30 %)			
		Theory (%)	Practice (%)	Theory (%)	Practice (%)	Theory (%)	Practice (%)	Theory (%)	Practice (%)	Theory (%)	Practice (%)
1	Remember	20	20	20	20	15	15	20	20	20	20
2	Understand	20	20	20	20	15	15	20	20	20	20
3	Apply	20	20	20	20	20	20	20	20	20	20
4	Analyze	20	20	20	20	20	20	20	20	20	20
5	Evaluate	10	10	10	10	15	15	10	10	10	10
6	Create	10	10	10	10	15	15	10	10	10	10
	Total (%)	100	100	100	100	100	100	100	100	100	100

Strategies

Technology		Pedagogy / Andragogy		Sustainable Development	
Simulations		Clarification/Pauses	✓	Good Health & Well Being	✓
Presentation Tools	✓	Group Discussion	✓	Quality Education	✓
Learning Management System	✓	Hands-on Practice	✓	Gender Equality	✓
		Debate	✓		
		Interactive Lecture	✓		
		Brainstorming	✓		

* The evaluation can be done on one or more parameters that include, (i) Seminars, (ii) Mini-Project, (iii) Case-Studies, (iv) MOOC Certification, (v) Publication of Article, (vi) Presentation of Research Work in Conferences, (vii) Assignments

Designers

Professional Experts		Higher Institution Experts		Internal Experts	
1	Mr.Jothi Periaswamy, Founder/Chief Data Scientist, DeepSphere AI, 2 Venture Drive, #13-26 Vision Exchange, Singapore, 608526	1	Dr.S.Gopinathan, Professor and Head, Department of Computer Science, University of Madras, Guindy Campus,Chennai-600025	1	Dr.S.Belina V J Sara, Assistant Professor, SRMIST, KTR Campus, sbelinav@srmist.edu.in

Course Code	UCD24S02L	Course Title	Quantitative Aptitude and Logical Reasoning	Category	S	Skill Enhancement Courses	L	T	P	C
							0	0	2	1

Course Offering Department	Career Guidance	Pre-requisite Courses	Nil	Co-requisite Courses	Nil	Progressive Courses	Nil	Data Book / Codes/Standards	Nil

CLR	The purpose of learning this course is to:
CLR-1	Illustrate the application of different principles in solving mathematical problems
CLR-2	Foster students' curiosity and understanding of concepts related to profit/loss, interest computation, and averages
CLR-3	Analyze fundamental mathematical concepts concerning permutation and combination, as well as time and work, with a critical perspective
CLR-4	Equip students with the abilities essential for generating and comprehending data, focusing on topics such as cubes, dices and blood relations
CLR-5	Empower students to grasp the fundamentals of reasoning

Outcomes (CLO)	At the end of this course, learners will be able to:	Depth				Attainment			Programme Learning Outcomes									
		1	2	3	4	1	2	3	1	2	3	4	5	6	7	8	9	10
		Conceive	Design	Implement	Operate	Bloom's Level of Thinking	Expected Proficiency (%)	Expected Attainment (%)	Problem Solving, Critical Thinking, Creativity Solving	Communication Skills, Collaborating Skills	Independent Thinking, Analytical Reasoning, Learning to Learn ,Research Skills	Leadership Qualities, Professionalism, Autonomy, Accountability	Digital Technology Skills	Value Inculcation, Multicultural inclusivity	Environmental Action, Community Engagement	Entrepreneurial Risk Taking	PSO-1	PSO-2
CLO-1	Grasp, evaluate, and tackle problems involving numbers and percentages	✓	✓	-	-	2	85	75	3	1	3	-	2	2	-	-	-	-
CLO-2	Develop, solve, interpret, and apply fundamental mathematical models relevant to everyday situations	✓	✓	✓	-	2	85	75	3	1	3	-	2	2	-	-	-	-
CLO-3	Realize the principles of permutation and combination, probability, time and work, and adopt simplified and innovative approaches to problem- solving	✓	✓	✓	✓	3	85	75	3	1	3	-	2	2	-	-	-	-
CLO-4	Comprehend the concepts of data interpretation, data sufficiency, coding and decoding	✓	✓	✓	✓	3	85	75		1	3	-	2	2	-	-	-	-
CLO-5	Solve logical puzzles and reasoning challenges	✓	✓	✓	✓	3	85	75		1	3	-	2	2	-	-	-	-

Session	CLO - 1	CLO - 2	CLO - 3	CLO - 4	CLO - 5
	6	6	6	6	6
SLO-1	Classification of numbers and Test of divisibility	Profit and Loss	Permutation and Combination	Cubes and Dice	Direction Sense
SLO-2	Unit digit and Trailed zeroes	Ratio and Proportions	Problems on Probability	Data Interpretation	Number Series and Word Series

SLO-3	Problems on HCFand LCM	Simple Interest and Compound Interest	Time and work - Men and Work	Data sufficiency	Odd man out Missing Number and Wrong Number
SLO-4	Problems on Partnership	Word problems on Linear and Simultaneous Equations	Time and Work - Pipes and Cisterns	Seating Arrangements – Linear and Circular	Puzzles - Concepts & Problems Syllogisms - Concepts & Problems
SLO-5	Problems on Percentage	Problems on Averages	Time, Speed and Distance - Problems on Trains	Problems on Blood Relations	Problems on Clocks
SLO-6	Percentage - Increasing & Decreasing functions	Mixtures and Alligations	Time, Speed and Distance - Boats & Streams	Coding – Decoding	Problems on Calendars

Resources

1	Abhijit Guha, Quantitative Aptitude for Competitive Examinations, Tata McGraw Hill, 5th Edition	4	Edgar Thrope, Test of Reasoning for Competitive Examinations, Tata McGraw Hill, 6th Edition
2	Dr. Agarwal. R. S, Quantitative Aptitude for Competitive Examinations, S. Chand and Company Limited, 2018 Edition	5	Dinesh Khattar, The Pearson Guide to Quantitative Aptitude for competitive examinations, Pearson, 3rd Edition
3	Archana Ram, Place Mentor: Tests of Aptitude for Placement Readiness, Oxford University Press, Oxford, 2018	6	P A Anand, Quantitative Aptitude for competitive examinations, Wiley publications, e book, 2019

Assessment						Strategies					
Bloom`s Level of Thinking		Continuous Learning Assessment (CLA) (100% weightage)				Technology		Pedagogy / Andragogy		Sustainable Development	
		CLA – 1	CLA – 2	CLA – 3	CLA – 4*	Simulations	✓	Clarification/Pauses	✓	Good Health & Well Being	
		(20 %)	(20 %)	(30 %)	(30%)	Presentation Tools	✓	Group Discussion		Quality Education	✓
		Practice (%)	Practice (%)	Practice (%)	Practice (%)	Learning Management System	✓	Hands-on Practice	✓	Gender Equality	
1	Remember	20	10	20	10			Debate			
2	Understand	20	10	20	10			Interactive Lecture	✓		
3	Apply	20	20	20	20			Brainstorming	✓		
4	Analyze	20	20	20	20						
5	Evaluate	10	20	10	20						
6	Create	10	20	10	20						
Total (%)		100	100	100	100						

* The evaluation can be done on one or more parameters that include, (i) Seminars, (ii) Mini-Project, (iii) Case-Studies, (iv) MOOC Certification, (v) Publication of Article, (vi) Presentation of Research Work in Conferences, (vii) Assignments

Designers					
Professional Experts		Higher Institution Experts		Internal Experts	
1	Mr. P. Chockalingam, Senior Lead Software Engineer, Virtusa Consulting Services Private Ltd, DLF IT Park SEZ, Chennai – 600089 p.chockalingam1986@gmail.com	1	Dr. G. Saravana Prabu, Asst. Professor, Department of English, Amrita Vishwa Vidhyapeetham, Coimbatore - 641112 g_saravanaprabu@cb.amrita.edu	1	Dr.SathishK,HOD,DepartmentofCareerGuidanceCell,FSH,SRMIST hod.dcgc.ktr@srmist.edu.in
				2	Dr.AarthiS,AssistantProfessor,DepartmentofCareerGuidanceCell,FSH,SRMIST aarthis4@srmist.edu.in

Course Code	UNS24Y01L UNC24Y01L UNO24Y01L UYG24Y01L	Course Title	NSS/NCC/NSO/YOGA	Category	Y	Mandatory Course	L	T	P	C
							0	0	0	0

Course Offering Department	NSS	Pre-requisite Courses	Nil	Co-requisite Courses	Nil	Progressive Courses	Nil	Data Book / Codes/Standards	Nil

CLR	The purpose of learning this course is to:	Depth				Attainment			Programme Learning Outcomes										
		1	2	3	4	1	2	3	1	2	3	4	5	6	7	8	9	10
CLR-1	Understand themselves in relation to their community																	
CLR-2	Develop among themselves a sense of social and civic responsibility																	
CLR-3	Utilize their knowledge in finding practical solution to individual and community problems																	
CLR-4	Develop competence required for group-living and sharing of responsibilities																	
CLR-5	Acquire leadership qualities and democratic attitude																	
		Conceive	Design	Implement	Operate	Level of Thinking	Expected Proficiency (%)	Expected Attainment (%)	Problem Solving, Critical Thinking, Creativity	Communication Skills, Collaborating Skills	Independent Thinking, Analytical Reasoning,	Leadership Qualities, Professionalism,	Digital Technology Skills	Value Inculcation, Multicultural inclusivity	Environmental Action, Community	EntrepreneurialRiTaking	PSO 1	PSO 2
CLO	At the end of this course, learners will be able to:																	
CLO-1	realize themselves in relation to their community	✓	✓	-		2	85	75	3	-	-	1		3	3	2		
CLO-2	Develop among themselves a sense of social and civic responsibility	✓	✓	✓		2	85	75	3	2	1	2		3	3	1		
CLO-3	find practical solution to individual and community problems	✓	✓	✓	✓	3	85	75	3	1	3	1		3	3	1		
CLO-4	Develop competence required for group-living and sharing of responsibilities	✓	✓	✓	✓	3	85	75	3	3	2	3		3	3	2		
CLO-5	develop leadership qualities and democratic attitude	✓	✓	✓	✓	3	85	75	3	3	2	3		3	3	3		

Assessment is Fully Internal

Assessment					
Bloom's Level of Thinking		Continuous Learning Assessment (CLA) (100% weightage)			
		CLA – 1 * (20%)	CLA – 2 * (30%)	CLA – 3 * (30%)	CLA – 4 * (20 %)
		Practice (%)	Practice (%)	Practice (%)	Practice (%)
1	Remember	20	20	20	20
2	Understand	20	20	20	20
3	Apply	40	40	40	40
4	Analyze	20	20	20	20
5	Evaluate				
6	Create				
Total (%)		100	100	100	100

Strategies					
Technology		Pedagogy / Andragogy		Sustainable Development	
Simulations		Clarification/Pauses		Good Health & Well Being	✓
Presentation Tools		Group Discussion	✓	Quality Education	
Learning Management System		Hands-on Practice	✓	Gender Equality	✓
		Debate	✓		
		Interactive Lecture	✓		
		Brainstorming			

***CLA s are evaluated based on (i) participation in awareness programmes, (ii) participation in outreach programme, (iii) Community Services (iv) Camps (National, State, Regional)**

Resources	
1.	NSS Manual (Revised), Government of India

Designers					
Professional Experts		Higher Institution Experts		Internal Experts	
1	Dr Samuel Chellaiya C Regional Director, NSS Government of India	1	State Officer, NSS Tamil Nadu NSS	1	Dr Prakash V, NSS Coordinator, SRMIST, AP, department of Economics, FSH, SRMIST Prakashv2@srmist.edu.in
				2	Dr Yogalakshmi, NSS Programme Officer, FSH, SRMIST.